



WOOL PRESS

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GOATS - YET AGAIN!

&

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PLUS ALL THE REGULAR FEATURES AND MORE!

*The Wool Press is published by the Department of Agriculture. Editor: Mrs Charlene Rowland
Telephone: 27355 Fax: 27352 or e.mail: doa.fig@horizon.co.fk*

EDITORIAL

The Department of Agriculture would like to wish all the farmers and readers of the 'Wool Press' a Very Happy and Prosperous New Year for 1999.

With the festivities all over for another year, I expect you are all getting back into the swing of things with shearing. It won't be long before the sports are upon us again!

Gillian is back from her training in Tasmania, I will try and persuade her to write an article on her achievements in the next 'Wool Press'.

Incentive Scheme Whole Farm Plans are starting to come in now and are looking good. Don't forget to contact us if you need any further advice or guidance when you are doing yours.

The National Stud Flock sale at Saladero this year will be held on the 17th of March, 1999. Doug Cartridge will supply more details of the sale in the next issue of the 'Wool Press'. Also on the 22nd of April, 1999 a farm discussion group will be held at Port Sussex. Doug will also keep you informed on this event.

A TRUE STORY

By Bob Reid

Thirty years ago, one of the fastest and most famous shearers in Australia was a bloke called Charlie Gibbs. Charlie shored all the "long runs" between Queensland and New South Wales, shearing 200 a day, day after day, week after week, month after month. It was said of him that he was one of the very few shearers to have shorn 50,000 in a year.

This story relates to an incident that occurred after Charlie arrived back in Burke after a very long run.

As he walked into the hotel, the publican caught his eye and said: "*Charlie, there's a cocky just out of town wants to know if you'll shear his sheep. Can you give him a ring?*" (A cocky is a small scale farmer).

Charlie sauntered off to the telephone and rang the cocky.

"*Oh, Mr Gibbs*" (Cockies always call shearers 'Mister' before they shear the sheep), "*I heard your shed had cut out and was wondering if it would be possible for you to come and shear my sheep*".

"*Oh, I suppose so*" said Charlie, "*How many have you got?*"

"*Three hundred and twelve,*" replied the cocky. There was a silence and Charlie said "*What are their names?*"

THIS MONTHS CONTRIBUTORS

Bob Reid	Director of Agriculture	Robert Hall	F.I. Wool Growers
Ailsa Heathman	Farmer, Estancia Farm	Nigel Knight	Farmer, Coast Ridge Farm
Jim Elliott	Ex. Met. Officer	Doug Cartridge	Wool Adviser
Derek Clelland	Laboratory Technician		

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ALTERNATIVE FIBRES: SOME THOUGHTS FOR DISCUSSION

By Bob Reid & Doug Cartridge

Global economics and rapidly changing fashion trends are combining to draw natural fibre producers and the worlds downstream processors closer together to achieve a common goal - the long term viability of their industry.

There is nothing like a crisis to provoke reaction and with the virtual collapse of the wool industry due to low wool prices, alternative land use and competition from other fibres, there is a serious threat to both established woolgrowers and processors. The increasing sophistication of synthetic textiles is continuing to influence consumer demand. The percentage of the market share of sheep's wool has in our opinion declined to an extent that it is now becoming a "rare" or "exotic" fibre and its market increasingly "high end". China for example, looked upon as a prime market, will gradually upgrade its quality and increasingly concentrate on production for export to obtain foreign exchange. This will impact on raw wool exporting countries and is likely to cause wool to further encroach on the "high end" market. Wool will compete with Alpaca, Mohair, Cashmere and this competition will assuredly grow. On the other hand "If you can't beat them, join them" may well provide part of the marketing answer for many of the natural fibre industries. Note wools' entrance into the cotton denim fashion area for example.

So what does this mean for the Falklands? Logically we should probably continue on the path of increasing sheep numbers, producing a very high quality product reducing the average micron down to the 22 - 26 range, and strongly promote our chemical free status, ensuring that we maintain market share. In time producing sufficient wool that will allow us to value add in the Islands, building a wool scour and core testing facility perhaps, and in time a top making plant and even a cloth mill. Doing what others do - taking charge of our own destiny. A pipe dream!!! No we don't think so as there are a number of other wool producing countries with similar clip sizes (or much smaller) than ours who do the above - namely the Faeroe Islands, Iceland, and Tasmania. They do so profitably by producing a branded final product backed by good promotion of not only their product but of their unique qualities.

We should also seriously look at farming animals other than sheep, to produce fibres that can find a place in the world market. However, just finding another fibre producing animal is only part of the equation, as there are some other critical factors that need to be considered. Any new industry needs to develop a united front, able to present itself in a strong, co-ordinated manner to government, processors and customers. At the top of a list of industry goals there is the necessity of price competitiveness for the industry. Without it any new fibre will be unable to compete in export markets. What's more, any new development or small market gains are likely to result in benefits to overseas producers rather than the Falkland Island farmer (we need to remember the mistakes of the wool industry - surplus, stockpile and forced sales).

Product development is another important element in building a successful fibre industry. We need to be aware that "intermediate processors", particularly in spinning and knitting sectors of the textile industry are not known for their innovative approach to product development. There is a good case to be made for producers to build close relationships with the markets for which their products are

destined. Growers need to know that their products reflect quality and satisfy consumer demands. They must also be in a position to react quickly to market shifts.

There is also a view that fibre-volume must reach a "critical mass" to enable the industry to provide processors with viable processing lots to sustain the market, market agents, and to allow efficient transport and handling. The figure often quoted is a total annual figure of 500,000 kg to achieve the critical mass. Therefore, any new fibre industry will find it easier in some ways to enter an existing market rather than start small and attempt to grow quickly.

So which fibres may be sensibly considered for the Falklands?

MOHAIR

Mohair production from Angora goats is certainly worthy of consideration. In many ways mohair and sheep's wool are both similar in price and very sensitive to quality, and quality in turn, is affected to a large degree by nutrition. Mohair fibre diameter increases with age at a faster rate than wool.

Principal features are:-

- Kid mohair fibre diameter is 25 microns.
- Strong adult fibre diameter is 36 microns.
- Mohair from males is coarser than females.
- They need shearing every six months.
- Old animals lose value quickly.
- Sheep and mohair handling facilities are virtually interchangeable.

Mohair is very demand dependent on fashion and the market fluctuates widely from year to year and there is often a surplus on the world scene. Texas and Turkey currently produce the best fibre and have sufficient flock sizes to respond to market needs.

CASHMERE

In contrast to mohair, the world demand for cashmere appears to be consistently greater than the supply, and the future for it as an alternative livestock enterprise looks more secure than that of mohair production.

Principal features are:-

- Micron ranges from 14 to 18.
- Fibre diameter increases only slightly with age.
- Castrated males produce well.
- Higher nutrition does not affect fibre diameter.
- The cashmere needs to be harvested in the spring.
- The meat is also in demand world-wide.

That cashmere goats thrive in the Falklands is well illustrated by the adaptability of the Pebble Island herd, and with the current world price of £55-80 per kilogram then clearly they warrant some attention.

ALPACA

This South American camelid is finding favour throughout the world although it has been suggested that interest is coming more from animal suppliers than fibre producers. Nevertheless there has been a gradual increase in alpaca fibre entering the world market. Alpaca yarn is currently selling in the UK for £15-20 per kilogram and the farmer getting £1-2 per kilogram prior to processing.

Principal features are:-

- Micron ranges from 22-24 microns.
- Fibre is soft to touch, often compared to wool of 3-4 microns finer.
- High quality thermal properties.
- Absorption of humidity from the air is low.
- A great deal is known about the husbandry of the animal.
- It has been predicted that by 2020 there will be 16 million alpacas in production.

GUANACO

The Guanaco produces exceptionally fine fibre of which there is an assured high value international market. If good quality 16 to 17 micron guanaco fibre were available in commercial quantities it would be at least as valuable as cashmere and would probably command a price in excess of \$US 200 per kg. One of us (D.C.) has just returned from visiting the Macaulay Land Use Research Institute and Rowett Research Institute in Aberdeen and has had discussions with the research team that pioneered this animal in Scotland.

An important factor to realise is that the guanaco is a wild animal and as such would need to be farmed rather than ranched, similar in fact to the system developed for deer in Australia and New Zealand. In Scotland guanaco handling facilities are similar to those for red deer, a modified cattle crush plus secure indoor pens which provide areas for sorting animals. Fences where animal pressure will occur must be above an adults maximum head height (2m). In a grazing situation they respect fences and will rarely adapt to jump unless they are pressured or frightened. A secure boundary fence was recommended which should take the form of a traditional deer fence.

Principal features are:-

- High value fibre (500 grams of fibre per head per year).
- Fibre can be harvested every second year.
- Animals already in the Falklands are well adapted.
- Husbandry needs to be researched.

This animal will require a long term approach. (If we had started 20 years ago and had been successful in our husbandry techniques - 80,000 animals would be bringing in £2.46 million).

This short paper is only intended as an introduction to the subject of potential new fibres for the Falklands. If you want to know more and are interested in the potential of these industries then write to us c/o The Wool Press, after all in the end individual farmers need to decide which direction they wish to take.

THE FUTURE DIRECTION OF FARM BUSINESSES IN THE FALKLAND ISLANDS

By Robert Hall

There appear to be three fairly distinct lines upon which agriculture and farming businesses are likely to develop in the medium term and there are already many examples of each:

1. Farms can amalgamate into larger units thus spreading the Fixed Costs of running a farm and living in Camp. Such sheep farms or stations will not be a return to the "old large farm" system because they will continue to improve efficiencies, by replacing labour with capital such as motor bikes and electric fences, and using specific labour as supplied by contractors etc.
2. Farm Businesses can intensify and increase the annual productivity of land, labour, management and/or capital that are already factors of production. This could be either in the form of producing more wool or an alternative enterprise (cattle, livery, pigs, tourism, vegetables etc).
3. Farmers could supplement their farm income with off farm work either with seasonal work such as tourist guides, "squidding" etc or permanent work such as a 38 hour per week job in Stanley.

Of the three lines outlined above, number 2, the intensifying of farm businesses is probably the most appealing direction for future development. Firstly intensification, unlike amalgamation or supplementary jobs, definitely keeps people in Camp and in Agriculture thus stemming the decline in the Camp population and maintaining a strong farming community. Secondly intensification would increase the Gross Domestic Product (GDP) from farming thus benefiting the whole Falkland Islands. Thirdly intensification would involve the local development of technologies for Falkland Islands agriculture, whether to increase wool production or some other enterprise, thus maintaining the challenge and excitement of farming.

Successful intensification enables farmers to do what farmers ultimately wish to do, namely to earn a fair living by farming their own farms as successful businesses. Inevitably there are risks in implementing policies of intensification, equally throughout history there have been risks in hoping to survive by "standing still". Whilst horticultural type enterprises may be developed, agriculture in the Falkland Islands will be based mainly on grassland for many decades to come, with the emphasis almost certainly upon ruminant animals such as the sheep for wool production.

Better grassland and more intensive use of pasture may be one approach for many farmers to include in their development strategy. Grassland is flexible, in that it can be used by various enterprises, not least the current main farm enterprise – sheep, thus the risks in developing grassland are lower than some of the more fanciful proposals published (by non-farmers) in recent times. Furthermore, currently FIG through the DOA and FIDC are generously funding a Pasture Improvement Scheme and Incentive Scheme, with the DOA additionally undertaking vital legume and grassland research. Farmers should utilise such schemes to the full. If farmers do not wish to use these schemes to start up new enterprises, then without exception farmers should consider seeking these funds to improve their pastures. Successful grassland improvement, which may or may not necessitate reseeding, should both intensify the productivity of a farm and presumably lift the farm's value. After the second world war's rationing of food in Britain, it was resolved to grow "two blades of grass, where one grew before". Farmers in the Falkland Islands might similarly resolve, this new year, to improve their pastures, utilising all the backup available.

ESTANCIA SHEARING COMPETITION

By Ailsa Heathman

Tuesday 29th December 1998 produced a glorious day for this years Estancia Shearing Competition and groups of people could be seen enjoying the sun outside while those more interested in the shearing keenly watched events inside.

The morning kicked off with five heats in the open competition for the twenty entrants and following eight semi finalists emerged: Mike Pora, Peter McKay, Mike Allan, Len Ford, Paul Phillips, Hew Grierson, Gary Pearce and Vaughan Rob. This brought us to the lunch break with an excellent barbeque produced by Jeanie McKay with help from Ken and Caroline Aldridge and Stella Middleton. Carol and Terance Phillips were providing the liquid refreshments from a bar behind the shearing shed whilst Donna Evans was serving snacks from her burger van. During the lunch break the youngsters had a sheep riding competition which earned them all a sweet or two.

Shearing recommenced with the intermediate competitors. Riki Evans was victorious with 38.35 points lost. Michelle Evans was 2nd with 45.9 points and James Butler was in 3rd place with 61.7 points.

A bit of fun and relaxation followed with the ever popular team shearing. Eight pairs of shearers took part, shearing three sheep each. Peter McKay and Andrew Smith took the shield for the Falklands, Mike Pora and Gary Pearce were 2nd from the 'Jennings Household' and 3rd were Critta Lee and John Fraser for the West Falklands.

The mood became more serious again when the open semi-finals began, followed by a close final producing a winner in Mike Allan with 51.95 points lost, Hew Grierson was 2nd with 52.2 points, Gary Pearce was 3rd with 52.6 points and 4th was Peter McKay with 53.8 points.

Paul Phillips took the cleanest pen of sheep award and all received their prizes from Pauline Kerr.

Throughout the day, an A.I. Cormo ewe hogget was penned outside and people were invited to estimate the micron of the wool and the weight of her fleece. After much plucking of wool, Philip Millers guess of 19.8 micron was nearest to the Agricultural Department Laboratory test result of 16.67. However, Bill Pole-Evans had made the nearest guess for the fleece weight by telephone. Hew Grierson shored the hog at the end of the day and the fleece weighed 6kgs with Bill's guess being 5.75kgs. Dave Gillet then took over the microphone from Tootie Ford and auctioned the fleece for the Stephen Jaffray Memorial Fund, raising £40.00. Tootie had been M.C for the day and kept us all entertained for the second year.

The events of the day were rounded off with the now traditional hangi produced from the depths of the earth by Keith Heathman.

Ron Binnie spent another day in the back pens judging the finished sheep and time keeping was in the hands of Diana Berntsen. The shearing board judges for the day were Mike Clarke, Robbie Maddocks, Owen Summers, Patrick Berntsen and George Smith. Many thanks to them all of them and to the many other helpers before and during the competition and to the very generous people who help to sponsor the event.

List of Sponsors:

Lister Shearing Equipment Ltd, Mr R Alazia, Farmers Association, Falkland Farmers, Falkland Islands Co. Ltd, Mr & Mrs J Jones, F.I.D.C., Mr & Mrs G Smith, Falkland Landholdings, Department of Agriculture, Mr & Mrs P Goss, Mr & Mrs R W Lee, Mr P Phillips, Mr N McKay, Mr & Mrs T Phillips, Mr & Mrs M J Clarke, Mr & Mrs R Binnie, & Stanley Services.

IS THE FALKLAND ISLANDS' CLIMATE REALLY CHANGING?

By Jim & Evie Elliott, on holiday from the UK

This letter is in response to the article written in the 109th issue of the 'Wool Press' written by Gerry Hoppè, Jim McAdam and Aidan Kerr.

Like Gucci bags, or Versace jeans, Climatology has become a fashion accessory. If the El Niño doesn't suit you, try Global warming or an Ozone hole. Volcanic dust and sea temperature changes were last season's high fashion, but today's trend setters would not be seen dead in them.

However, the authors should be congratulated on entering into the Falklands' climatological minefield, where previously angels feared to tread.

May I be allowed to make a number of assertions in order to urge caution about the interpretation of some of the data. For example:-

1. The climate of an area is simply a summary of the weather systems which have affected the area over the chosen period, so that the greatest attention should be given to the topographical and physical processes which have affected individual weather systems.
2. The Falkland Islands are only a small dot on the globe, but within this small area there are climatological differences which are significant (to agriculture etc) and can be explained by topographical reasons. Perhaps the major contributor is from Andean gravity wave flow, so that there is a small West and East change on local climate.
3. There is an important difference between data from the Stanley area and that from Mount Pleasant Airport (MPA). It could be argued that MPA has one of the best sites in the Falkland Islands and Stanley one of the worst. Whatever territorial claims are made, there can be no doubt that data from Stanley area is NOT representative of the Falklands. (Might I suggest that somewhere like Fox Bay might be closer to the ideal).
4. Even within the Stanley area there are important differences amongst sites. The British Antarctic and Falkland Island Meteorological Service site on Murray Heights (currently the Department of Agriculture building) is perhaps the site with the most quality controlled data, but with an exposure which is far from ideal (e.g. an experiment to find the best site for a rain gauge found that there was almost no correspondence between any pair of rain gauges of half a dozen around the buildings. 200ft on top of a ridge, surrounded on 3 sides by sea, can hardly be considered "ideal". However, the other Stanley sites from Cape Pembroke to Government House are little better - each with its own peculiarities.
5. The authors' comments about the lack of camp data are not wholly true. At the time of the 50th Anniversary of Falkland Island Government Air Service (FIGAS), tribute should be paid to the many camp weather observers who contributed to the knowledge of the weather (hence climate) of the Falkland Islands, mostly at the instigation of FIGAS with aircraft safety and operational efficiency in mind. Some, like Roddy Napier at West Point Island have continued throughout the entire period of operations - and still continue to do so. Unfortunately in earlier days, FIGAS was a Monday to Friday operation, so camp weather records are only for weekdays too!
6. As well as a mass of camp data, sadly often over short and broken periods, there is a mass of data from Stanley. As well as the standard sunshine, rainfall, temperature data, there is data on soil and earth temperatures, radiation (total diffuse and radiation balance) visibility, cloud base pressure and upper air data (comparable with MPA) and most importantly wind data. It could be said that in the Falklands, if you know the wind speed and direction, you are "almost there", in an understanding of the weather.
7. In addition to the 'operational' weather reports, there are rainfall data from a number of sites, and short period sunshine records from Fox bay and West Point Island. MPA has access to data from 3 high quality automatic weather stations, on Sea Lion Island, Pebble Island and Weddell Island, although the data are received via satellites in digital form, there has been no plan to process data into statistical form.
8. Finally, to come to the statistical analysis in the "Wool Press" article. I am sure that the statistics are impeccable, but the conclusions are questionable.

My assertion is that the Stanley area data display discontinuities which have sensible physical causes, but disallow the inference of long term trends. The clearest illustration is in FIGURE 4, where by drawing a vertical line through 1946 and 1986, the dates of site changes, the discontinuities can clearly be seen. The best fit line in the 1956 - 1986 period, taken in isolation, would now show an insignificant trend. Other graphs, say FIGURES 5 & 6, show similar data discontinuities. It is also worth noting that in the last century, the UK Meteorological office chose a 30 year period as the 'ideal'. As the climate of a site is continuously changing, it was considered that a 30 year period would contain sufficient data from which to derive means and extremes, but not as long as to be in danger of small changes in the local climate.

ADDITIONAL NOTES:

Although the rules for the measurement of sunshine duration are meant to arrive at a degree of consistency, some individual bias in measurement does occur. A very careful scrutiny of sunshine data might reveal decreases from both the Bali volcanic eruption in 1963 or 1964, and the more recent Hudson/Pinatubu eruptions.

Analysis of rain water in Stanley showed radioactive chemicals present in rainfall 'washout' from the dirty Russian and Chinese Northern High latitude bombs in the 1960's, implying some obscurity by pollutants.

The current DOA building (ex-met office) was acquired because of a sequence of very bad ice years in the 1957-59 International Geographical year period. The prefabricated hut was destined for Stonington base, but following attempts to land the base components from a ship in two consecutive years, the attempt was finally abandoned and the hut given to the Stanley Met. Office to replace the much smaller building used by the Royal Navy at the end of World War II.

Circumstantial evidence might also suggest that Cape Horn acquired its bad reputation when a large increase in shipping activity around the end of the last century, coincided with a particularly stormy period in the area.

There is a slight overlap in 1984-85 when there is simultaneous data from Royal Air Force (RAF) Stanley and MPA, when observations were made for Property Services Administration (PSA) and the contractors. The frequency of MPA extremes breaking old long term Stanley records, supports the notion of a very different site.

The Stanley data ended with the Argentinean invasion in April 1982.

RAF Stanley made operational weather observations from August 1982 until RAF Stanley closed in March 1986, (operational observations did not include rainfall, sunshine or extreme temperatures).

An important consideration is the sea surface temperature. Detailed statistics exist, mostly from observations taken from a bucket of sea surface water - an art in itself. Now satellite data has largely replaced the shipborn measurements, though no doubt some are still needed for quality control.

Sea surface temperatures can not only have an influence in air temperature modification, but sometimes also have an effect on sea fog and low cloud formation/dispersal, and hence sunshine duration.

Evaporation is a major factor for growers and farmers, but still no one seems to have grasped the nettle. Evaporation tanks may be difficult to operate, and Penman formulae may not give the best solutions, but until my retirement (1993) no one seemed keen to give it a try!

A COUPLE OF DATES FOR YOUR CALENDAR

Stud Flock Ram Sale - Wednesday 17th March at Saladero. Tamar FI will be ferrying from Port Howard to Brenton Loch (times and dates to be given later).

Port Sussex discussion group - Wednesday 22nd April, 1999.

More information on the above in the next issue of the 'Wool Press'.

WEST FALKLAND RAM & FLEECE SHOW 1998

By Nigel Knight

A beautiful warm, calm, sunny morning was an added incentive to Sheepowners and visitors alike to participate in the Twelfth West Falkland Ram and Fleece Show. This year's event was as usual held at Coast Ridge Farm Woolshed, Fox Bay Village, the day chosen this year was Tuesday 29th December 1998.

Some entries had already arrived by FIGAS from the outer Islands and East Falkland, whilst the rest were brought overland on the day.

During the morning Doug Cartridge assisted by Jason Alazia was kept very busy taking entries in the three ram classes and the three fleece classes. This also required all fleeces to be weighed for the benefit of the judges in the "fleece with the highest commercial value class". It also proved to be very useful for the general public in judging the "Fleece Classes" in the afternoon.

In all, twelve ram hoggets, eleven shearling rams and eleven mature rams filled the sheep pens. What fine specimens they were and a credit to their owners. Many of the entries showed considerable breeding influence from the National Polwarth Stud Flock.

The fleece tables were weighed down with thirty one hogget fleeces, twenty one fine wool fleeces and eighteen 'B' wether type fleeces. All of them displayed the best attributes of pure 'Falkland Wool'.

After the entries closed the centre of attention moved from the woolshed to the Social Club where the barbeque was in full swing once again in the capable hands of Lynn Blake with 'just a little help from her friends'. After indulging in food and drink the attention of all present then reverted to the Woolshed for the ominous task of judging the entries. Judging was the same as last year and by public ballot, except for the 'Highest Commercial Value Fleece', competition and the Supreme Champion and Reserve Champion Ram. Doug Cartridge, Tony Hirtle and Jason Alazia judged the fleece value on actual fleece weight, estimated yield, estimated micron and the current market prices. The Champion and Reserve Champion Ram was selected by close scrutiny of all exhibited rams.

The ram and fleeces were judged in the same way as before, here the participants were asked to select what they considered to be the five best rams or fleeces in all classes. Their five were also ranked in order of preference.

In the Under 21's Sheep Judging Competition, entrants were given the task of ranking five shearling ewes. Their choices were then judged alongside the choice of an experienced stockperson. Whoever came closest to the judge's score card won this competition.

After the judging, votes were collected and added together. Those entries with the highest number of votes won that particular class, with prizes being awarded for the entries with the four highest number of points.

At 6pm back in the Woolshed came the prizegiving. The Governor Richard Ralph was present to distribute the prizes at this year's show.



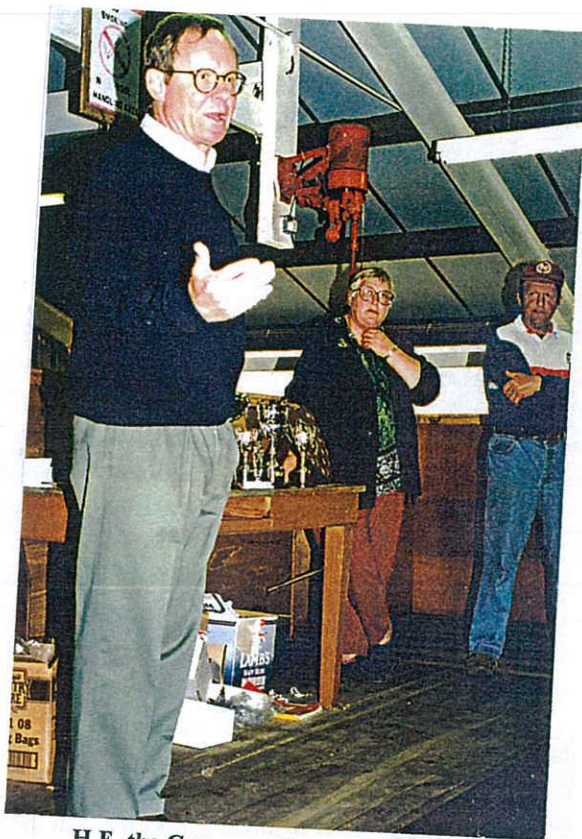
Sheep and wool being classed by competitors.



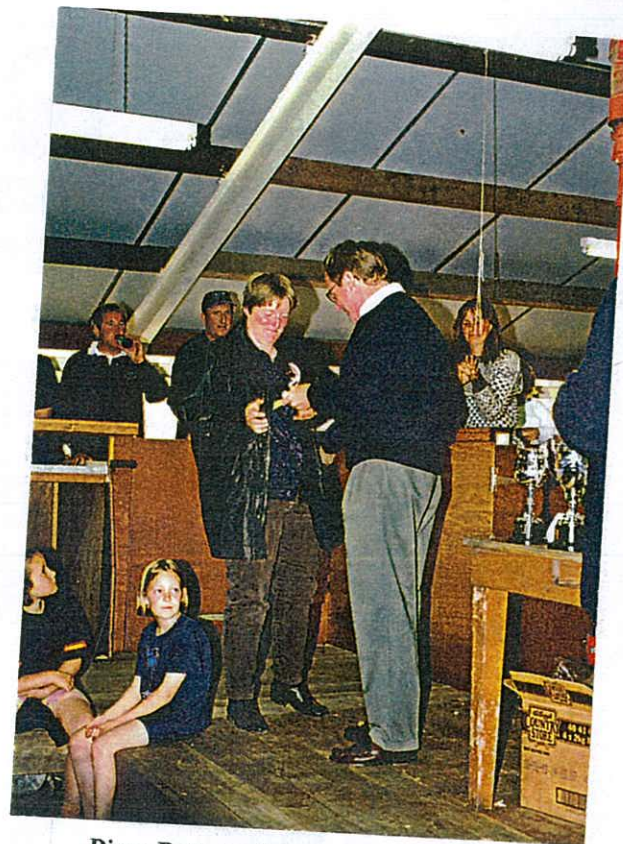
Onlookers taking an interest in the show.



Sally Bake, Judy Summers and Lidia Luxton counting ballot papers for points.



H.E. the Governor, Richard Ralph making his opening speech.



Diane Betts receiving a trophy on behalf of Ian & Susie Hansen.



Bill Luxton receiving a cup for Champion Ram.



Marlene and Ali Marsh showing all their trophies after the show.

Photographs:
Courtesy of Peter Nightingale,
West Lagoons Farm

PRIZE LIST

Prize list:

Class 1 - Full Wool Ram Hoggett

- 1st prize: Engraved Challenge Shield presented by Mr & Mrs Austin Davies & £100 donated by Cable & Wireless Plc
 2nd prize: £75 donated by Standard Chartered Bank
 3rd prize: £50 donated by Southern Cross Social Club
 4th prize: £25 donated by R.M. Pitaluga and family

Class 2 - Full Wool Shearling Ram

- 1st prize: Silver Cup presented by Dunnose Head Farm & £50 donated by Cable & Wireless Plc
 2nd prize: £75 presented by the F.I. Development Corporation
 3rd prize: £50 presented by Saddle Farm Computers
 4th prize: £25 presented by the Farmers Association

Class 3 - Full Wool Mature Ram

- 1st prize: Falkland Islands Wool Marketing Challenge Cup. A replica + £40 presented by Falkland Landholdings Ltd
 2nd prize: Prize donated by the Falkland Islands Company Ltd
 3rd prize: £50 presented by Port Howard Farm
 4th prize: £30 presented by Little Chartres Farm

Class 4 - Hogget Fleece

- 1st prize: Silver Challenge Cup & replica presented by Meridith Fishing Co. & Falkland Hydrocarbon Development Ltd
 2nd prize: £70 voucher donated by Falkland Farmers
 3rd prize: £50 fuel voucher presented by Stanley Services
 4th prize: £30 voucher also donated by Falkland Farmers

Class 5 - Any Fine Wool Fleece Other Than Hogget

- 1st prize: Governors Cup, Challenge Cup presented by H.E. the Governor replica donated by "Newton Investment Management Ltd" (FIG's investment managers)

All prizes in this class donated by Newton Investment Management Ltd

- 2nd prize: £75
 3rd prize: £50
 4th prize: £25

Class 6 - Any 'B' Type Wether Fleece

- 1st prize: Engraved Challenge Cup presented by Coast Ridge Farm + replica & £25 presented by Ursula Wanglin
 2nd prize: £60 donated by Falkland Islands Sheepowners Association
 3rd prize: £40 also donated by the F.I.S.O.A.
 4th prize: £25 donated by Stanley Electrical

Additional Prizes

Mrs Griz Cockwell and the Falkland Mill both donated sweaters for auction for show funds by R. Edwards.

Champion Ram, won by Chartres Farm. Prize of Patricia Luxton Trophy and replica from the Luxtons, Chartres. The reserve champion from Main Point Farm won £20 donated by Falkland Islands Wool Marketing.

Jim McAdam of Queens University of Belfast donated all rosettes and overall champion rosette.

1st, 2nd & 3rd prize winners in class 3, additional trophies donated by Peter Short, Falkland Supplies.

Challenge cup + £75 donated by FIDC for the fleece with the highest commercial value, won by Shallow Harbour. Est. Value £9.50 Farm with the most points - a Challenge Cup presented by Owen Summers, won by Shallow Harbour.

Guess the wether shearling £25 prize from Southern Cross Social Club won by Kieran Morrison. Actual weight 91 kilos.

Guess the weight of ewe fleece, donated by Lake Sullivan, £25 won by Ali Marsh and Marion Betts. Actual weight 1.5 kgs.

Guess the average micron from mid-side sample, £25 donated by Argos Fishing Co. Won by Karl Nightingale of 24.45 actual micron.

Winner of the under 21's sheep judging competition sponsored by DOA, won by Vikki Lee, runner up prize £20 from F.I. Wool Marketing by Sammy Hirtle, Tanya and Andy.

Additional Credits

Thank you to: FIGAS for flying fleeces free of charge. Tony, Lynn and friends for the Barbeque. Justin, Jason, Adele and Natalie for transforming the shed. Doug Cartridge and the DOA for the Assistance before, during and after the event. The Committee of the Southern Cross Social Club and not forgetting the residents of Fox Bay for being excellent hosts.

Won by:

Points:

Main Point Farm	98
Coast Ridge Farm	72
Coast Ridge Farm	59
Shallow Harbour Farm	50
Main Point Farm	85
Shallow Harbour Farm	60
Coast Ridge Farm	41
Chartres Farm	39
Chartres Farm	68
Shallow Harbour Farm	63
Boundary Farm	34
Boundary Farm	32
Pickthorne Farm	44
Main Point Farm	33
Shallow Harbour Farm	32
Shallow Harbour Farm	29
Shallow Harbour Farm	66
Shallow Harbour Farm	38
Shallow Harbour Farm	36
Coast Ridge Farm	29
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GOATS - YET AGAIN!!

By Bob Reid

In S.W. Queensland my father-in-law tells a story of two graziers (Australian for Livestock Farmers) who faced a difficult choice in 1980 when wool first came under serious threat. Both produced wool in the semi arid region. They were traditionalists on family properties and were considered to be both progressive and innovative within the wool industry. Diversification became the buzz word of the time - more beef, possibly kangaroos or emus, even goats were considered (feral animals being common pests in the region). Grazier A opted to do more of the same - some pasture improvement, finer wool, joined a Quality Assurance Scheme, invested in computer technology and saw his gross income gradually rise throughout the decade.

Grazier B had just come back from a holiday in the Big Smoke, and where he had (under enormous pressure from his wife's mob) been dragged to one of those fancy foreign restaurants (garlic and such) to partake of a family reunion. He ate what he thought was prime lamb, suprisingly thoroughly enjoyed it, and was amazed to find he had in fact eaten Capretto - a kid goat slaughtered at 8 to 10 weeks old. All of a sudden he saw dollar signs before his eyes for after all he had hundreds of feral goats running wild on his property and he had been shooting them as a pest. He decided to contact the local abattoir, they agreed to kill for him, and he spent the next two years catching wild goats and learning to tame them. His first approach to his local butcher met with a blank stare and a "WHAT MEAT!!". Not to be stopped at the first hurdle he approached an Italian Butcher in the Big Smoke and was greeted with "How many can you supply". That got him off to a good start and in 1985 the local Agricultural Department screened his goats and found nearly 50% were producing high quality cashmere. He then set out, successfully, to establish a cashmere enterprise. Last year he reduced his sheep numbers from 10,500 to 8,000 and he runs a goat herd in excess of 2,000 animals. He still owes the bank quite a bit of money but is not by any means under threat.

Graziers A felt the full brunt of the wool market collapse and is up to his eyeballs in debt, has unsold wool in his shed and his wife went back to nursing.

My father-in-law's moral being "Don't shut your eyes to an opportunity".

Cashmere is recognised as a luxury fibre, commanding some of the highest prices in the world for textiles. The finer portion of the cashmere goes into luxury knitwear (called hosiery) products, sometimes as a blend of silk. The coarser products are used in the weaving trade for items such as scarves, travel rugs and cloth for luxury coats and suits. The uncertainty and speculation which surround the production and availability of cashmere have increased its appeal, sometimes sending prices soaring upwards. The type of person who buys cashmere is not usually deterred by price. Unlike mohair, which is more subject to the vagaries of fashion, cashmere has a high proportion of perennially loyal consumers. However, the cashmere sector is not immune from market forces. The market is affected by price rises and fashion can still swing prices.

Let's assume you are now interested in the possibility of running a goat herd. The basic questions that need to be asked if considering a new cashmere enterprise are:

- Is my camp suitable for cashmere goats?
- What are the capital requirements?
- Will goats make me more money than my present enterprise?
- What is the price risk involved?
- Do other enterprises benefit from the pasture management possible with cashmere goats?
- How would the cashmere enterprise combine with other enterprises in terms of labour and grazing management?
- How sensitive are returns from the cashmere to management error?
- What will my neighbours and other family members think?

The likely returns from cashmere goats compared to other enterprises is of paramount importance and need to be established. However with current prices around £55 - £80 per kilogram and average production levels of 200 grams per head (500 grams not being exceptional) it should be fairly easy to establish a comparison with wool production. A considerable amount of the prejudice that many farmers seem to have against goats would disappear if superior returns are proved.

WHAT AREAS SUIT CASHMERE GOATS?

Around the world cashmere goats are run in a range of environments ranging from quite arid to high humid mountains. They are not normally associated with very wet country. They are certainly well adapted to Pebble Island and information from Patagonia suggests they prefer to run in Diddle-dee ground. However like any other ruminant they respond to improved pasture but suprisingly do not eat White Clover (they do thrive on other legumes e.g. Tree Lupins). With adequate feed, goats tend to become quite territorial. They like to stay in one area and after they become used to an area, they are less likely to roam. Fences must be checked regularly after goats have been moved to a new area. As they mature and get stronger, wether goats will test fences more than does.

WHAT ARE THE CAPITAL COSTS?

Besides the cost of the animals (as yet unknown in the Falklands), other capital expenses could also be significant. Major costs may be needed to upgrade fences and to provide a shearing facility if one is not available and this can be quite expensive. In very exposed areas kidding should be carried out in a sheltered area - tussac, Fachine and/or Big Fern would apparently be ideal.

Cashmere goats do require good fencing. If a new fence is being built, a seven wire fence with 3 hot wires is recommended by Australian and New Zealand farmers. However, many producers have successfully upgraded existing fences by adding a live outrigger wire 20cm out and 20 cm above the ground. Fencing costs will vary from £1200 per kilometre for an elaborate new fence to £150 per kilometre for an outrigger. Again in Australia and New Zealand most farmers train goats to respect electric fencing in a small training paddock which has a very good electric fence. Once they respect the fences they are moved to other areas.

There are two options for harvesting the cashmere, shearing and combing. If shearing is chosen facilities are required etc. As a cashmere goat is generally shorn standing up with the aid of a goat bail they can be shorn easily by the farmer. Sheep shearing sheds are quite suitable. However, with increasing awareness of contamination between fibres, a thorough cleaning is required in switching from sheep to goats and vice-versa. Combing may be the preferred option in the Falkland Islands done to the timing required to minimise fibre loss and the likely reduction in losses done to expose part harvest.

Up grading of yards may also be required. If sheep yard rails are low they may need to be raised. Yards are much better if they do not have a flat surface on the top rail onto which a goat can jump, the top is best as a wire rather than a rail.

VARIABLE COSTS

Costs of running Cashmere goats are likely to be lower than sheep, mainly because shearing can be done by the owner, and there is no necessity to wig or crutch. As a guide to the time required for shearing it is accepted that 30 can be shorn in a two hour run. Some of this time is also involved in classing the fleece.

PERCEPTIONS

There is a considerable amount of negative sentiment about goats in some quarters. There are some good reasons for this negative attitude, however much of it is through lack of understanding. Most ill feeling is based on goats not being kept in by adequate fencing or being poorly managed.

THE FUTURE

Cashmere goats probably make economic sense and they have a tremendous capacity for improvement. Barriers to progress are now largely attitudinal rather than practical and in production rather than marketing. However, elsewhere in the world, innovation has been one characteristic of goat farmers and as a key some guidelines are:-

- Adopting a fine wool, not crossbred philosophy as a model for farming goats.
- Not using sheep solutions for goat problems.
- Goat proofing boundary fences.
- Starting with a small, good quality flock and learning about goat farming.
- Observing goats, discussing and sharing the knowledge with objective people.
- Keeping management simple, and concentrating on the basics of good shearing and feeding management.

CONCLUSION

It is possible that a cashmere goat enterprise is a realistic enterprise choice for many farmers seeking diversification. The markets for cashmere fibre are looking relatively secure and the price prospects for Falkland Island cashmere, with its chemical free status, are seemingly good. If sufficient farmers could maintain volumes where firms can market cashmere products that can be marketed as uniquely Falkland Island cashmere then the industry would quickly become self-sustaining. Cashmere is a true luxury fibre which should always be in demand by the world's increasing numbers of affluent people.

The biggest impediment to start the new industry will be the capital required to get the fencing right and altering negative perceptions that are widespread in the farming community. It will also take a concerted effort by a few dedicated producers to see the potential new industry achieve export status from the Islands.

A DIFFICULT CHOICE, A CHANGE OF DIRECTION. AN INTERVIEW WITH A TASMANIAN FARMER.

By Bob Reid

Change is something that seems to haunt us in this modern world. If you like me then you wish that the "good old days" of predictability, and "knowing where you are" would return. But the reality is that they will not and just like the grammar in this sentence even the language we use is changing.

During a recent vacation I took time out to talk to a young Tasmanian farmer (who shall be nameless) because I knew of the profound changes that he had had to make upon taking up the running of the family farm. He had left the farm, went to Agricultural College, bummed around in Europe for a couple of years, married in England and with a death in the family decided to return to the "quiet way of life". It took him less than a week to figure out that he could not survive on a 4,000 ha (9880 acres) property run as it had always been by his father and grandfather. In the 10 years since taking up the challenge he has made changes both in how he views farming and in the objectives of his own enterprise. What follows is a summarisation of a day long discussion. It is not an exact model for the Falklands to follow but some of the principles and directions provide guidance for those of us who see change as inevitable.

HISTORY

Property size:	4,000 ha (9880 acres) 55% improved pasture 10% semi-improved pasture 35% bush/native pasture
Rainfall	450mm/18" annual rainfall
Enterprise	Livestock only (not reliable cropping country)
DSEs	Approx. 18,000 to 20,000
Flock Structure	35% Breeding ewes 50% Dry (wethers and hoggets) 15% Cattle
Stock Management	<ul style="list-style-type: none">• Continuous grazing with some rest periods for pasture.• Fodder crops grown for young stock during winter.• Need for supplementary feeding.
Farm Development	<ul style="list-style-type: none">• Clear land and cultivate.• Sow fodder crop for 1 to 2 years.• Direct drill permanent pasture.• Top dress with superphosphate when profitable.

WHY CHANGE?

- Disappointment in the permanence of some improved pasture.
- Reliance on expensive supplementary feeding and fodder production.
- Realisation that management has a big part to play in profit and this needed improving.
- Inputs and costs were increasing while productivity and profit were extremely variable and unpredictable.
- Clearly in a rut, going broke fast and needed a sustainable solution.

PROCESS OF CHANGE

- Took a risk and invested savings in a training scheme.
- The scheme did not provide all the answers but broadened his understanding of the farm as a whole system and as a result he was able to see opportunities of which he had previously been unaware.
- After training, took six months to think about options. Talked a lot with Department of Agriculture and other "progressive" farmers.

- He then established an experimental grazing cell of 162 ha (400 acres) using a 15 paddock subdivision and water scheme.
- The cell was initially stocked with 1600 adult wethers, the stocking rate was increased with cattle (cows and calves) and additional wethers.

After eight months the results were exceptional:

1. Wool cut per head increased 20% over the previous year.
2. Final body condition score was 4 plus.
3. Monitored worm burden monthly and it never exceeded 250 E.P.G.
4. Increased stocking rate and pasture availability. He initially set the stocking rate at 10DSE/ha, as pasture quality and quantity improved he increased stocking rate to eventually peak around 30DSE/ha during late spring.
5. These encouraging results gave him the confidence to expand this management system to the whole farm.
6. Attended another cell grazing training scheme to reinforce his original enthusiasm.

CURRENT FARM MANAGEMENT

Set an objective: *To maximise the effectiveness of rainfall, soil nutrients and sunlight energy to increase the desirability and sustainability of pasture composition.*

Management Principles:

- 1. Match stocking rate with carrying capacity.**
 - He now tries to assess feed availability and plan accordingly.
 - He runs a reducing number of breeding animals so he can more easily adjust stocking rate.
 - Has on farm livestock sales to reduce dependency on timed market.
- 2. Rest periods are adjusted according to plant growth.**
 - Mobs are rotated according to pasture rest requirements i.e. slowly in winter and faster in the spring.
 - He previously had up to fifteen mobs of sheep and five herds of cattle, they are now run as three herds.
 - This allows 96% of the farm to be resting at any one time.
 - Average days grazed per paddock is approximately 25 days per annum.
- 3. Short graze periods resulting in high quality feed and high intake.**
 - He utilised existing paddock subdivisions i.e. 57 paddocks which means approximately 20 paddocks per cell mob.
 - He aims to combine livestock into a minimum number of "flerds". e.g. last year one "flerd" consisted of 400 breeding ewes, 1000 2 tooth wethers and 45 cows.
- 4. High stock density to maximise pasture utilisation.**
 - Before paddocks had a stock density of about 9DSE/ha for 365 days.
 - Now the stock density is about 200DSE/ha for 3 to 5 days.
- 5. Herd effect.**
 - Used as a tool for land rehabilitation e.g. feed out on a degraded or fern infested areas.
- 6. Monitor and replan.**
 - He uses grazing charts to record DSE days/ha removed from each paddock.

BENEFITS

- Better pasture and livestock productivity e.g. ewes cut 20% more wool/ha.
- More even plane of nutrition resulting in better stock condition throughout the year.
- High utilisation of feed.
- Reduced overgrazing resulting in better productivity of perennial grasses.
- Simplification of stock management and improved efficiency in livestock husbandry.
- Improved labour efficiency.
- Feed budgeting provides some profitability.
- Planning and monitoring highlight many problems before they emerge.
- Pasture composition is improving with increased ground cover and more diversity.
- Better grazing management means a broader range of pasture species are now available options.

- More time available to look at other important aspects of business management previously not given adequate attention.
- Confidence of direction with a positive outlook.
- Keeping afloat financially whilst neighbours "fall by the wayside".

MISTAKES, PROBLEMS AND SOLUTIONS.

- Present farm infrastructure i.e. gateways, fences and handling facilities are designed for "flocks" of 1000 to 1500. Problems arising are increased chances of smothering and mismothering. The solution is to replan fences and transfer points along with the use of simple and cost effective electric fencing.
- Large mobs demand significant quantities of good quality water. Many existing dams and troughs are not capable of satisfying the requirements of large cell mobs. Again the solution lies in the replanning and designing a water system to suit.
- Pasture species well adapted to continuous grazing are not necessarily the best for rotational grazing.
- Lambing in large mobs has been perceived by many as a potential problem area but now lambing principles have been developed through the practical experience of other cell grazers. Planning the entire breeding and weaning programme for the property is essential.
- Contagious disease e.g. vibriosis and footrot are problems that are greatly increased in mobs running at high stock densities. Possible solutions could be a vaccination programme or improved natural immunity through better nutrition.

THE FUTURE.

- Redesign his Whole Farm Plan to accommodate time controlled grazing.
- Redesign his business plan and enterprise structure to maximise his return on investment.
- Reduce fertiliser inputs by improving the cycling of nutrients.
- Increase area of improved pasture species.
- Establish a simple but powerful monitoring system to fine tune production and identify problems before they emerge.
- Continue training and networking.
- Allocate more time to the marketing of his produce.

All in all it was a most interesting day. The farmer, unlike his neighbours, had regained his enthusiasm for farming, and this was made all the more possible in that he was "making money" even with low wool prices. If I was to sum up my day with him it would be to say that his success is down to only four ingredients, they are:

1. **Commitment** to a high level of management.
2. **Training** in the basic principles.
3. **Support/Retraining** to maintain commitment level.
4. Having **clear goals**.

Food for thought?

DOG DOSING DATES FOR 1999

Revised listing

*Wednesday 3rd February
Wednesday 17th March
Wednesday 28th April
Wednesday 9th June
Wednesday 21st July
Wednesday 1st September
Wednesday 13th October
Wednesday 24th November*

All dogs must be brought to the Veterinary section of the Department of Agriculture between the hours of 8am -12noon & 1pm -5pm.

PREMIUM FOR GROWERS AS MILLENNIUM DAWNS ON NZ

Source: Wool Record Weekly Market Report 3 - 8 January 1999

New Zealand wool marketers have been quick to take advantage of the country being the first in the world to see the dawn of the new millennium.

The New Zealand Wool Group say that when the sun rises on January 2000, it will first shine on New Zealand's isolated Chatham Islands, 800 kilometres east of the mainland in the South Pacific ocean.

Under contracts negotiated by Wools of New Zealand, wool from Chatham Islands sheep will be manufactured into "millennium style" carpets and rugs, and promoted under a special "First Light" brand. Deals have been struck with brand partner companies in the United States, Europe and possibly Japan.

The Wool Group say that the Chatham Islands project means farmers will receive premium prices (up to NZ\$ more than market rates) for crossbred wool. Brand partner companies will benefit from wools of New Zealand's marketing services package.

The project is being cited as an example of the commercial opportunities which have opened up for New Zealand wool growers since the New Zealand Wool Board were restructured last year. Under the operational name the New Zealand Wool Group, the board have stabilised specialist companies to run their marketing and wool production operations.

"The new structure has brought a more commercial focus to our business, and mean we can use industry experts to run each business", the board's chief executive, Mr Jeff Jackson, told the Wool Record.

Mr Jackson commented: "winning markets for New Zealand wool through new initiatives is the key to the survival, and long-term prosperity, of our industry. Innovation is vital, and we are putting more effort into developing new products and processes to stimulated demand".

FROM G & S SHEARING SUPPLIES OF GOOSE GREEN

Telephone/Fax: 32235

**Heiniger Combs, Pro Legent, Quaser and Charger.
Handpieces and Cutters.**

Most spares for Heiniger handpieces.

Warrie products now available:

Back aids; Back aid springs; Ellery pendulums; Cutter dispensers; Comb pouch (holds 36-40 combs); Comb brush - with scraper; Back warmer; Singlets (longtail fleecy) all sizes; Sweatshirt (longtail fleecy half sleeve) all sizes.

Wool Tops:

Check brush jacket (half zip) & Steel worker jacket (two button) - all sizes.

Answer to last month's Logic Puzzle

NAME	NAME	PRESENT	MISSING PIECE
A KERR	M MCLEOD	VIDEO	FUSE
S MILLER	C BELL	CALCULATOR	COVER
R THOMPSON	L WALLACE	NINTENDO	PLUG
A COE	O SUMMERS	COMPUTER	POWERLEAD
G LENNIE	D CARTRIDGE	ALARM	BATTERIES

DEREK'S PROBLEM WITH LOGIC

This hypothetical problem can only be solved through logical, methodical working. First read the statement carefully, then consider the clues. Next enter the information given in the chart provided on the next page, using a cross to show a definite 'no' and a tick to show a definite 'yes'. This narrows down the possibilities and might reveal some new information. Now re-read the clues and, using a process of elimination, you will find the rest of the puzzle can be solved. Remember that where you can put on a tick that this automatically discounts other possibilities and these should be crossed off.

LEGUME SEEDING

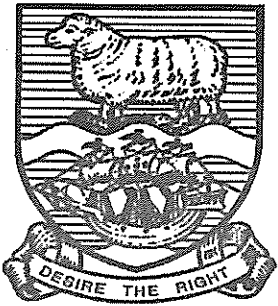
As I'm sure you know already legume seeds have to be planted properly if they are to survive. The best results being obtained if they are planted in early spring or early autumn to a depth of 1cm. They also need phosphate, a lime coating and inoculum. The farmers used various legitimate ways of getting the seed into the ground however, all of them have forgotten something important for legume growth as well as planting the seeds to the wrong depth. The farmers in the puzzle have had very poor growth as a consequence. As per usual none of the farmers made the same mistakes as another farmer or tried the same method for planting.

CLUES

- 1) The name of the farmer that trampled his seeds is later in the alphabet than the farmer that forgot the seeds.
- 2) The farmer that tine seeded forgot his lime. His letter immediately follows that of the farmer that tried to plant to a depth of 0cm
- 3) Farmer B planted to a depth of 5cm, his letter is before the farmer that triple disc drilled whose name immediately follows the farmer that seeded to a depth of 2.5cm. The farmer that planted to 2.5cm did not forget his phosphate.
- 4) The farmer that seeded in the height of summer, seeded to a depth of 3cm.
- 5) The farmer that seeded to a depth of 4cm, whose name immediately follows the farmers that planted to a depth of 3cm, rolled his seeds.

	DEPTH 0cm	DEPTH 2.5cm	DEPTH 3cm	DEPTH 4cm	DEPTH 5cm	TRIPLE DISC DRILLED	TINE SEEDED	TRAMPLED	ROLLED	HARROWED	INOCULUM	PHOSPHATE	HEIGHT OF SUMMER	SEEDS	LIME
FARMER A															
FARMER B															
FARMER C															
FARMER D															
FARMER E															
INOCULUM															
PHOSPHATE															
HEIGHT OF SUMMER															
SEEDS															
LIME															
TRIPLE DISC DRILLED															
TINE SEEDED															
TRAMPLED															
ROLLED															
HARROWED															

FARMER	PLANTING DEPTH	PLANTING METHOD	WHAT THEY FORGOT



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PLUS ALL THE REGULAR FEATURES AND MORE!

*The Wool Press is published by the Department of Agriculture. Editor: Mrs Charlene Rowland
Telephone: 27355 Fax: 27352 or e.mail: doa.fig@horizon.co.fk*

EDITORIAL

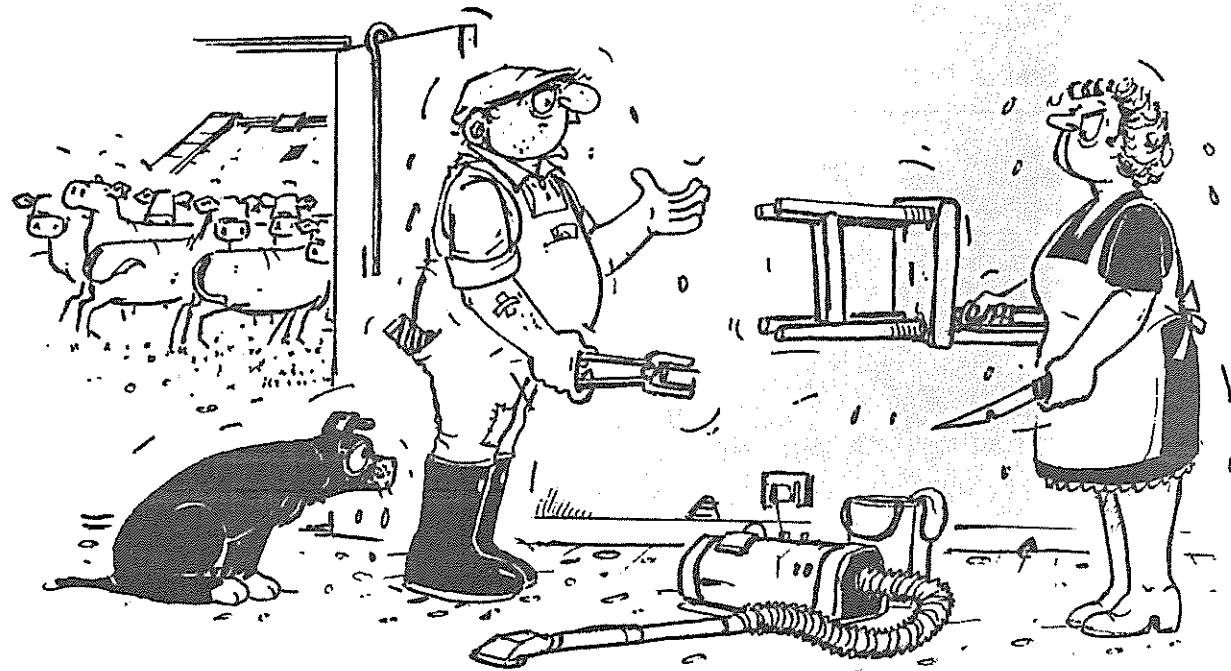
This month's Wool Press has loads of excellent articles from various staff from the Department of Agriculture. Robin and Sean at Goose Green have written articles with photographs on what they have been up to in the past year. Also a lengthy National Stud Flock Report by Doug has some encouraging figures and there are even some pointers from David on making you own compost.

The weather seems to have cooled down a bit. All I can say is I'm glad I am not a sheep about to have my coat cut off!!

Aidan will be returning to work after some personal business in the UK on 10th February. John Jaffray has made a big plunge and is leaving the department on the 12th. The staff wish John all the very best in his new career.

A farmer's daughter from Teal River, Georgina McKay will be joining us from the 8th February as a Field Assistant and she is hoping to enrol in an Agricultural College later on in the year.

Sports week is almost upon us again, good luck to all those jockey people and everyone else who I'm sure will be looking forward to a well earned rest after shearing.



Believe me, pet ... if we're not all tagged, documented and recorded, we probably won't qualify for the pension!

THIS MONTH'S CONTRIBUTORS

Robin Thompson	Beef Specialist	Gillian Phillips	Snr. Agricultural Assistant
Sean Miller	Sheep Nutritionist	Doug Cartridge	Wool Adviser
Robert Reid	Director of Agriculture	Derek Clelland	Laboratory Technician
David Parsons	Legume Agronomist		

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NATIONAL STUD FLOCK SALE & OPEN DAY

By Owen Summers

We intend to have a two day combined ram sale and open day at Saladero/Brenton Loch on 17th and 18th March. Byron Marine have kindly agreed to put on a return ferry crossing from Port Howard to Saladero, in addition we will also be prepared to subsidise FIGAS flights so that those flying will only pay the same as the ferry crossing. Where possible we would urge folk to make use of the ferry crossing. However the Islands and more outlying places e.g. Port Stephens area will obviously need to fly. Roughly the plan at present is to travel to Saladero/Goose Green and attend the open day on 17th transport to Stanley for overnight, some may then return home from Stanley on 18th whilst the remainder will attend the ram sale at Saladero and return on the ferry crossing to Port Howard later the same day. More details will be provided later.

To assist with planning we would be most grateful to hear from all those wishing to attend by Wednesday 3rd March, intending participants should contact either Gillian Phillips or Charlene Rowland at the Department of Agriculture stating whether they wish to use the ferry and also if they intend purchasing rams, as ferry crossings will be given priority to those taking sheep back.

**“BASIC PASTURE SCIENCE FOR FARMERS” OR
“HOW TO GET MORE OUT OF THE FARM”**

The Department of Agriculture is planning to give a series of courses on soil/plant/animal relationships aimed at giving farmers an understanding of how to improve their grazing systems and get the best from their farms.

The courses will be conducted over 2 days and the tentative dates are:

Fox Bay	Monday/Tuesday	4/5 April
Hill Cove	Wednesday/Thursday	6/7 April
Port Howard	Friday/Saturday	8/9 April

All interested parties are invited to attend (yes that means wives!!) and at this stage the Department would welcome expressions of interest so that all necessary arrangements can be made. Those who have attended the previous courses are invited to return for a refresher.

Please contact Charlene Rowland for more information.

NATIONAL STUD FLOCK REPORT - JANUARY 1999

By Doug Cartridge

Polwarth Flock : Saladero

With the excellent weather throughout the winter of 1998 all stock came into the spring in excellent condition with very low losses. All the dry sheep have been shorn with only the ewes to do in early February. Liveweights have in most cases been up on previous years while wool weights have been similar to last year with the exception of the shearling rams who clipped 1 kg more than last year. The rams for sale this year should be of a better quality and 5-10 kilograms heavier than last year. The feed availability is good and water is still available in most camps at Saladero which is pleasing considering the dry weather and increased stocking rate.

Ewes:

The ewes were rotationally grazed all winter on weekly shifts which proved successful. Very little supplement was fed to the main mob of ewes who put on weight from the start of mating until mid-September. The average weight gain over that period was 1.9 kg's per head. A controlled release drench capsule was administered to the ewes prior to lambing which seems to have eliminated the problems we had last year with high egg counts in the ewes and the lambs. The last samples taken at lamb marking (17th December) showed that both the ewes and lambs were virtually free of worms. Lambing went particularly well in the camps used for the first time this year with the majority of ewes having a good supply of milk.

The figures in the table below show the percentages achieved for all groups of sheep. The column labelled No. Dry includes any ewes that had lambs and lost them prior to tagging and deaths. There were a total of 12 ewes that died which included only 2 of the locally purchased ewes.

The percentage obtained from the shearling ewes was disappointing but in some ways expected due to them having to be aborted (this can affect their ability to conceive for a period of time) prior to mating after a Goose Green ram strayed into their paddock. We expect we would have achieved a similar percentage to last year (65%) if the ram has been left in longer, however lambing young sheep in December is too late.

	No.	Tagging %	No. Dry	Dry %	Twin %	Marking %
Farm A	48	95.8%	8	16.7%	12.5%	93.8%
Farm B	19	68.4%	6	31.6%	0.0%	63.2%
Farm C	41	92.7%	6	14.6%	7.3%	90.2%
Farm D	38	102.6%	3	7.9%	10.5%	102.6%
Farm E	40	85.0%	6	15.0%	0.0%	85.0%
Farm F	33	103.0%	2	6.1%	9.1%	93.9%
Pure-bred Mixed Aged	230	72.6%	72	31.3%	3.9%	70.0%
Total	449	84.4%	103	22.9%	5.6%	82.2%
Pure-bred Shearlings	32	9.4%	29	90.6%	0.0%	9.4%

The lambs are even with very few needing culling and appear at this stage to be considerably heavier than last year. The lambs out of the local ewes were considerably bigger at tagging time than those out of the pure-breds suggesting the local ewes were producing more milk. This should still show out at weaning time when the lambs are weighed.

Hoggets:

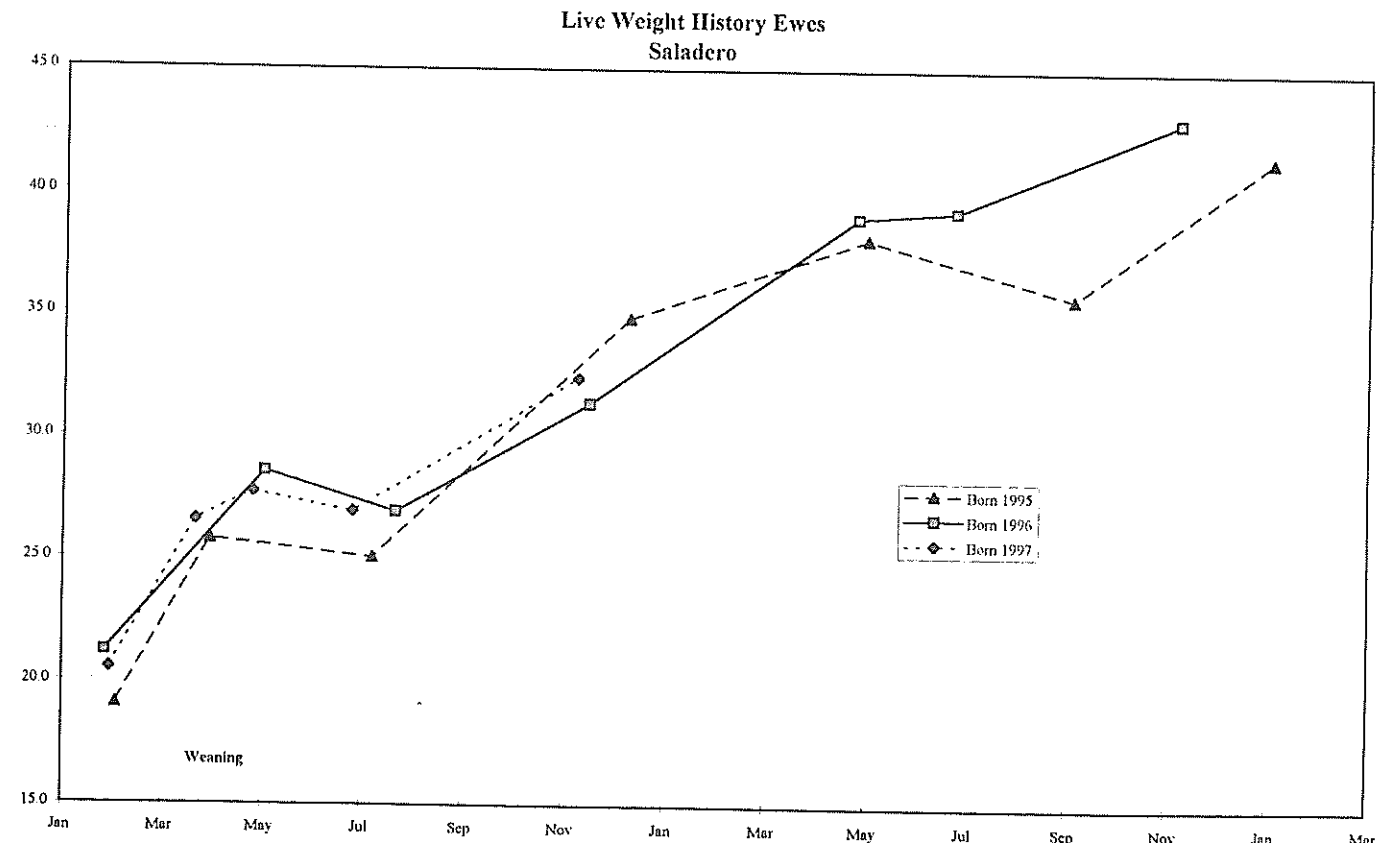
The ram hoggets were shorn at the start of October with the shearlings in an attempt to ultimately provide rams for sale in full wool next year. They will be shorn again at the end of February to bring them into line for this goal. Wool weights were down slightly on last year, however this may be due to early shearing and not having the affect of the increased wool weight resulting from the rapid rate of wool growth in the spring. Liveweight gain was particularly good through this last winter, reversing the trend of losing weight and in fact gaining 1 kg from May until the start of July. This we feel can be put down to a combination of mild winter, closer monitoring and actioning worm control, and eye locking.

The ewe hoggets were shorn in the middle of November, they again performed well through the winter on a far smaller camp that had been heavily grazed by cattle in the autumn. This didn't seem to hinder their growth with their liveweight being 0.5 kg heavier than the hoggets the year before. Greasy fleece weights were down 0.3 kg on last year but up 0.4 kg on the year before.

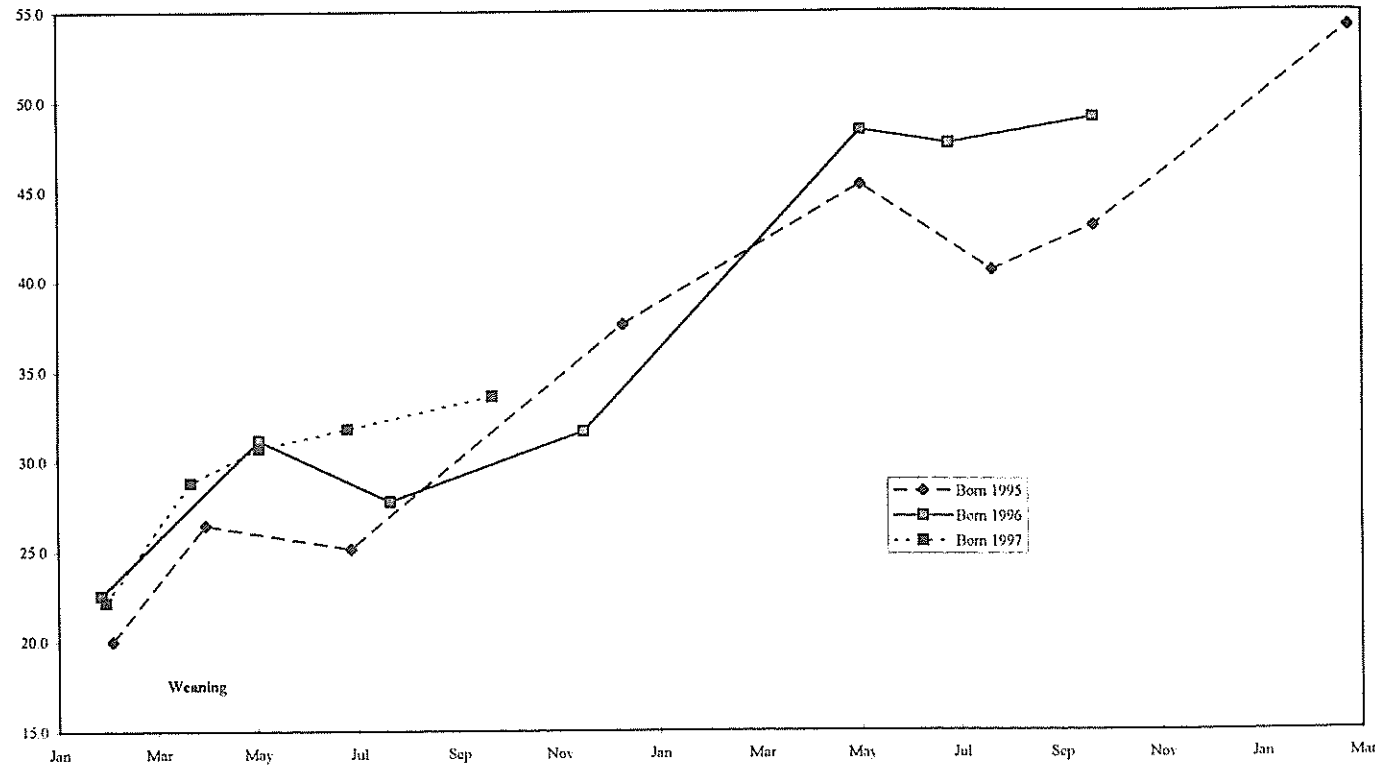
Liveweight graphs are shown for the hoggets and shearlings and wool growth rates were as below:

Greasy Wool Growth grams/day

	1998/99	1997/98
Ewe Hoggets	9.8	10.4
Ram Hoggets	10.3	13.0
Shearling Ewes	13.2	13.1
Shearling Rams	15.5	13.7



Live Weight History Rams
Saladero



Corriedale Flock - Goose Green

Everything has been running very smoothly at Goose Green thanks to the work of Sam Sinclair and the assistance from Tony McMullen and his staff and of course Colin Horton. Mating, lambing and tagging went without any major hitches and we look forward to having a closer look at the lambs at weaning time. We have screened 600 shearling ewes from the Goose Green flock for entry into the stud flock again this year. This will help to maintain numbers over the first few years of rigorous culling. The lambs were exceptionally well grown at tagging time and of fairly good quality. We culled everything which has a visible fault at that time which led to us tagging 311 ewe lambs and 358 ram lambs from the single mated flock and 197 ewe lambs and 205 ram lambs from the Arroyas flock (of which we know they are sired by a imported pure Corriedale, but we don't know their pedigree). This gives us a total of 508 ewe lambs and 563 ram lambs for selection. The lamb marking percentage achieved from the single mated flock (after some ewes were tossed out after mating etc.) was approximately 84% which is well above the projected 65% for the first year.

The rams were shorn at the end of October, clipping an average fleece weight of 7.3 kg (excluding belly) and with a range from 5.0 - 10.0 kg's. Their average clean fleece weight was 4.5 kilograms and average fibre diameter 28.5 micron. All rams picked up well after mating with only one missing from the Arroyas flock (presumed dead).

There will be no rams for sale this year but we expect to offer 50 top quality rams at next years sale.

**AGRICULTURAL MANAGEMENT COMMITTEE MEETING HELD
6 January 1999**

Present: Cllr. L. Clifton; R. Reid; O. Summers; H. Normand; R. Bonnie; R. Wagner and P. Robertson.

Owing to the special nature of the previous meeting, both the minutes of 25 September and 6 November were tabled for discussion.

From 25th September 1998:

- a) Argentine lime survey was deemed to be too expensive and development of local calcified seaweed was seen to be a better option.
- b) A suitable machine to process the calcified seaweed was now on order.
- c) Little interest from Falkland Island farmers in co-hosting a return visit by Chilean farmers.
- d) Doug Cartridge, Department of Agriculture and Ian Cox, Falkland Islands Development Corporation are preparing a report on the Bradford wool store.
- e) Port Harriet has been leased to Messrs. Newell and Evans.
- f) Department of Agriculture and Civil Aviation to look at joint fertiliser purchase.
- g) Animal Health Bill now in force.
- h) Farmers representation on Agricultural Management Committee should come from the Farmers Association thus lending strength to that organisation.

From 6th November 1998:

- a) The Animal (Scientific Procedures) Bill was approved by Legco. and will be implemented through the Environmental Committee.
- b) Falkland Islands Development Corporation reported that a start would be made on the abattoir in 1999.
- c) National Stud Flock Committee to be re-organised to include Corriedale and beef and to report to Agricultural Management Committee.
- d) Sale of hearts and livers from Stanley butchery would occur but would need veterinary inspection. The Attorney General to be asked to look at Legislation.
- e) Bob Reid reported on his vacation trip to Tasmania where he had the opportunity to discuss lots of issues relating to Falklands Agriculture. In particular wool marketing, pasture improvement, new rural industries and goose farming.

Next meeting to be held on Friday March 5, 1999.

ANSWER TO LAST MONTH'S LOGIC PUZZLE

FARMER	PLANTING DEPTH	PLANTING METHOD	WHAT THEY FORGOT
FARMER A	0cm	BROADCAST & ROLLED	SEEDS
FARMER B	5cm	DRILLED	LIME
FARMER C	2.5cm	BROADCAST AND TRAMPLED	INOCULUM
FARMER D	3cm	DRILLED & ROLLED	HEIGHT OF SUMMER
FARMER E	4cm	BROADCAST	PHOSPHATE

HERBICIDE EXPERIMENTS

By Robin Thompson

Visitors to last year's open day at Brenton Loch had the opportunity to visit one of the herbicide trial sites we established to determine if such materials have a role to play in pasture development. This article will provide an update of progress and examine some possible future roles for herbicides in Falklands agriculture.

What we did

Since whitegrass is the predominant 'weed' we initially concentrated our efforts on this plant. Herbicides were applied at a number of different rates either through a boom spray or wick wiper. In addition to applying the herbicides to the plants in their natural camp condition we also applied them to the regrowth following flail mowing and burning.

Similarly herbicides have been applied to fern, diddle dee and christmas bush growing in their natural camp state.

What we found

Glyphosate, (sold as Roundup and other trade names) can give good control of whitegrass but the rate required depends upon the ability to apply the chemical to green leaf. Consequently, lower application rates were more successful following burning and flail mowing because both these activities removed dead leaves causing the plant to produce a new crop of green leaves to which the chemical could be applied.

Metsulfuron Methyl, (sold as Brushoff and other trade names) applied in conjunction with Glyphosate gave good control of fern.

Currently we have not found a chemical able to control diddle dee but this is not of a great concern because this species can be very effectively controlled by mechanical means such as slashing or mowing.

Recent experiments with christmas bush suggests that Glyphosate is effective against it giving good, quick control.

HERBICIDES AND PASTURE IMPROVEMENT

Pasture improvement will essentially be undertaken in the following three situations.

1. Bog whitegrass

These areas are characterised by prolific bogs or areas raised up above the natural soil surface. Such bogs are essentially 'dry islands' being composed mainly of fibrous root and plant material with very little water holding ability hence any seed planted there is unlikely to survive. I suggest such bogs will need to be mechanically removed either by slashing or rotovating prior to attempting pasture establishment. Herbicides probably have little to contribute in this situation.

2. Lax whitegrass

Such areas tend to have minimal 'dry islands' hence a readily available seed bed following removal of the native vegetation. In this situation I suggest burning in early spring followed by herbicide application to the green regrowth leaves and then direct drilling. If too much trash remains following the herbicide application a second burning may be contemplated.

3. Old reseeds

Many of the old reseeds have become dominated by christmas bush and to a lesser extent diddle dee. Herbicides could be used to control the christmas bush followed by direct drilling new pasture species. Such a technique would also be applicable to natural camp areas dominated by diddle dee and christmas bush. If the diddle dee component is high slashing could be used as the initial treatment followed by herbicide application. Slashing or mowing is ineffective to control christmas bush because of its very prostrate growth form.

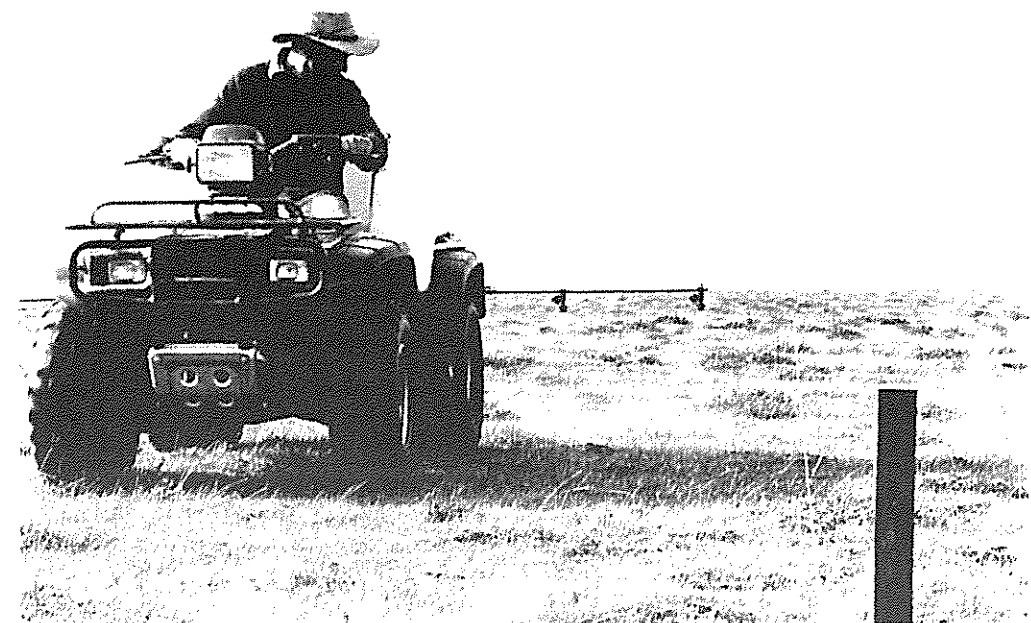
Other considerations

Cost will always be one of the prime motivators determining the use of one technique above another. It is not only cost in terms of cash that must be considered but also that in terms of time. Adoption of a more costly alternative may in the end be cheaper if it allows a larger area to be improved at any one time. Internationally, Glyphosate is a very cheap chemical primarily because it is off patent and therefore able to be manufactured by a number of companies who in turn compete for market share by cutting prices. I would be surprised if this chemical cannot be retailed here for a lot less than £10 per litre.

Another consideration is our clean and green image. It just so happens that Glyphosate is probably the safest agricultural chemical yet to be developed. One of its characteristics is bio-degradability when it comes into contact with soil or organic matter so there is no residual activity in the environment.



Calibrating the seed drill prior to use.



Establishing herbicide trial.

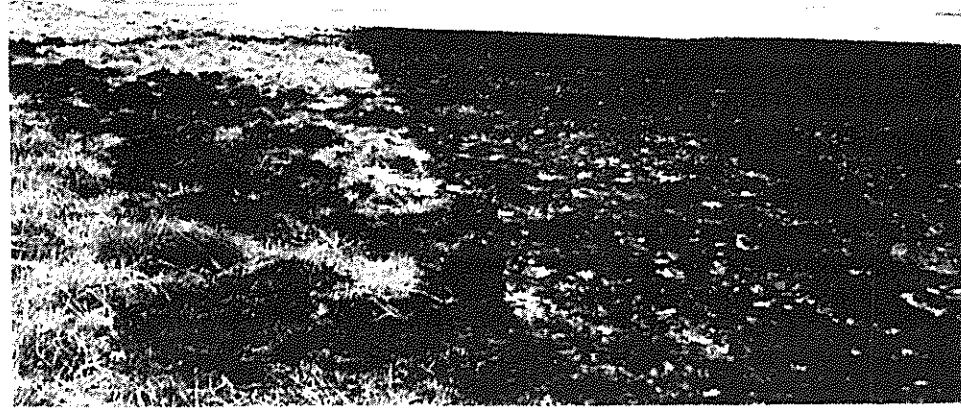
BULLS FROM NATIONAL BEEF HERD

By Robin Thompson

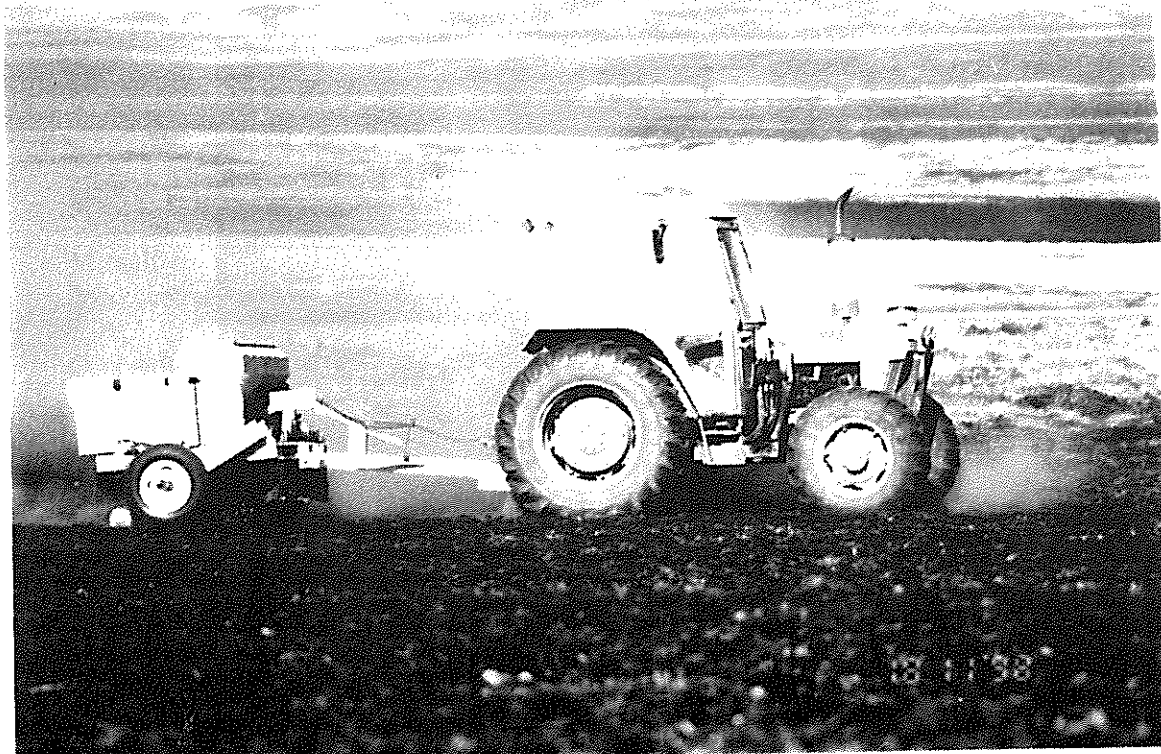
Bulls born in the National Beef Herd this year will be castrated in mid March. We only intend keeping sufficient entire bull calves to meet the requirements of the National Herd and those of farmers who make a specific request. I therefore need to receive such requests by the end of the first week of March.

All bulls available this year will be half bred Angus and should be of sufficient size for limited use by this time next year.

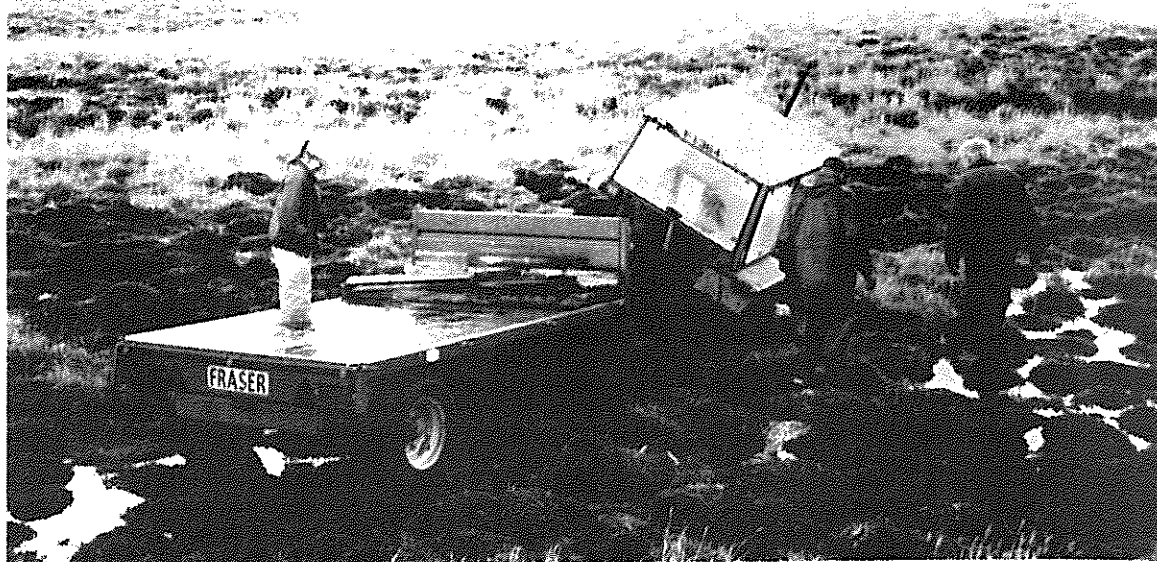
Currently managers seem to keep bulls and rams for as long as the animals can walk around. Such a policy limits genetic progress and in the case of beef cattle increases the time it will take to move our herd away from its current dairy breed like characteristics to one with more beef like characteristics.



Post rotavation and burning prior to drilling at Brenton Loch.



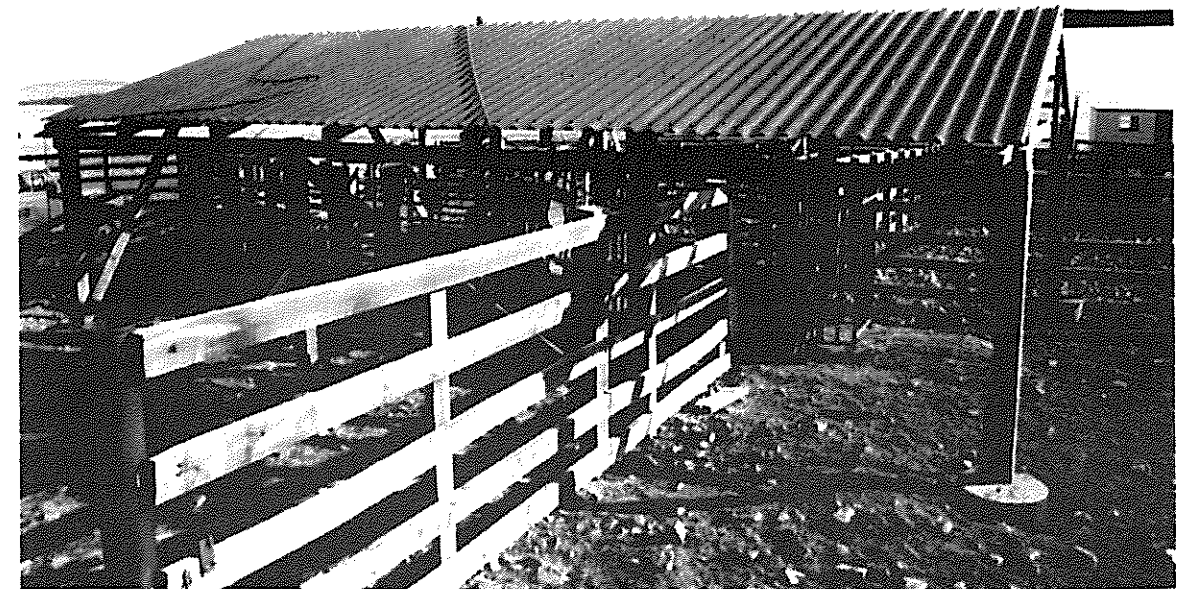
Direct drilling pasture at Brenton Loch.



Just another day at the office.



National Beef Herd cows pre-calving.



Roofing the crush and race at the cattle yards.

WHAT'S HAPPENING IN THE WETHER TRIAL?

By Sean Miller

The wethers were shorn at Goose Green last month and we had a chance to take the first set of measurements since they have all been together in the one camp.

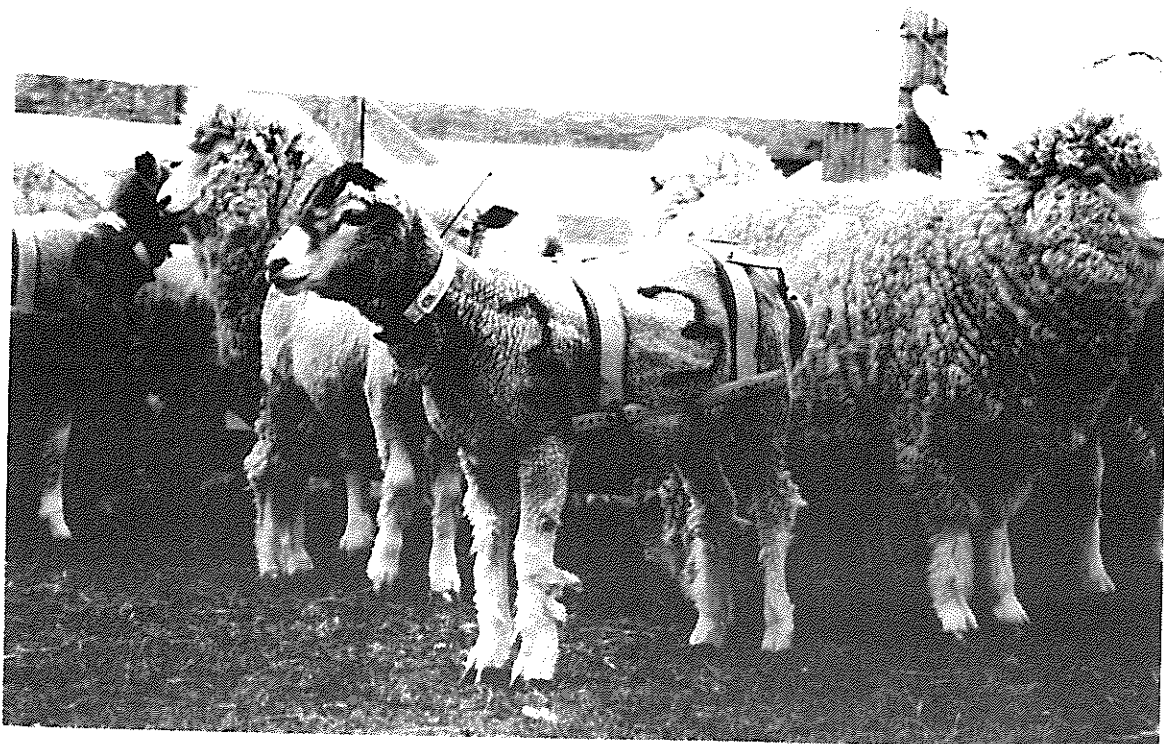
We weighed and conditioned scored the sheep when they arrived at Goose Green from their different properties. Because we couldn't really shear all of the sheep when they arrived in late winter, and since they all had different shearing dates last year, had been feeding in different paddocks and thus on different feed, we had to use a different method to measure wool growth.

When the sheep arrived at Goose Green we clipped a small square patch of wool from their mid side. This patch, about 10 cm by 10 cm in size, was clipped down to skin level and the sheep were then placed in Ceritos camp.

We weighed and scored the sheep again when they came in for shearing in January. We also harvested the wool that had grown on the clipped patch.

There are still a small number of stragglers to come in, and although we haven't completed the analyses of the wool samples yet (hope to have that finished by next month), following are the bodyweight and condition scores so far.

Farm	Weight at arrival	Weight at shearing	Change	Condition at arrival	Condition at shearing	Change
Beaver Island	52 kg	50 kg	-2 kg	2.5	2.4	-0.1
Coast Ridge	37	42	+5	2.1	2.5	+0.4
Main Point	29	39	+10	2.0	2.6	+0.6
Port Stephens	38	42	+4	2.1	2.5	+0.4
Goose Green	37	42	+5	2.1	2.4	+0.3
Smylies	32	40	+8	2.2	2.3	+0.1
Horseshoe Bay	34	40	+6	2.3	2.7	+0.4
Wreck Point	33	41	+8	2.3	2.7	+0.4



Finding out how and where sheep graze, what they eat and how we can feed them better.

A few comments so far;

- Despite a wide range in weights when the sheep arrived at Goose Green in August and September, nearly all groups of sheep were of equal body weight by shearing. The exception of course are the sheep from Beaver, which are exceptionally well grown and have undoubtedly reached maturity at an earlier stage of growth.
- Both body condition and bodyweight have increased since arriving; some have had outstanding gains.
- The Cormo wethers from Beaver have maintained their bodyweight and condition well. The slight loss in weight and condition may reflect a drop in diet quality during the period spent at Goose Green, but it is more likely that the sheep are more mature than the other groups and are following the growth pattern of 4 or 5 year old sheep.

Obviously the wool results are the ones that equate to pounds in the pocket. As soon as we have the samples cleaned and measured, we'll have something in the Wool Press for you. In the meantime, if you have any comments on what you see here drop us a line.

More next month.

OVERSEAS TRAINING IN TASMANIA

by Gillian Phillips

In February 1997 I left the Falklands to undertake an agricultural course in Tasmania. I lived and studied on the north-west coast of Tasmania in a town called Burnie. I attended a TAFE college (Training and Further Education) which had approximately 500 students.

My first year was a Certificate IV in Agriculture which I completed at the end of November 1997. This first year was mainly introductory modules and had a fair amount of cropping and some farm business associated modules. In mid October we finished in-class lectures and it was compulsory to do 240 hours practical work experience on a farm. I was extremely lucky to get a job at a property of the name "Landfall". This property is owned and run by Gerald Archer and his family. It is situated on the north-coast and runs 1500 head of stud Angus beef, 13,000 Merinos and 500 stud Suffolks. I was involved with calving, cattle AI, cattle embryo transplanting, lamb marking, shearing, making silage and many other farm activities. I completed my 240 hours within the first 3½ weeks but stayed for 6 weeks. I found this practical experience very beneficial as most of the course was theoretical so it was good to put some theory to practice.

I returned back to Tasmania in February '98 after 2 months back home for Christmas to do the second year which resulted in a Diploma in Agriculture (Resource Management). This year was more in depth and covered a lot more animal breeding, pastures and soil related modules. The most hours spent on any one subject was soils which totalled 120 hours. We were assessed by assignments for all the modules. The main assignment for completion of the first year was an enterprise project and for the second year was a Whole Farm Plan. I completed all my assignments by the 31st November '98 and was presented my certificate before leaving on the 7th December '98 for my return home to return back to work at the Department of Agriculture.

THE SECRET LIFE OF A COMPOST HEAP

By David Parsons

Composting is really just a way of speeding up the recycling processes which would take place as plants and animals die. If a plant growing happily in a garden takes up all the nutrients it needs to survive, then when the plant dies, it still contains a nice balance of all the necessary nutrients. It stands to reason that instead of just throwing out our kitchen and garden wastes we can use them to fertilise our gardens.

Making compost is easy, because micro-organisms do all the work for us in breaking the waste down. It seems to me that (besides using hens and worms) there are basically three ways of composting:

1. The good ol' "Bury it in a Hole" technique

Food scraps, lawn cuttings etc. can be buried in shallow holes in the garden. Over time, earthworms, bacteria and fungi will break down the scraps to form "humus", which enriches and improves the soil. The burying should be deep enough to keep away flies, and there may be other problems with rats and dogs wanting a piece of the action. The other two methods may be preferable.

2. "No Hurry" composting

This can be done either in specially made plastic bins, or just in an enclosed heap. As required, kitchen scraps, lawn clippings, weeds, and autumn leaves (being optimistic) can all be thrown in the pile. Anything that has been alive can be added, including paper, hair and wool scraps. Here are a few extra tips:

- Really dry materials, such as newspaper should be moistened before going in.
- The level of the heap will slowly fall as everything breaks down. If you need a bit of compost, get some from the bottom of the heap.
- This sort of composting won't kill weed seeds, so try to remove weeds before they go to seed.
- Earthworms grow well in this sort of cool compost heap - you may want to add some from elsewhere in the garden.

3. Compost in a Hurry

Here are some tips for making compost quickly, in maybe three to four weeks.

Make at least one cubic metre of compost.

It is important, especially in cool places, that the heap is big enough, so that the microbes can keep the heap warm. If the compost heap is too small, it won't be able to reach the temperatures needed for a quick compost. Unfortunately, this sort of compost heap gets too hot for earthworms (60 to 70°C) but the advantage is that it kills bacteria and fungi that can damage your plants.

Shred materials that are too big.

The smaller the bits and pieces are, the quicker the bacteria can break it down.

Get the balance of "Food" right.

Microbes can be fussy. If you don't give them the right balance of food, they won't function very well. To be a bit technical, they need a balance of carbon (C) and nitrogen (N), so that they can keep themselves going, and reproduce. All organic materials have

carbon, and so supplying enough nitrogen to satisfy the microbes is the key to success. Below is a guide to the carbon and nitrogen levels of garden materials:

- High carbon, low nitrogen - sawdust, straw, dead leaves, paper
- Moderate nitrogen - lawn clippings, weeds, food scraps, manures
- High nitrogen - "blood and bone", feathers/hair, manure of grain-fed animals

There are some "recipes" for getting the balance right, but the important thing is to be aware of what you are putting in. If your heap is mainly composed of straw and leaves, then obviously you need something with some nitrogen in, such as food scraps. One trick to remember is that if you need some extra nitrogen to speed it up a bit, you can always add a bit of fertiliser (50g per bucket of straw/leaves is a good guide)

Add a handful of lime or dolomite.

This raises the pH of the compost heap, and helps the microbes to work faster.

Moisten dry materials with water.

Once you have mixed everything together, grab a handful of the mixture and squeeze it. If you can't squeeze water from it, it is too dry, and you should add some water. If the compost heap is too dry, only fungi will be able to break down the materials, and the process will be very slow. Covering the heap also helps keep it moist.

Do I need a "Compost Activator?"

Hundreds of different micro-organisms, including bacteria, branching bacteria, and fungi, are involved in the decomposition of organic matter. They are everywhere, and are just waiting around for the right situation to grow (i.e. your compost heap). Almost always, there will be enough microbes present for decomposition to start quickly. Special "Compost Activators" should not be necessary, and have on numerous occasions shown to be of no benefit. If you really want to make sure you are getting the right "bugs" then throw in a few handfuls of your last batch of compost.

Let your compost heap breathe.

Some microbes need oxygen, and some don't. However the ones that use oxygen can break down the dead plant material faster than those that don't. You can tell what is going on simply from the smell. The smell of compost with oxygen is earthy, whereas the smell of compost without oxygen is like a pigsty. So if you want fast, sweet-smelling compost, you have to let the heap breathe. Here's how to do that:

- Don't compress the heap by walking on it.
- Turn the heap every few days, and let the materials settle back loosely.
- Don't add too much water - only what can be squeezed out of the hand.

How does the compost heap change?

Within a couple of days, if everything is right, you will notice the heap starting to get hot, and in cold weather you may see steam rising from it. As time passes the materials will darken and shrink to one third of the original size, taking on a pleasant earthy smell. You now have your "nutritious" compost and it's time to start over again.

Reference - "Gardening Down-Under", Kevin Handreck

RECIPES

MARS BAR CAKE

3 ozs butter or margarine
9 ozs light brown sugar
3 ozs plain chocolate
7 fluid ozs milk
2 eggs size 3
6 ozs plain flour
¾ teaspoon bicarb
2 x 2½ mars bars - sliced
6 fluid ozs double cream whipped
1 tablespoon icing sugar

Preheat oven to 375°F, 190°C or gas mark 5. Grease and baseline 2 7 inch sandwich tins. Put the fat, sugar and chocolate into a saucepan and heat gently until all is melted, remove from the heat and allow to cool slightly. Beat in the milk, egg, flour and bicarb and divide the mixture between the two tins and cook for 25-30 minutes until risen and springy to touch. Remove cakes and peel off lining paper and put onto a cooling tray upside down and arrange slices of mars bar over one of the cakes whilst still hot, to melt the mars bars. Allow to cool completely then sandwich the cakes together with cream and dust the top with icing sugar before serving. This recipe can also be frozen (without the cream).

STEAK AND ONION PARCELS

1½lb lean braising steak,
(trimmed of fat and gristle and cut into four equal sized pieces)
4 tablespoons of vegetable oil
2 large onions sliced
4 teaspoons horseradish sauce
Salt and freshly ground pepper

Heat the oven to 375°F, 170°C or gas mark 3. Heat oil in a frying pan, cook onions until soft and lightly coloured for about 5 minutes. Increase the heat and add the steak to the pan and fry quickly turning to seal and brown. Cut out 4 pieces of foil to about 12 inches by 8 inches, put one piece of steak on each piece, spread the steak with horseradish sauce and arrange the onions on the top. Season well. Fold the foil around the steaks sealing the ends well to form parcels. Put on a baking tray and cook for 1½ hours. Delicious served with baked potatoes and green beans.

APOLOGIES

I must apologise to Sally Blake and Lyda Luxton for the incorrect spelling of their names in last month's *Wool Press* and to Nigel Knight for 'Guess the weight of a ewe fleece' which should have read 5.1 kgs and not 1.5 kgs.

Editor of *Wool Press* - *Charlene*

WANTED TO BUY

Front propshaft and universal joints
for ploughmaster 5000

If anyone can help - please contact
Ben or Violet at Elephant Beach
Telephone: 41020 in the evenings

ANOTHER TRUE STORY

By Bob Reid

A bloke was in court in the backblocks of Queensland charged with cattle duffing - taking somebody else's unbranded cattle and whacking his own brand on them.

The jury consisted of local farmers who'd all done a bit of duffing in their time, and the accused was a drinking mate from the Linga-Longa Pub. So when the judge sent them off to consider their verdict, their deliberation took about five minutes flat.

The Clerk of the Court said, "Have you reached a verdict?"

"Yeah," said the foreman of the Jury.

"Do you find the defendant, guilty or not guilty?"

"We reckon he's not guilty, but he's got to give the cattle back".

The Judge was infuriated and started banging away with his gavel, "You cannot reach a verdict with such conditions attached! The man is either guilty or not guilty, now go away and reconsider your verdict".

The Jury shuffled grumpily out of the court, only to return seconds later. "Well", said the Judge. "How do you find".

"We find him not guilty, and he can keep the bloody cattle!"

FOR SALE AT

P + D WHITNEY'S

Mt. Kent Farm. Telephone 31003

Oats	20 kilos @ £6.86
Horse/Pony Cubes	25 kilos @ £8.64
Wheat	25 kilos @ £8.05
Layers Mash	25 kilos @ £8.64
Layers Pellets	25 kilos @ £8.71
Mixed Corn	25 kilos @ £8.54
Oyster Shell	25 kilos @ £8.30
Flint Grit	25 kilos @ £6.84
Pig Cubes	25 kilos @ £8.85
Lamb Milk	25 kilos @ £44.50

BBC 'LANDWARD'

By Derek Clelland

As some of you will no doubt be aware a BBC crew was in the Islands recently to film for an agricultural programme called 'Landward'. They were down to find out what kinds of agriculture we have in the Falklands and the things that affect this agriculture. The crew was from BBC Scotland based in Aberdeen, the same place that the 'Beechgrove Garden' comes from.

Naturally, due to the time of year, they went to a few different farms to see the shearing and the general handling of sheep. I think that they must have spent half of their time either looking for sheep or filming them. They even went to the extent of filming the Governor's sheep. That might sound easy enough but when the cameraman wants them to be in a specific place so that the flag and Government House are situated in the centre of the shot it starts getting harder, especially when the cameraman doesn't want his camera getting wet!

However this was an agricultural show, not just one about sheep. Horses were another favourite and when they spotted horses stabled in the gardens of Stanley it was hard to tear them away from their filming. Owen did manage to tear them away from this but that was to watch him leading three of his horses from one garden to another and getting their interview with him with his horses in the background!

Other items of agricultural interest that were filmed were pig farming on Pebble Island, shelter belts and re-seeds at Estancia and the National beef herd.

However they didn't only film on agricultural subjects, they also filmed on subjects related to agriculture such as interviews with the Governor and John Barton, talking about the fishing industry and tourism, which we have to admit help either paying some of the costs of running some farms or come through as grants.

The film crew enjoyed their time here and would wish to thank everyone that helped them in the making of the programme. The programme was aired the Sunday before Christmas on BBC Scotland but it is doubtful that BFBS will show it, therefore some videos of the programme will be sent out and these will be distributed by the Department of Agriculture so that we can all enjoy this production. In the meantime I have an advance copy and if anyone would like a loan of this could you please contact me at the Department of Agriculture. I think that it would be an interesting half hour that you would spend watching it, seeing how Falklands agriculture and the Falklands in general are regarded by another country.

Please call Derek Clelland at the Department of Agriculture if you would like to see the video.

A THREAD REPAIR TOOL

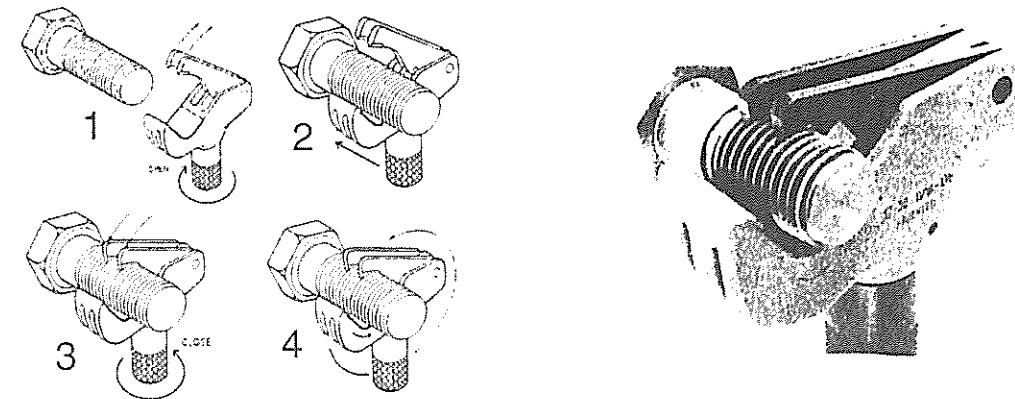
Source: *Practical Farm Ideas Autumn 1998*

Restoring damaged bolt threads so they work again is a simple job with this all in one cutting tool. You fit the tool around the thread of the damaged bolt and tighten to two cutters in the tread. The cutters move sideways to accommodate varied pitches. Turning the tool the cutters are guided by the existing threads, and damaged areas are removed. The cutters are hardened to 58 Rockwell C and are replaceable.

Model Nes 1A repairs threads in the range 4 - 18mm, model Nes 1 does 6 - 19mm and Nes 2 does 17 - 38mm. Nes 2 needs special blades if repairing threads finer than 1.5mm. Retail prices are £34 for Nes 1 and £46 for Nes 2. A pack containing both cutters and spare blades is £86.

The Nes tool should save a lot of time spent looking for the right die, and also obtaining them if a complete set is not in the workshop. Forcing damaged bolts into castings can soon damage the thread, reducing the strength of the fastening. With the tool at hand you can cheer up threads as a matter of routine, without adding greatly to the time taken to do the repair.

If you would like more information - please contact me (Charlene) at the Department of Agriculture.



VACANCY - AGRICULTURE DEPARTMENT

The Department of Agriculture has a vacancy for a **Farm Supervisor/Stockman** at Saladero Brenton Loch as from end of April 1999.

The successful applicant will be responsible for the day to day running of the property under the direction of the Deputy Director of Agriculture. Duties will include general husbandry of both sheep and cattle, including procedures necessary to maintain healthy, productive animals. Carry out repairs and maintenance of fencing buildings and equipment. Assist with pasture development and research and development projects at Saladero.

A high level of self motivation and ability to work productively without direct supervision is essential for this position. The successful applicant should have at least five years work experience in general farm duties.

Salary will be £10,584 in Grade G. A partly furnished modern three bedroom house located at Saladero plus generator fuel and mutton sheep are provided, however, a charge for these will be made.

Interested person should contact Mr Owen Summers, on telephone 27355 during normal working hours.

Application forms and job description are available from the
Human Resources Department, Secretariat and completed forms should be returned by
Monday 8th February 1999.

MORE OF DEREK'S PROBLEM WITH LOGIC

This hypothetical problem can only be solved through logical, methodical working. First read the statement carefully, then consider the clues. Next enter the information given in the chart provided on the next page, using a cross to show a definite 'no' and a tick to show a definite 'yes'. This narrows down the possibilities and might reveal some new information. Now re-read the clues and, using a process of elimination, you will find the rest of the puzzle can be solved. Remember that where you can put on a tick that this automatically discounts other possibilities and these should be crossed off.

FALKLAND SHEARERS

The farm manager on one farm in the Falklands has decided that his shearers need to appreciate the work done by other people during shearing. He has decided that they won't be shearing for the next fortnight, they will be experiencing jobs normally done by rousies instead. The manager has assigned the rousies one shearer each and told them to teach the shearers how to do some of the various other jobs that have to be done during the shearing time. Can you figure out which shearer has been assigned to which rousie and what he will be taught each week? As usual no duplication will occur in any of the categories.

CLUES

- 1) Lee is working as a classer this week. Lisa is not the one that is training him but she will be training one of the shearers to sweep the floor with a paddle next week.
- 2) John is being trained by Emma.
- 3) Paul will be trained to crutch next week. He will not learn this from Heidi.
- 4) Steven is not the one that is being taught all the general jobs handled by rousies.
- 5) One shearer will be learning to throw the fleece next week, he is working as a penner-up this week.
- 6) Shula is teaching one of the shearers to be a table hand this week. She is not the one scheduled to teach a shearer to skirt stain next week. She is teaching the shearer whose first name starts with the same letter as her own.
- 7) Ingrid is teaching one of the shearers how to work the new, very expensive wool press this week, much to the horror of the farm manager.

		FIRST WEEK					SECOND WEEK								
	INGRID	LISA	EMMA	SHULA	HEIDI	GENERAL ROUSIE	CLASSER	TABLE HAND	PRESSER	PENNER-UP	CRUTCH	THROW FLEECE	SWEEPING	SKIRT NECK	SKIRT STAIN
LEE															
PAUL															
STEVEN															
CRITTA															
JOHN															
CRUTCH															
THROW FLEECE															
SWEEPING															
SKIRT NECK															
SKIRT STAIN															
GENERAL ROUSIE															
CLASSER															
TABLE HAND															
PRESSER															
PENNER-UP															

SHEARER	ROUSIE	FIRST WEEK	SECOND WEEK



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PLUS ALL THE REGULAR FEATURES AND MORE!

*The Wool Press is published by the Department of Agriculture. Editor: Mrs Charlene Rowland
Telephone: 27355 Fax: 27352 or e.mail: doa.fig@horizon.co.fk*

EDITORIAL

We all know the Millennium is almost here and there is much talk around town about which of the many and varied projects should carry the 'MILLENNIUM' tag and how we should celebrate the actual 'turn of the millennium'. How are you intending to celebrate? Are you planning something on your farm? I would like to hear about it if you want to share it. Talking about celebrations, I assume and hope that everyone had a good time at the sports.

We have an avid crossword fan in the office - Glynis - and she is going to create some crosswords for some future Wool Presses. I know some of you have had withdrawal symptoms, but I'm just no good at making them.

Once again, can I ask any farmers that are intending to go overseas this year to let me know at your earliest opportunity. This gives me the chance to send you a livestock ordinance form for completion and return before you leave. In previous years we always seem to miss someone and this stops the completion and printing of the Statistics.

We are experiencing some difficulties in supplying a centre colour page to the Wool Press because the printers have got their main machine down. Hopefully next month's will be colour again. If you have anything for the Wool Press whether it be what you are doing on the Incentive Scheme or just promoting your farm with a few photographs, I would be delighted to have them to print. Remember the Wool Press goes all over the world and it would be an opportunity to promote the farming community and spirit of the Falkland Islands.

The Open Day and Ram Sale is generating a lot of interest. We still have places for the Tamar trip if you are interested. Transport to Stanley will be no problem and of course back the next day. See you there!



"Nigel or Hank? He is still looking for the Lost Cowboys"

Cartoonist: Marie Summers

THIS MONTH'S CONTRIBUTORS

Robin Thompson	Beef Specialist	Sean Miller	Sheep Nutritionist
Doug Cartridge	Wool Adviser	Charlene Rowland	Editor
David Broughton	Queen's University	Aidan Kerr	Snr. Scientist
Jim McAdam	Queen's University		

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STAPLE STRENGTH AND CLEAN COLOUR OF FALKLAND ISLANDS WOOL.

AN EXERCISE AIMED AT MONITORING THESE CHARACTERISTICS IN FALKLANDS WOOL.

By Doug Cartridge

Introduction

Falkland Islands sheep produce good quality mid-micron (mean 28 μ) wool. Staple strength and clean colour are both important characteristics which determine the processing performance of the raw wool and the processed value of the tops. To date we have very little information on these characteristics with relation to Falkland Islands wool. Staple strength and Clean colour are not measured routinely on sale lots though individual 'side samples' have been tested in the past. These results indicate that the wool is of generally good colour but does contain a degree of tenderness. The purpose of this trial is to determine the levels of staple strength and colour of wool produced from differing sheep breeds farmed on different locations around the Islands and to monitor any changes in the future.

Staple Strength (SS)

Staple Strength is one of the traits determining fibre length in tops (Hauteur). Seasonal wool production, and the factors involved, appear to be largely responsible for variation in SS, which may be under some genetic control. It is measured in Newton's/Kilotex (N/Ktex). Newtons are a measure of force, with 1 Newton equal to 102g. Staples come in various shapes and sizes, and their mass must be standardised. One Ktex is defined as 1g of clean, dry wool per metre. That is, if we had a piece of wool 1 metre long which weighed 1 g, then that would equate to 1 Ktex. Similarly, if the 1 metre piece of wool weighed 10g, then it would be 10 Ktex. Ktex for wool is estimated from the weight and length of the staple. An average staple might be about 0.1m long and weigh 0.3g and would therefore be 3 Ktex. If it's staple strength was 30 N/Ktex, this staple should break with about 9.2 kg suspended from it.

Possible management strategies to improve SS include choice of shearing date to coincide with the position of break, manipulation of feeding regimes to better match feed supply with animal requirements, and possibly breeding for lower seasonality of wool production. In Tasmania, improvements of about 10 N/Ktex have been achieved through better feeding management, or by changing shearing time.

Grades given for staple strength with their corresponding values of N/Ktex are as follows;

<u>Grade</u>	<u>N/Ktex</u>
Very Sound	above 40
Sound	30 to 40
Part tender	25 to 30
Tender	18 to 25
Very tender	less than 18

During 1996/97 side-samples were staple strength tested from 240 well fed Corriedale X Cormo wethers run at the Department's Clements corner grazing trial. The mean SS was 27 N/Ktex with 62% of samples tested being graded as part tender, tender or very tender (i.e. below 30 N/Ktex). This compares with the Australian 1994/95 wool clip having only 22% part tender or worse and 1.5% for the same season in New Zealand.

The Australian and New Zealand markets have recorded discounts for staple strength below 30N/Ktex of between 5 and 10% on the clean price. This equates to a discount of 10 to 20 pence per kilogram for these tender Falkland Islands wools given the current market level. If this level of 62% tender wool's is common throughout the Islands the annual cost to the economy could be as much as £150,000 per annum.

Clean Colour

Clean wool colour varies from near white, through shades of cream to yellow and brown. Greasy wool appraised as containing unscourable colour will often scour to an acceptable colour. Discounts of 3 to 5% are applied to wools

to wools appraised as containing unscourable colour in Australia and New Zealand. Clean colour is measured routinely in these countries using a Tristimulus Colorimeter.

The visible light spectrum is made up of seven colours - red, orange, yellow, green, blue, indigo and violet. So, for example, if an object absorbs red, orange, green, blue, indigo and violet it will appear to be yellow. However, if light which shines on the object is not daylight but contains a predominance of one of the spectrum, then the true colour of the object will be distorted. For this reason colour is measured using a standard light source which is specified by an international standard and referred to as CIE illuminant C. The CIE colour measurement system has been designed to simulate the colours as perceived by the human eye and therefore, the results produced are equivalent to what we see. By using filters it is possible to measure the amount of light reflected from an object over all sections of the spectrum. For these purposes the spectrum is divided into three zones made up of the red/orange area (X), the green/yellow area (Y) and the blue/indigo/violet area (Z). These three measurements are called the Tristimulus Values and are measured by the Colorimeter.

The purpose of colour measurement is principally to assist the dyer when the wool is being processed. Dyeing is an additive process and it is therefore impossible to dye the wool lighter than its original colour. All dyestuffs have tristimulus values, so to dye a batch of wool a yellow colour with values of X=60, Y=62 and Z=40 the wool must have tristimulus values which are numerically higher than this. Y is regarded as the level of brightness and the value of Y-Z is an indicator of yellowness. If Y is numerically high the wool will be bright but if it is low the wool will appear dingy. If the value of Y-Z is numerically low the wool will be white but if it is high it will be yellow.

The tristimulus readings range roughly from 0 to 100 and thus a black object would have readings of: X=0, Y=0 and Z=0. A typical example of good colour values is X=63.0, Y=64.0 and Z=62.5, this would have a Y-Z value of 1.5 and would appear white and bright. A Y-Z value of 8-10 would appear very yellow where as a Y value of 45 would appear dull.

Clean colour is predominantly affected by climatic conditions (humid warm conditions increase yellowness) however there is evidence to suggest that some animals are genetically superior at producing whiter brighter wool. Clean colour can be optimised by altering the time of shearing.

Method

One kilogram randomly drawn samples were collected from 5 farms across the Islands. Randomly drawn samples were taken for fibre diameter analysis and a further sample was retained for mineral analysis (this is not yet complete). The remainder of the sample was sent to New Zealand Wool Testing Authority for colour, length and strength testing.

Results 1997/98

Line	Type	Staple Length mm	Staple Strength N/Ktex	Position of break (%)			Tristimulus values			Whiteness Y-Z	Sample Micron	Estimated Hauteur mm	Grade
				Tip	Mid	Base	X	Y	Z				
1	Hogg	107	27	12	38	50	67.5	69.2	69.9	-0.7	25.0	81.2	Part Tender
2	Shearling	112	29	0	10	90	64.3	66.1	66.8	-0.7	27.0	92.0	Part Tender
3	Ewe	93	19	0	0	100	67	68.9	69	-0.1	27.2	79.5	Tender
4	Wether	107	22	0	11	89	65.5	67.3	69.7	-2.4	28.4	87.2	Tender
5	Ram Hogg	120	31	10	40	50	69.5	71.4	73.1	-1.7	19.5	84.3	Sound
6	Ewe hogg	126	40	20	70	10	70.2	71.9	73.5	-1.6	19.8	86.2	Sound
7	Shearling Ewe	134	31	0	50	50	69.3	71.3	73.3	-2	21.5	91.5	Sound
8	Ewe	94	26	0	20	80	69.2	71	72.6	-1.6	23.0	75.5	Part Tender
9	Ewe	111	18	0	27	73	62.9	64.7	67	-2.3	26.8	82.9	Tender
10	Shearling	111	19	0	10	90	63.2	64.9	66.3	-1.4	23.7	83.6	Tender
11	Wether	115	19	0	0	100	67.9	69.7	70.4	-0.7	24.9	88.8	Tender
12	Hogg	108	18	0	10	90	67.8	69.5	71.9	-2.4	21.0	79.0	Tender
13	Hogg	111	23	0	70	30	68.6	70.5	72.5	-2	21.8	72.3	Tender
14	Shearling	115	21	10	40	50	66.2	68	69.1	-1.1	25.0	82.2	Tender
15	Wether	94	20	0	0	100	65.8	67.6	67.8	-0.2	27.7	81.0	Tender
16	Ewe	99	12	0	60	40	63.4	65.1	63.5	1.6	27.4	68.1	V Tender
17	Shearling	106	21	0	10	90	67.6	69.3	70.2	-0.9	25.4	83.6	Tender
18	Hogg	131	37	11	67	22	67.8	69.5	70.7	-1.2	22.3	90.3	Sound
	Mean	110.8	24.1	3.5	29.6	66.9	66.9	68.7	69.9	-1.2	24.3	82.7	
	Minimum	93	12	0	0	10	62.9	64.7	63.5	-2.4	19.5	68.1	
	Maximum	134	40	20	70	100	70.2	71.9	73.5	1.6	28.4	92.0	

Discussion

Colour:

The colour results for all lines is exceptional compared to world standards. An average Y-Z of -1.6 is better than most wool of this type produced world-wide. These results support Falkland Wool's reputation of being 'snow white'.

Staple Length:

Length results are as expected considering all wools were full length fleece.

Staple Strength:

These results were rather disappointing, and it would be fair to say, are well below those of wools from competing countries. 78% of lines sampled were part tender, tender or very tender. It is expected that the main cause of low tensile strength in this case is low levels of available feed during critical times of the year. Because of these results it is important that we continue to monitor these characteristics over the next two seasons to identify any seasonal changes.

Position of Break:

The position of break is split into three categories, Tip, Mid and Base. Tip breaks occur in the first few months after shearing while base breaks occur just prior to shearing and mid breaks nearer the mid point of growth. This information is useful to determine the time of year that the sheep is becoming most prone to fibre thinning. The table below shows the average results for each class of sheep tested.

	Staple Length mm	Staple Strength N/Ktex	Position of break (%)		
			Tip	Mid	Base
Ewes	99.3	18.8	0.0	26.8	73.3
Hoggs	117.2	29.3	8.8	49.2	42.0
Shearlings	115.6	24.2	2.0	24.0	74.0
Wethers	105.3	20.3	0.0	3.7	96.3

This table shows that different classes of stock appear to become most nutritionally stressed at different stages of fleece growth, though it is generally at a similar time of year. Most of these results can be easily explained.

Ewes have the lowest staple strength and staple length with no breaks during the first stages of growth. For this class of stock the tip breaks would occur in the period Feb. to April, thus we can assume that on average ewes are not at their most nutritional stressed stage during this time, which is expected. 27% of staples tested had their weakest point during the growth period May to October and 73% November to February. Thus, the most critical period that is effecting staple strength in ewes is from the point of lambing and during lactation, which again is largely expected. To improve the staple strength in ewes we must then concentrate on providing better nutrition either through supplementation or saved pasture, or look at the effects of internal parasite control during this period.

Hoggets come under most stress from March through to November with a slightly higher incidence in the mid period from March to August. This must be put in to perspective though as the hogget group gave the highest tensile strength results of 29.3 some 10.5 points higher than the ewes. This result indicates that as a group the hoggets had reasonable staple strength. There is however room for improvement, this maybe through an increased level of management of the feed resource (saving feed for the winter and early spring) and possibly the use of a targeted drenching regime.

Shearlings it appears are most nutritionally stressed during the later stage of fleece growth. This period, on most of the farms sampled, is from September through till shearing in December. Again this may be minimised by allocating more feed during this period or evaluating the effects of internal parasites.

Wethers almost unanimously had the weakest point in their staple in the later part of wool growth. This period is normally from October to January and may be explained by a lack of feed but would not be expected. There has been some documented evidence which suggests that weakness in the staple may occur if there is a sudden increase in wool growth. This might tie in better with the results for the wethers, and may be, it can be manipulated by controlled feeding during this period.

Estimated Hauteur

Hauteur is a measurement of fibre length in the Top. It is measured in millimetres and can be estimated using a formula which includes micron, length, strength, number of mid-point breaks and average vegetable matter content. The formula is widely used in the industry for evaluating wool's processing performance. Falkland wool is typically sold with a guaranteed specification of greater than 75mm Hauteur. Wools from other origins have attracted significant premiums when estimated Hauteur has exceeded 90mm. Another important characteristic of a combed Top is its coefficient of variation of hauteur (CVH). If this variation is too high (i.e. above 47-48%) spinners and knitters will expect problems with pilling in garments. CVH can be estimated from staple strength data, high CVH readings are the result of too high a ratio of tender wools in the lot and in turn a greater number of short fibres. Because of these fibres' length they are unable to be properly secured in the yarn and hence during wear will migrate and form a pill.

Summary

Falkland Island wool displays excellent natural colour which could be promoted more with the use of objective measurements. The level of colour results seen in this monitoring process rank Falkland Island wool as a speciality fibre. The staple strength results have provided us with a good starting point to investigate ways of improving this important processing characteristic of Falkland Island wool. We must now continue this monitoring process over the next two seasons to identify any seasonal changes.

Thanks to participating farms listed below:

Crooked Inlet

Goose Green

Kings Ridge

Little Chartres

National Stud Flock; Saladero.

SCIENTISTS GET DOWNWIND OF FLATULENT SHEEP

Wellington (NZPA) - New Zealand scientists are trying to get downwind of flatulent and burping sheep as part of a study on methane gas emission and its impact on the greenhouse effect.

Ruminant livestock were responsible for 90% of New Zealand's methane emission, with sheep accounting for half of this, a HortResearch scientist stated.

New Zealand was unique among developed countries in that methane emission outweighed carbon dioxide in importance. One molecule of methane was far more damaging than one molecule of carbon dioxide, the statement said.

Animal nutritionists and pasture scientists wanted to find out what affects methane gas emission in sheep.

AgResearch and National Institute of Water and Atmospheric Research were monitoring individual sheep while Landcare and HortResearch were measuring methane concentrations and fluxes in the air.

"We are interested in animal emission patterns, including day and night variations".

"The main problem is that what we measure depends on wind direction and where the sheep decide to be in the field at any given time, as they move around", said HortResearch scientist Murray Judd.

"Now we're thinking of videoing the sheep to record their positions, then we can start to build a computer model, which would be a new approach".

Source: New Zealand Press Association

IS STRENGTH WORTH THE WORRY?

By Sean Miller

A lot is talked about how good Falklands' wool is. And justifiably so. It scours very white and is very clean; some would say organic. However, one aspect where we suspect some local wool is falling down is its strength. Unfortunately, since strength is not routinely measured on Falklands wool before sale, we have little feedback from manufacturers and brokers to confirm its strength during processing. However there is some; both locally and internationally. In addition, data that Doug collected last year, and strength measurements performed on the grazing trial sheep at Fitzroy the previous year suggest that it is something we should at least be considering. So much so that of the wool Doug tested last year, 80% of it proved to be sufficiently tender to have been financially penalised if sold on the world market. The questions we are now investigating are how much Falklands' wool is affected, and is it a yearly phenomenon? These are being addressed by ongoing studies within the Department of Agriculture.

Wool strength is a critical factor affecting the processing quality of wool. Tender wool often breaks during processing. But it's not just that tender wool breaks, it's where it breaks that matters. If the wool breaks near the tip or the base of the staple the quantity of short fibres or noil increases during combing. Noil is sold, but at a price typically around 30% of the value of the wool tops, an increased percentage of noil thus reduces the overall value of the consignment being combed. If the fibres break near the middle, the short fibres that result cause problems in finished products. If the resultant variation in fibre length is too high it greatly restricts what the tops can be used for. With wear these shorter fibres are able to migrate from the spun yarn and form pills. This is not desirable if the manufacturer wishes to make high quality, high value fabrics and garments.

What causes tender wool? In short, it's a matter of physics. The biggest effect on wool strength is a change in diameter of the fibre along the staple. Where the fibre changes diameter, points of weakness are created. Nutrition and stress are the major factors causing thinning and thickening of the fibre. By contrast, breed doesn't effect the strength of wool. However, within a group of sheep some tend to grow stronger wool than others because they can better control the amount that the wool fibre thins down during the year than other sheep can. Also, fine wool can be as strong, and stronger than coarse wool. So how can that be?

When sheep eat less, or obtain fewer nutrients from the food that they are eating (for example winter compared to summer), the wool fibre responds accordingly. Fewer nutrients mean less wool growth, and that which does grow is finer. So the wool fibre gets thinner. We've all heard the term *hunger fine*. Conversely, the fibre gets thicker when more or better quality feed becomes available. It is at the points where fibre diameter changes that strength is compromised. In the Falklands, obvious times when the wool fibre is changing diameter are at the onset of winter (getting thinner - low feed availability, poor quality feed), and during spring (getting thicker - more feed available, better quality). Since these periods are mid-way through the wool growing 'season', breaks tend to be towards the middle of the staple. If these weak points are weak enough, they will severely limit the processing value of wool.

In the case of lambing ewes, a further stress is placed on them when they give birth and begin lactating. Since the ewe concentrates her nutrients for the growing lamb (via her milk), less is available for her wool, so the fibre gets thinner. And since ewes are not usually shorn until January or February, 3, 4 or 5 months after lambing, that weak point is also near the middle of the staple.

So how can we improve fibre strength? The number one answer is feed; more of it, and of higher quality during the critical periods when fibre growth is restricted. If variation in fibre diameter can be reduced, a stronger fibre is produced. *The pasture improvement program is the key to increasing fibre strength, wool quality, and quantity.* If you have been thinking about getting into pasture development, now is the time to do it. This is the best chance for you to capitalise on the benefits of growing more wool, carrying more sheep, raising more lambs, and increasing the quality of the wool you grow; all important considerations in a climate of low wool prices and if Falklands wool is to capitalise on its competitive advantages in the future.

The coming two months are the most critical for hoggets. The stress of weaning and their new reliance on 'learning to eat grass' often means they go backwards. The best way to maximise their chances of going forwards is to place them on clean, worm free pastures of the highest possible quality. Feeding them best at this time of year will help improve the strength of their wool. Since wethers and ewes have generally only recently been shorn, any feed restriction over the next month or so will result in a break being formed near the tip of the wool. Although this position is not as critical as a break near the middle, if the fibre is weak it can still affect processing qualities.

For lambing ewes, the most effective solution is to shear them near lambing time. Removing the wool before lambing results in the subsequent lambing break being at the tip of the next season's wool and not near the middle of this year's.

In the short term, the type of nutrient supplements we currently have under development should help camp-fed sheep. By increasing the quality and quantity of nutrients consumed by sheep during the late autumn, winter, and early spring periods, the rate at which the wool fibre thins and then thickens again will be reduced and fibre strength will improve. This is something we hope to demonstrate in our experiments this year.

Anything we do to improve the strength of tender wool will improve its market potential. The important questions to ask our manufacturer customers are do they care how strong Falklands wool is, and would they favour more Falklands' wool if it were stronger? Is this one of the factors influencing demand for our wool?

DIDDLE-DEE, DID YOU KNOW?

By David Broughton, Jim McAdam, and Aidan Kerr

Diddle-dee (*Empetrum rubrum*) is the second most common plant species in the Falkland Islands after Whitegrass. It is also found in southern South America, further north along the Andes to latitude 36° S, and on Tristan da Cunha. As it dominates much of the landscape an understanding of its biology, and how it can be managed, is highly relevant to agriculture.

The ten 'facts' about Diddle-dee listed below were collated by David from his review of the biology of Diddle-dee (and other Falkland shrubs) which he undertook at Queen's University with FIG funding. Diddle-dee is just one of the plants that another Queen's student, Louise Amos, is monitoring as part of her work on the revegetation of eroded areas in the islands.

1. **Diddle-dee represents the ancestral form from which the northern hemisphere Crowberries (*E. nigrum* & *E. hermaphroditum*) are derived.** All the members of the genus *Empetrum* are extremely closely related, and it is likely that they are highly similar in the other aspects of their biology, this allows research on other species to be used to speculate on Diddle-dee. It was traditionally placed in its own family, the Empetraceae, but it now seems likely that it should be incorporated into the Ericaceae (the same family as heather) in sub-family Vaccinioideae, along with the two species of Mountain Berry.
2. **The frequent association of Diddle-dee with drier soils in the Falkland Islands may be genetic in origin.** Work on the Eurasian *E. nigrum* has suggested that there may be two distinct ecotypes (populations genetically adapted to suit specific habitat conditions) present in this species, one adapted to wet conditions, and the other to dry. Diddle-dee may be the same, with the Falklands only possessing the dry soil ecotype. It is known that up to 12,500 years ago dry Diddle-dee heaths dominated throughout the high southern latitudes of South America. After this date temperatures and rainfall increased replacing heathland by steppe and forest. If the Falklands became isolated by rising sea levels before this floristic change became complete, the solitary dry Diddle-dee ecotype could have persisted here while elsewhere in South America dry and wet ecotypes met and coexisted. Some DNA studies on Diddle-dee, currently underway at Queens University, may help provide evidence for this.
3. **Diddle-dee may be of great value in colonising and stabilising bare and eroding soils,** and through its colonisation may help other plant species to establish. On areas of bare sand in Tristan da Cunha it is found in sparse hummocks overlying embedded boulders. These boulders provide the necessary stability for colonisation, as its roots creep between cracks in the rock. From this position the plant spreads downwind, colonising sand in the lee of the rock hummock. The Diddle-dee mat continues to grow together to form a continuous carpet and is colonised by fern species such as Leathery Shield Fern and Small Fern.
4. **Diddle-dee is wind pollinated and usually dioecious** (plants of two sexes), however monoecious (flowers of two sexes, but on one plant) and hermaphrodite (both sexes in one flower) plants have been found. Moderate numbers of large seeds are produced and require a low temperature to break seed dormancy. Most seeds germinate in the spring following their release, the remainder form a seed reserve in the soil, capable of germinating in small numbers for several years.
5. **Establishment from seed may be rare,** especially in the stable, closed, vegetation found in the Falkland Islands. Normally, reproduction by creeping vegetative growth is the commonest and most effective strategy. A single plant of Crowberry can grow outwards at a rate of 10 cm per year and eventually cover an extensive area.

6. **Fruiting success may be related to climate.** For example, a poor crop of Diddle-dee berries in 1998 was reported to Louise Amos by several people. This seemed to correlate with the cold, late, spring in 1997. Work on the related Crowberry (*Vaccinium oxycoccus*), suggests that the weather between the time of flower bud formation through to the formation of young fruit is particularly important and can affect fruit yield. Up to 90% of flowers fall in frequent rain and low air temperatures, and up to 80% of flower buds are damaged by early summer frost. In *V. macrocarpon* 5% of flowers die at 0° C and 100% at -10° C. The Islands are known for their mild climate and the lack of climatic extremes, therefore it is likely that when extremes do occur they would have a noticeable impact on the degree of fruit set in Diddle-dee.

7. **Berry production could be manipulated using fertiliser.** Fruit drop is common in Crowberry. This is a long lived species (to 140 years) and fruit abortion may help reduce carbon and nutrient losses. This is an adaptation to nutrient poor environments, where vegetative reproduction is more important than reproduction by seed. Nutrient applications can induce a 15% increase in individual fruit fresh weight, but this does not translate into an increased fruit yield, due to a reduction in fruit numbers.

8. **The potential toxicity of Diddle-dee to other plant species could adversely affect pasture improvement.** Introduced grasses and legumes, in particular, may have no natural resistance to its phytotoxicity. The chemical composition of Diddle-dee litter may also have strong effects on nutrient cycling, inhibiting the development of soil fertility.

9. **Diddle-dee could benefit agriculture by providing shelter, from cold, for plants which have higher agricultural value than Diddle-dee itself.** For example freezing temperatures under Crowberry heath on a winter night in the Netherlands were reduced to -8° C when the air above was -14° C. In the Falklands the value of Diddle-dee for sheltering the 'finer' grasses has long been recognised and strip mowing of Diddle-dee is preferred to wider mowings to maintain some shelter. Studies elsewhere have shown that the removal of shrubs alone does not always benefit grasses. From the limited experimental work in the Falklands the end result seems to depend on the height of the Diddle-dee and the type and amount of plants present. Tom Davies reported encouraging results in the spread of smooth stalked meadow grass when low bogs of Diddle-dee were mown on a ridge near Chartres. He also reported an excellent kill of much taller Diddle-dee at Roy Cove but with improved growth of only Pig Vine and Christmas Bush. He recommended sowing grass seed prior to mowing at sites like the latter. Similarly, in Jim McAdam's 1977 experiment at Whalebone Cove, Diddle-dee was successfully killed when it was flail-mowed at or below 5 cm. A year later, only the small rush had increased in cover, 'otherwise the site remained barren'. Regular intensive stocking around many settlements has destroyed Diddle-dee and replaced it with grassy swards but soil erosion has often occurred too. Thus there is a need for more research on Diddle-dee removal before firm recommendations can be made.

10. **Diddle-dee may have properties of medicinal value.** Branches of Crowberry have been found to contain compounds that inhibit the growth of bacteria which cause Tuberculosis.

Finally, one thing we still don't know is **how or why was Diddle-dee so named?** If anyone has any ideas about its common name and more importantly its management that they wish to pass on, then please get in contact with Aidan. David will be visiting the Islands from March 5th and can be contacted via Aidan or through Falklands Conservation.

A FARMER AND THE GRASS PLANT : A FABLE

By anonymous

Once upon a time in a faraway land there lived a simple farmer who loved his sheep and goats, the air that he breathed, the plants on his farm, and all things natural.

One day the farmer found a strange and exciting grass growing in a patch of diddle-dee. The farmer had never seen anything like it before and because his sheep ate the grass with relish he sent a sample to the agronomist at the Department of Agriculture.

The agronomist became excited when he saw the sample. "*Grassicus raricus*" he exclaimed, and he wrote to the farmer saying the grass was a great find as everyone thought it was extinct. He asked the farmer to take very good care of this rare and potentially valuable species. The agronomist also wrote a memo to the Director of Agriculture who immediately informed all staff about the farmer's discovery, because it gave him a chance to implement a grass species conservation policy and to target strategic pasture development objectives. He then instructed one of his agronomists, who had an interest in rare plants, to visit the farmer's property and write a report. Unfortunately there was no scope for such a visit in what remained of the financial year and, owing to cutbacks in travel allowances and the need for a reassessment of travel priorities, no visit was possible for another two years. In the third year a contract officer visited the farmer and confirmed both the existence, rarity, and value of the grass.

With the delivery of the officer's report the Department of Agriculture proceeded to inform other interested departments and the relevant international authorities. It entered the name and location of the plant on the database of rare flora. The government's legal department started on a strategy to implement special protective legislation and instructed both its lawyer and research assistant to draw up suitable draft documents.

A number of sophisticated studies were begun by the government's Conservation Section, which in conjunction with the Environmental Resources Management Committee, sought to relate the grass location to rainfall, day length, soil type and other environmental parameters.

The Department of Agriculture also raised the issue of the rare grass at a meeting of the Interdepartmental Working Group On Land Use Planning. The grass rose higher and higher on the agenda at successive Working Group meetings, but after a few years it was displaced by higher - priority species, and the working group never actually discussed the grass or what to do about it.

Earlier, however the Working Group had applied to the royal court for money to conserve the grass under the King's Threatened Plants Rescue Programme. Because the programme received many such applications, and because each one required full assessment by a panel of botanical experts, it was some time before the Working Group's application was processed. The result was favourable. The application was short-listed for funding, and after several more years the Working Group received a royal grant. A consultant was then hired to determine precisely what additional information was needed in order for the rare grass to be effectively studied and conserved, and, which government department would be best suited to carry out the task.

The consultant worked quickly and prepared a detailed report, which spelled out exactly how much money would need to be spent on additional field work and management studies. The Working Group referred the report to the Environmental Resources Management Committee, who in turn submitted its proposals to the Treasury Liaison Unit, which advised the King on how government resources could best be allocated given the various constraints on expenditure.

In the meantime the Department of Agriculture had informed the International Board for Genetic Resources, who are based in, and closely allied to the Food and Agricultural Organisation of the United Nations, Rome, Italy. They, wanting to test their models for rare, but potentially useful, plants protection sent a small team of experts, namely a biogeographer, a geneticist and seed storage technician to independently assess the situation. (Their report is still awaited.)

Ten years had passed since the farmer had made his discovery. In the meantime, the farmer, with some weekend help from the agronomist, had put a stock-proof fence around the rare grass, and the little colony had grown on

and prospered. The farmer got a great deal of pleasure each Spring when he saw the grass area expand and he could feed it, judiciously, to his stud sheep. The farmer believed he had done the whole kingdom a service when he put up the protective fence, so he wrote to the government asking for £100, which was the cost of the fencing materials.

It took some while for him to get a reply as his letter had to circulate around various departments in order that the proper department be required to answer. Eventually the chairman of the Interdepartmental Committee On National Planning, the successor to the Interdepartmental Working Group On Land Use Planning, replied with a long and polite letter. He explained that, while they would like to help the farmer cover his fencing costs, there were still some small, mainly administrative obstacles to spending royal money on private land. Besides, nearly £100,000 had already been spent on the rare grass in government officers' time, date processing, publicity, interdepartmental meetings, consultants' fees etc., and there was nothing left in the budget for that particular item. The officials were sorry, but there was nothing the chairman could do at the present time. However he would ensure the matter would certainly be raised at the appropriate meetings in the next financial year.

The letter concluded "my committee greatly appreciates your efforts in helping the government to conserve this priceless part of our natural heritage".

(Plagiarised and blatantly reworked from an article by Dr. Bob Mesibov Research Assistant, Queen Victoria Museum and Art Gallery, Launceston, Tasmania.)

"BASIC PASTURE SCIENCE FOR FARMERS" OR "HOW TO GET MORE OUT OF THE FARM"

The Department of Agriculture is planning to give a series of courses on soil/plant/animal relationships aimed at giving farmers an understanding of how to improve their grazing systems and get the best from their farms.

The course will be conducted over 2 days and the tentative dates are:

Fox Bay	Monday/Tuesday	4/5 April
Hill Cove	Wednesday/Thursday	6/7 April
Port Howard	Friday/Saturday	8/9 April

All interested parties are invited to attend (yes that means wives!!) and at this stage the Department would welcome expressions of interest so that all necessary arrangements can be made. Those who have attended the previous courses are invited to return for a refresher.

Please contact Charlene Rowland for more information.

Page filla!

A successful businessman became disenchanted with the stress of the fast life in the big city and decides to chuck it all. He takes his savings and purchases a large ranch in the middle of nowhere in Montana. After a couple of months of enjoying the solitude he hears the drumming of hoof beats outside his cabin. Grabbing his rifle he challenges the man riding up on the horse. "Hold it neighbour," the man says. "I'm your neighbour, I have a ranch only 6 miles from here, and I want to invite you to a Welcome Party I'm throwing for you next Saturday. There's going to be music, dancing, hugging, kissing, drinking, fighting We'll have a great time". Not wanting to be unneighbourly, the new rancher lowers the rifle and asks, "How should I dress?" "Aw, don't matter" replied the neighbour, "Only gonna be the two of us".

Agricultural Machinery Open Day

Saladero/Brenton Loch
17th March 1999
11.00 a.m. - 4.00 p.m.

Come and see the full range of new agricultural machinery in use.

Direct Drills (DoA & FLH)
Pneumatic Seeder
Slasher
Flail Mower
Various Fertiliser Spreaders
ATV Sprayer
Wick wiper
Boom Sprayer
Ditcher (in conjunction with Richard Stevens/FIDC)
Mulcher (FLH)
Tine Cultivator with Crumbler (FLH)
Plus various other attractions.

Track will be sign posted from Goose Green.

Those wishing to come across on the Tamar from Port Howard (**Departs Port Howard 7.00am 17th March and returns departing Saladero 4.00p.m. 18th March**) please contact Charlene Rowland DoA as soon as possible to book your berth. (**Numbers are limited**). Accommodation is the responsibility of the individuals, however transport to Stanley will be made available.

WANTED TO BUY

NEWANS STATION - Would like to hear from farmers, who would be interested in supplying young oxen for finishing at Port Harriet Point. It is our intention to purchase between sixty to eighty head per year, depending on availability and market requirements. We would be very keen to trade with farmers that could supply steers on a regular basis.

**For further information required, please contact
Mike Evans telephone: 22156 or Joe Newell fax/phone:21081**

EYE WIGGING TRIAL - SHALLOW HARBOUR 1998

By Doug Cartridge

Aim of Trial: To identify the benefits of eye wiggling hoggets and shearlings in mid-winter in the Falkland Islands.

Introduction: Ali and Marlane Marsh of Shallow Harbour farm kindly offered to assist with this trial because of their wish to start eye wiggling their young sheep. However they had no quantifiable evidence of the benefits of this practice. There is anecdotal evidence and theory that suggests the benefits of eye wiggling. At present eye wiggling is not a common practice on Falkland Islands farms however it was a widely used management practice in the past. Young sheep losses are comparatively high in the Islands, with most farmers suggesting the largest cause of death is sheep becoming trapped in ditches. This begs the question, are they dying in ditches due to, their inability to see the ditch? or inability to get out of the ditch due to malnutrition?. This trial's aim was to partly answer the first part of this question, while Sean Miller's work is related to the second part.

Method: On the 18th - 19th July 1998 a random selection of approximately 200 hoggets and 200 shearlings were face cover scored (grade 1-5, with 1 being very clear faced and 5 being very woolly), weighed and tagged. Approximately 1/2 of each face cover score group were then eye wiggled with machine shears and the balance were left. With the balance of the Hogget and Shearling Flocks (609 Hoggets and 520 Shearlings) the clearer faced sheep were taken off on the drafting gate by Ali Marsh. All sheep were individually tagged. All of the woolly faced (approximate face cover score 3.5 - 5) and half of the clearer faced sheep were eye wiggled and the balance left. (This was done to determine whether eye wiggling of the visually woollier faced sheep would have the same effect as eye wiggling the whole flock.) The hoggets and shearlings were then returned to their respective camps.

In the middle of November 1998 the hoggets were gathered for shearing. All hogget fleeces were weighed (unskirted fleece only) and recorded against their individual tag number. Live weights were recorded post shearing of those sheep who were in the initial randomly selected group.

In early December the same process was carried out with the shearlings. After shearing of these groups and up until the stage that all camps on the farm had been 'clean' gathered, any tagged hoggets and shearlings found, which had not previously been shorn, were recorded as being present (6 hoggets and 11 shearlings) for the survival calculations. These sheep were excluded from the fleece weight and live weight comparisons.

Summarised Results are shown below:

Hoggets
Table 1: Randomly selected group

	No. 18/6/98	Live weight 18/06/98	Live weight 25/11/98	Weight Gain	Fleece weight 25/11/98	No. found alive	% Losses
Not Wiggled	100	27.6	23.9	-3.2	2.7	88	12.0%
Wiggled	100	27.3	24.8	-2.5	2.6	93	7.0%

Table 2: Comparison of all other hogget groups

	Fleece weight		No. found alive	% Losses
	No. 18/6/98	25/11/98		
Eye Wiggged drafted clean faced	225	2.7	210	6.7%
Eye Wiggged drafted woolly faced	176	2.7	169	4.0%
Not Wiggged drafted clean faced	208	2.7	187	10.1%

Table 3: Overall Hogget Survival Analysis

	No.		Loss	% Losses
	18/6/98	25/11/98		
Not wiggged	308	275	33	10.7%
Wiggged	501	472	29	5.8%

Hogget Losses reduced by 46%

Discussion: Overall hogget losses were reduced by 4.9 percentage points by eye wiggging. This equates to a 46% reduction in loss. Table 1 shows the benefits of eye wiggging from the randomly selected group, in this case there is an average reduction in fleece weight which was not repeated in all other comparative groups. The reasons for this are unclear, if the average weight of eye wigs cut off at wiggging of 25.7 grams/hd were added back to the fleece weight the deficit still exists. The most likely reason for this is that this group, even though randomly selected, were genetically lower wool producers. Eye wiggging had the effect of lifting subsequent liveweight gains. This was most pronounced in the very woolly headed sheep, though the effect was seen over all face cover groups including the very clean faced sheep. The comparison in Table 2 suggest that gains in survival of 3.4 percentage points can be made by eye wiggging visually cleaner faced sheep.

Shearlings

Table 4: Randomly selected group

Face Cover	Score	Live weight		Gain	Fleece weight		No. found alive	% Losses
		No. 18/6/98	18/06/98		08/12/98	08/12/98		
Not Wiggged	102	31.3	29.6	-1.8	3.11	92	9.8%	
Wiggged	99	31.4	30.1	-1.3	3.25	94	5.1%	

Table 5: Comparison of all other shearling groups

	Fleece weight		No. found alive	% Losses
	No. 18/6/98	08/12/98		
Eye Wiggged drafted clean faced	158	3.2	150	5.1%
Eye Wiggged drafted woolly faced	195	3.1	182	6.7%
Not Wiggged drafted clean faced	167	3.2	153	8.4%

Table 6: Overall Shearling Survival Analysis

	Shearling	Wiggging	Loss	%
Not wiggged	245	269	24	8.9%
Wiggged	426	452	26	5.8%

Shearling losses reduced by 36%

Discussion: Overall shearling losses were reduced by 3.1 percentage points by eye wiggging as shown in Table 6. This equates to a reduction of 36%. Table 4 shows a 4.8 percentage point reduction in losses from eye wiggged sheep in the randomly selected group, while fleece weights and live weights were both slightly better in the treated group. Again Table 5 shows a reduction of 3.3 percentage points in losses from visually cleaner faced sheep which are eye wiggged.

Economic Analysis:

	Hoggets	Eye wiggged	Not eye wiggged
Number		501	308
No. Shorn		472	275
Average fleece weight (kg)		2.7	2.7
Total fleece wool (kg)		1274	743
Estimated weight of oddments (kg)		127	74
Est. Value/kg of fleece (p)		150	150
Est. Value/kg of oddments (p)		80	80
Total value of wool (£)		2013	1174
Wool value / hd present at time of eye wiggging (p)		402	381
Gross Benefit (p)		21	

	Shearlings	Eye wiggged	Not eye wiggged
Number		452	269
No. Shorn		426	245
Average fleece weight (kg)		3.2	3.2
Total fleece wool (kg)		1363	784
Estimated weight of oddments (kg)		136	78
Est. Value/kg of fleece (p)		140	140
Est. Value/kg of oddments (p)		80	80
Total value of wool (£)		2017	1160
Wool value / hd present at time of eye wiggging (p)		446	431
Gross Benefit (p)		15	

The calculated economic gross benefit of eye wiggging hoggets was 21p per sheep and shearlings 15p per sheep. This benefit was realised at first shearing and takes no account of wool shorn off these sheep in future years. Eye wiggging is a job that is carried out in the winter, the sheep do not have to be dry and in most cases could be done by the farm owners/managers/employees. It is not unreasonable to expect one person to eye wig 80-100 sheep per hour, thus a benefit of £16.80/hr (80 X 21p) eye wiggging hoggets is quite achievable. (This of course takes no account of time taken gathering and returning sheep to camp.)

Summary:

The results from this trial show that losses can be reduced by up to 46% in hoggets and 36% in shearlings through eye wiggging in mid winter. Eye wiggging increased survival in visually clearer faced as well as woollier faced sheep. There was generally no effect on greasy fleece weights in the first shearing post treatment however there was a consistent increase in live weight gain. The economic analysis shows that the operation produces a good return. With the facts and figures in mind, all hoggets and shearlings in the Falkland Islands should be eye wiggged mid winter if farmers aims are to reduce losses and in return maximise farm income.

Thanks to Ali and Marlane Marsh for their assistance and hospitality while carrying out this trial and also to Lucy Ellis for her input into making this trial a success.

POTENTIAL FOR INCREASING BEEF PRODUCTION BY IMPORTING BREEDING ANIMALS, IMPROVING FEEDING AND MANAGEMENT.

By Robin Thompson

Introduction

Realisation of the abattoir will both improve the ability to slaughter and process animals and increase the number of available markets for meat products. Before initiating programmes at the farm level to produce vast quantities of meat products potential markets and their product specifications must be investigated and determined. This is essential because the production process from farm to plate is a long one with considerable lag periods so initial errors can take considerable time to rectify.

During the past two years there has been considerable debate as to the ability of the current Falklands cattle herd to produce sufficient animals of the desired quality to meet the potential market demands. This paper is an attempt to discuss the issues pertaining to this question so as decisions concerning the importation of live breeding cattle can be made in a rational and informed manner.

Disease free status

The Falklands beef cattle herd is probably unique as it does not host any of the diseases that can threaten animal and or human health. This attribute must be jealously guarded, as it is probably the major competitive advantage of the industry. The industry here not only has to remain disease free but must do nothing that could cast doubt upon that status. Currently it is possible to import live animals from Australia and New Zealand that could satisfy disease status protocols designed to minimise the risk of introducing an exotic disease. Should such an importation take place and the country of origin later diagnoses a disease exotic to the Falklands and one over which there is concern for human health then the Falklands disease free status, and major competitive advantage would be questioned by customers. Such questioning will occur irrespective as to whether or not the disease is found in the Falklands and the associated 'scare' publicity could sever relationships with customers.

Local genotype

Falkland Island beef cattle have developed from a diversity of backgrounds and have become adapted to surviving and reproducing in the local environment. Such adaptation does not happen quickly, hence animals imported from an environment with different climatic and feed status would not be expected to perform to their genetic potential and losses would be inevitable.

Many of the local beef cows have a distinctly dairy breed conformation characterised by lack of muscling of the hind quarters. Crossing these animals with world class beef bulls using artificial insemination can quickly change herd body conformation. Such offspring have the advantage of being bred here and having one parent genetically adapted to the local environment. Adoption of standard management procedures and handling equipment makes artificial insemination of significant numbers of animals a practical alternative to natural mating. An added advantage of artificial insemination is that the best available bull(s) can be used at each mating rather than being committed to using an imported sire for his complete life so as to maximise the benefit of the investment.

Limitations to beef production

The annual quantity of beef produced will be determined by the number of breeding animals and their breeding performance together with the quality and quantity of available feed. I believe production by the animals currently present in the islands is less than their genetic potential due to feed limitations. This is substantiated by observations and measurements made at Albemarle Station where steers attain 500kg live weight by the time they are three years old. This is only because of access to better quality feed available from coastal tussock areas. In contrast yearlings grazing predominantly whitegrass camps at Brenton Loch

increase their live weight at about 0.2 kg per day which will take them about six years to attain a similar weight. Table 1 shows the effect of animal growth rate on finishing time and highlights the advantages of improving growth rate.

Table 1. Effect of growth rate on finishing time

Growth(kg/day)	0.2	0.3	0.4	0.5	0.6	0.7	0.8
Days to 500 kg	2500	1667	1250	1000	833	714	625
Years to 500 kg	6.8	4.6	3.4	2.7	2.3	2.0	1.7

Increasing cow numbers will increase overall animal production but carcass quality will remain that of aged beef for which there is limited world markets. Reducing the time between birth and finished beef by improved feeding reduces the proportion of non saleable animals being supported by an enterprise at any one time. Consequently the area of land required to produce a carcass decreases and income per area increases. Improved feed availability and quality will have a large, immediate impact on animals already available where as breeding will have a small relative effect over a longer time.

Current production and demand

Currently the Islands' cow population is about 1200 head. Assuming a calving rate of 50%, progeny growth of 0.2 kg live weight per day and a cow replacement rate of 10% about 480 animals should be available for annual sale from a steady state situation. The Stanley consumer survey conducted last year suggested about 300 carcasses are consumed annually. If this is correct and the above production data is accurate then about 180 animals are available for on farm consumption and other markets. Anecdotal evidence suggests most farms consume about two animals annually, consequently little surplus production would be currently available.

Increased calving percentage

Results from a producer survey conducted in 1996 by the Department of Agriculture indicated that only about one in three cows calve annually. Increased calving percentage through improved feeding can increase the number of animals available for sale (table 2) whilst maintaining the national herd at 1200 cows.

Table 2. Effect of calving percentage on animals available for sale from a herd of 1200 cows

Calving %	50	55	60	65	70	75	80	85	90	95
Calves born	600	660	720	780	840	900	960	1020	1080	1140
Sale heifers	180	210	240	270	300	330	360	390	420	450
Sale steers	300	330	360	390	420	450	480	510	540	570
Total sales	480	540	600	660	720	780	840	900	960	1020

Improved herd management

The lack of handling facilities still limits the ability of producers to adequately manage their herds. The inadequacy of current structures does not however prevent adoption of basic management practices such as controlling breeding by bull placement and grazing control. If the beef industry is to develop producers must manage their herds to at least the same degree as their sheep flocks. Table 3 depicts the increase in cow numbers and sale animals that could occur through improved feeding and management. This scenario should not be regarded as over ambitious as some Falkland farms are currently achieving it and worlds best practice is still well in advance of it. Given this scenario about a thousand animals are available for slaughter by 2010. If improved feeding and management strategies are not adopted and beef productivity remains static at its current level about 500 additional breeding animals would need to be imported into the national herd by 2002 in order to achieve the same result.

ADMINISTRATION, MANAGEMENT & FINANCE

by Charlene Rowland

As all farmers have to sit down and do a bit of thinking in the office, this article is more of a checklist from which you might get a few ideas to fit into your busy daily life.

A list of 3 points that might get you thinking!

- Successful management is 70% **knowing what to do** and 30% **knowing when to do it**.
- Something like target liveweights, weighting stock and good genetics might be obvious but those who are getting things right are making the most money.
- Good management is not just doing something **it's doing it well**.

Assumptions for Table 3:

Slaughter live weight of 500kg achieved at three years of age

Heifers first calve at three years of age

70 % calving

10% of cows replaced annually

80% of remaining heifers after selecting replacements are used to increase herd size

Initial 1999 cattle numbers based on 1996-97 farm statistics

Table 3: Beef cattle productivity through better management

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Cows	1200	1200	1224	1366	1497	1720	1965	2227	2530	2878	3271	3718
Calves born	600	600	857	956	1048	1204	1375	1559	1771	2014	2290	2602
1 Yr heifers	150	300	300	428	478	524	602	688	779	886	1007	1145
2 Yr heifers	300	150	300	300	428	478	524	602	688	779	886	1007
3 Yr heifers			150	300	300	428	478	524	602	688	779	886
Replacement heifers			120	122	137	150	172	196	223	253	288	327
Herd increase heifers			24	142	131	223	245	262	303	348	393	447
1 Yr steers	150	300	300	428	478	524	602	688	779	886	1007	1145
2 Yr steers	300	300	300	300	428	478	524	602	688	779	886	1007
3 Yr steers			300	300	300	428	478	524	602	688	779	886
Sale heifers			6	36	33	56	61	65	76	87	98	112
Total sales				336	333	484	539	589	678	775	878	997

Feed requirements and cost

Beef animals require pasture to provide a pre grazing herbage mass of about 1500 kg green dry matter per hectare at 65% digestibility in order to increase live weight by 0.5 kg per day in the Falklands environment. This means that about nine tonnes of such feed is required per animal from birth to slaughter at 500kg live weight. The annual productivity of improved pastures in the Falklands is not yet known but a very conservative estimate would be 3000kg dry matter per hectare. Accepting this estimate necessitates provision of three hectares of improved pasture per beef animal finished for slaughter or 3000ha to finish a 1000 such animals by 2010. This feed is required irrespective of the source of the animals if young, high quality beef is to be produced

The current estimate to produce and maintain improved pasture is £220/ha. Improved pasture would be expected to have a productive life of at least 15 to 20 years so feed costs per animal are likely to be in the range of £44 to £33.

Increasing animal numbers by provision of improved feed means that the farming system as a whole develops in synchrony where as if numbers are suddenly increased by importation the system is out of balance and probably destined for disappointing results.

Summary

There is little doubt that availability of feed of acceptable quality and quantity is the major factor limiting animal production in the Falkland Islands. The importation of animals to either supplement or replace those currently available here will result in very little extra animal production unless the feed supply is improved. Pasture improvement needs to take place at least two years ahead of anticipated increases in animal number or performance. Consequently, careful long term planning of development strategies is imperative.

The current Falklands beef herd has the potential to increase in number and productivity if feed and management limitations are removed. This requires a major injection of capital along with management skills and understanding. Given the current state of financial uncertainty, investment in pasture improvement rather than importation of live cattle would seem more prudent because once the pasture resource has been developed it can be used for enterprises other than cattle where as a cow has but one use.

Self Discipline	Riding motorbikes is more fun than bookwork. Good financial managers adopt a discipline and routines to budget, control cash and they plan ahead.
Rooster or Night Owl.	What's your best thinking time? Do book work when your brain works well.
Monitoring and Feed Planning.	Technology makes it possible to measure and predict the feed supply on your farm
Computer Technology.	Budget tools like the many software packages take the number crunching out of financial control. Makes it quick and efficient. Enhances business confidence to know where you are at and to easily work out where you are going. Computers can be excellent for solving the "what if" question. Computers have to be used to get a payback (if unsure -ask the kids!)
Basic Records and Filing System.	Rainfall, stock weights, monthly stock reconciliation and stocking rate, fertiliser application. Filing Cabinet. Wall planner (with something on it!)
Lists.	Jobs for the week. Jobs for the month. Revise each month. Check progress.
Involve your wife.	Explain your plans. Women have a keen sense of getting things done.
Punctuality and Tidiness.	A tidy mind is a tidy farm. Putting things off is a negative practice.
Agricultural Department/ Accountant.	A good rapport with these people is a valuable relationship. Always a sounding board. They know you and your business. They may have confidence in you when you may lack it in yourself. Maintains an element of accountability.
Bank Manager.	Easily tamed by tea, cake and regular updates.
Faxes/Answer Phone.	Necessary evils. Improves efficiency of office time. Affords some privacy.
Internet and email.	The Internet places the world at your fingertips, opens your mind and is a great source of reference. <i>Doesn't necessarily enhance profits.</i> Email is fast, convenient although can be expensive.
Discussion Groups.	Important to compare with others. Stimulus for new ideas. Team support. Good fun.
Staff Management.	There are no poor soldiers - only poor generals. Lead by example.
Performance Check.	How are you performing compared to similar operations? e.g. talk with your neighbours etc.,
Estate Plan & Equity Plan.	A current will. A plan for your retirement and succession? Do you know how much net equity you will need to retire with, and how to achieve it?
Health and Safety.	Read the manual. Take responsibility. Be able to demonstrate that you understand your obligations.
Employment Contracts.	Main advantage is to make you think about the job, responsibilities and rewards - negotiate it and then put it in the bottom drawer.

Source: Ag Letter - Baker Associates Ltd, NZ

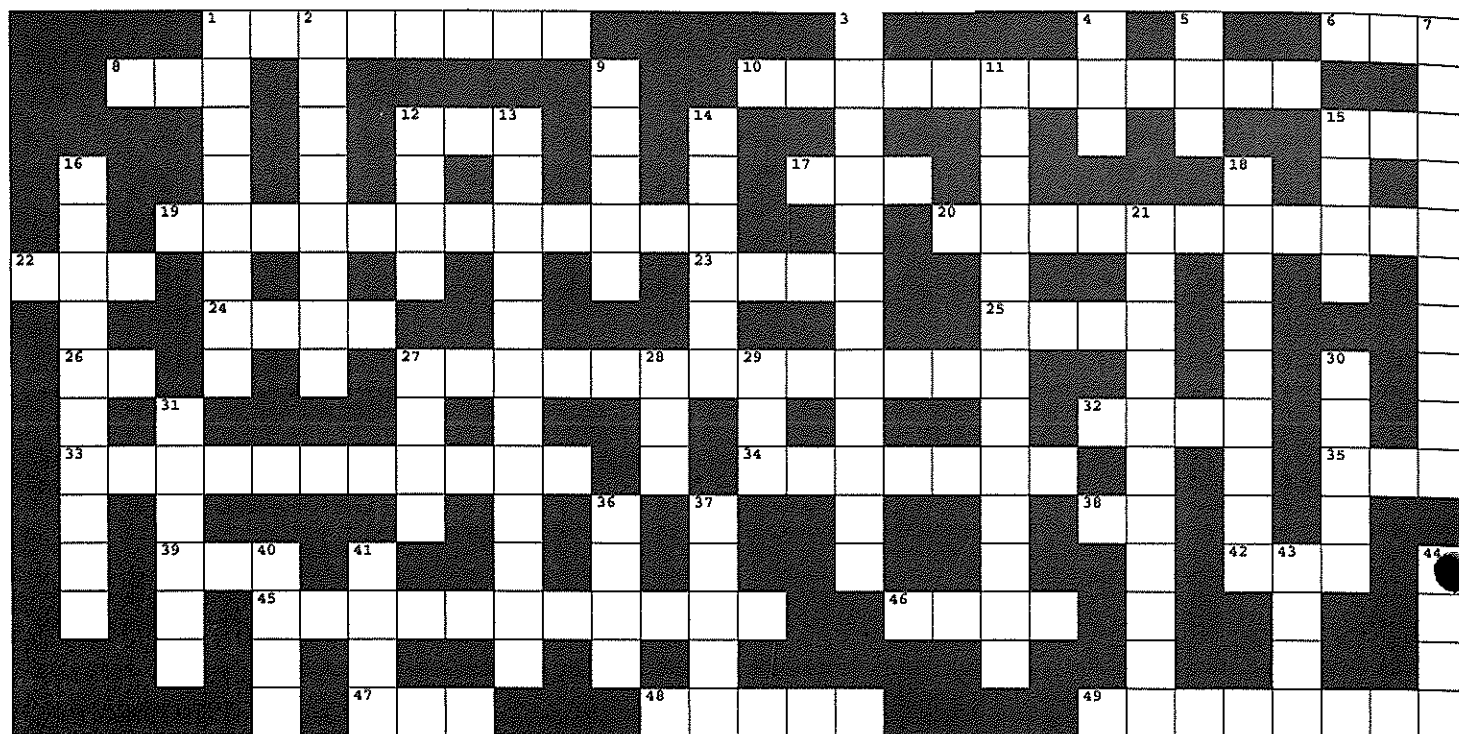
CORRECTION FROM FARMERS ASSOCIATION

The Farmers Association would like to make a correction to the notes from the Agricultural Management Committee, printed in the February edition of the 'Wool Press'. From the 25 September meeting (c) it states that there was "little interest from Falkland Island farmers in co-hosting a return visit by Chilean farmers".

In fact, during Farmers Week last July the Farmers Association Committee worked out an itinerary for Chilean farmers. Hotels, lodges and FIGAS were contacted for prices, and this information, with the suggestion that either late September/early October 1998 or March 1999 would be the most suitable time, was relayed to a contact in Chile. Nick Pitaluga was our main contact at this end, but up until he left to go on leave no real answers had been forthcoming from Chile. Several other people then tried to further the proposal, but to no avail.

The lack of interest was definitely not coming from Falkland Islands farmers!

CROSSWORD



ACROSS

1. FARM FORMALLY CALLED GIBRALTAR STATION
6. DOMESTIC ANIMAL
8. SHORT FOR THE DEPARTMENT OF AGRICULTURE
10. THERE IS ONE AT BRENTON LOCH
12. A SPIDERS TRAP
15. WATER THAT SURROUNDS THE LAND
17. SHORT FOR A FACSIMILE MACHINE
19. EATEN OUT OF NEWSPAPER
20. RECIPE IN LAST MONTHS WOOL PRESS
22. FEMALE PIG
23. TO IGNORE SOMEONE
24. YOUNG FEMALE PIG
25. MALE ANMIAL OF GENETIC BREED
26. TOO, TWO, AND
27. THIS IMPORTANT PERSON IS ARRIVING IN THE ISLANDS
32. A SMALL PARTICLE
33. DOUG CARTRIDGE'S TITLE
34. MPA'S TIMMY AND TOMMY
35. ANOTHER NAME FOR A DONKEY
38. BE TO A GOOD THING!
39. TURN ON TO LET WATER POUR OUT
42. TO TAKE FOOD INTO YOUR MOUTH AND SWALLOW
45. WE NEED THIS TO SWITCH A LIGHT ON
46. MATERIAL TAKEN OFF A SHEEP'S BACK
47. SWINE
48. WE GATHER THESE TO SHEAR
49. HARD WORK IN THE SUMMER MONTHS

DOWN

1. CAPITAL OF CHILE
2. AIRLINE FLYING BETWEEN SANTIAGO AND THE FALKLANDS
3. SMALL RED BERRIES THAT LIKE TO GROW AROUND STONE RUNS
4. THE WHOLE AMOUNT OR NUMBER
5. YOU WRITE WITH - ?
7. SMALL WHITE BERRIES THAT GOOD FOR MAKING CAKES
9. ABILITY TO THINK REASONABLY
11. FORMALLY PORT HARRIET
12. A CURRENT OF AIR
13. NAME OF A DAIRY IN THE FALKLANDS
14. LOCAL GREEN FODDER FOR ANIMALS
15. TWINKLES IN THE SKY
16. USUALLY HELD AFTER SHEARING HAS FINISHED
18. NAME OF AN ISLANDER AIRCRAFT
21. THE NATIONAL BEEF HERD'S HOME
27. BUCKET
28. WHEAT HAS THESE BUT NOT FOR LISTENING
29. TO LASH OUT
30. TO PUT SOMETHING IN THE GROUND
31. TWELVE OF THESE IN A YEAR
36. A SCOTTISH LAKE
37. BAND ON YOUR WRIST TO TELL THE TIME
40. ANIMAL SKIN
41. SHOUT FOR ASSISTANCE
43. A SLIGHTLY OPENED DOOR
44. AT THE END OF A CORD ON AN ELECTRICAL APPLIANCE

Answers will be in next months issue.



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PLUS ALL THE REGULAR FEATURES AND MORE!

*The Wool Press is published by the Department of Agriculture. Editors: Mrs Charlene Rowland
Telephone: 27355 Fax: 27352 or e.mail: doa.fig@horizon.co.fk*

EDITORIAL

The Department of Agriculture was honoured and privileged to have had a visit from His Royal Highness Prince Charles earlier this month. Prince Charles, who stayed in the department for 45 minutes, was given a brief and informative tour of what the Department is achieving i.e. beef, sheep, legume, pasture, worm and nutrition trials, plus a look at the Falkland Islands Trust and Falkland Islands Conservation. The Prince was especially interested in the Agriculture of the Falklands because of our very distinctive green image.

Also this month saw a very successful two days at Brenton Loch and Saladero National Ram sale. Many farmers arrived over either by plane, Tamar FI or vehicle and seemed to have had a very enjoyable time. The first day was an Open Day at Brenton Loch and Saladero, showing various trials and machinery such as shelterbelts, pasture improvements, legumes, cattle, fertilisers, wick wipers and many more, all followed by a very enjoyable BBQ. The second day being the Ram Sale, not as many farmers attended, but there was still good turnout. All 68 animals were sold and most were taken either by Tamar FI to West Falklands or overland to their new homes.

Enclosed is the Farming Statistics form, I have sent this form out a month earlier as some of you are going on holiday. Hopefully those farmers who are usually a bit slow at sending them in will not take as long this time.

A few farmers have expressed an interest in the Bill for Conservation and Wildlife and Nature 1999. For your information this Bill will be presented for reading at Leg. Co. at the end of April and ExCo at the end of May. If you have any queries or are simply not happy with the Bill, you are advised to contact your Councillor as soon as possible. Once the Bill has gone through you won't be able to do much about it!



WARNING: "Tight underpants can adversely affect fertility".

THIS MONTHS CONTRIBUTORS

Aidan Kerr	Snr. Scientist	Gordon Lennie	Snr. Laboratory Technician
Cameron Bell	Veterinary Officer	Tex Alazia	Farmer, Port Edgar
Nigel Knight	Farmer, Coast Ridge	Robin Thompson	Beef Specialist
Danny Donnelly	Farmer, Crooked Inlet	Sean Miller	Sheep Nutrition
Mandy Heathman	Chief Nursing Officer	Richard & Toni Stevens	Farmers, Port Sussex

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SHEEP AI IN THE FALKLANDS: THE HIDDEN COSTS AND QUESTIONABLE RESULTS

by Cameron Bell

There is generally a lack of understanding of the costs of sheep artificial insemination (AI) in the Falkland Islands, particularly with respect to the current 'system', i.e. small numbers inseminated on farms in various locations.

Generally, the results have been average, with a mean conception rate of 51% (calculated by proportion of inseminated ewes lambing) and lambing percentage of 64% (1989 to 1998 excluding 1994). These results are 'accentuated' particularly when small numbers of ewes are inseminated (which has generally been the case in the past), e.g. there is apparently a big difference in conception rates for 2 out of 6 ewes conceiving (33%) on farm A, and 4 out of 6 ewes conceiving (67%) on farm B. Further, too much reliance in the past has been placed on AI (as well as small, private stud flocks) as being the 'solution' to sheep genetics, instead of considering selection accuracy (subjective as opposed to objective), selection intensity¹, potential for inbreeding² and generation interval³.

The following calculations estimate the cost of producing a single ram hogg to first shear from AI. The costs are based on the actual cost in 1998.

Item	Cost per ewe inseminated
Semen cost	£14.00
Semen freight & insurance	£12.00
Drugs	£3.50
Vet Fee	£4.50
DoA travel costs	£4.82
DoA labour costs (vet and technician)	£22.35
TOTAL COST OF INSEMINATION	£61.17
Allowance for lamb/ewe feed/misc. vet costs	£5.00
COST FOR EACH LAMB REARED (assuming 100% lambing)	£66.17

Assuming 50% conception rate (average for 1989-98) and a loss/cull rate of 25% (birth to hogg), the cost per hogg is:

$$= (£66.17 \times 100/50) \times 100/75 = £176.45$$

¹ Selection intensity is the proportion of animals selected for breeding

² Inbreeding is decreased in larger flock sizes, however very high selection intensities can also increase inbreeding

³ Generation interval is the average age of breeding animals at the birth of their offspring

Assuming a sex ratio of 50:50, 2 lambs must be produced to get a ram lamb:
=£176.45 X 2 = £352.90

i.e. to produce a ram hogg to first shear from AI, the cost involved is approximately £350

This figure does not account for farmer's time (selection of ewes, synchronisation, etc) or other costs incurred during the insemination and rearing period.

Ultimately, AI ram hoggs are of unproven/unknown quality. Unfortunately, there seems to be a common tendency amongst Falkland farmers to feel compelled to use AI rams, even if they are sub-optimal, simply because of the costs and effort outlayed. This is particularly the case, for example, when 3 lambs have resulted from AI and one is a ram.

Considering these cost estimations, inseminating small numbers of ewes is consuming of both time and finances (farmer's and Department of Agriculture) and produces unproven progeny. This is certainly not a cost-effective procedure, and is a questionable practice when one considers the current rural economic situation. Further, the present difficulty of purchasing small supplies of semen straws from Australia/New Zealand and associated importation costs compounds the problem. This is not to say that AI won't have a place in sheep breeding in the Falklands in the future: AI of large numbers may play a role in future 'group breeding programmes' or 'stud flocks'. However, for money spent and gains made, AI of small numbers is not a wise investment.

Sheep AI 1999

Despite what has been said, there may be people with semen straws remaining that want to use them this year. Please contact me (Cameron Bell) immediately upon receipt of this edition of Woolpress, as May is not far away.

DIDDLE-DEE, WYOMING AND PINOCCHIO - THE MYSTERY DEEPENS!

By Aidan Kerr

Thanks to Peter Robertson at Port Stephens for adding an American dimension to the mystery. In response to the article in last month's edition, Peter rang to tell me about comments made on our important shrub by two visitors to Port Stephens from Wyoming, USA. On getting out of their diverted islander aircraft on the Stephens' airstrip they recognised the plant as one they knew in Wyoming and to Peter's surprise (and now mine!) called it the same 'Diddle-dee'. So armed with this new American connection I searched the Internet for further information only to be reminded that the name is part of the title of the famous Disney song from Pinocchio 'Diddle dee dee - a sailor's life for me!' If anyone can shed any further light on this mystery please let me know.

'EYE IN THE SKY' - A PHOTOGRAPHIC AERIAL SURVEY

By Aidan Kerr

What were you doing outside on Saturday 6th or Sunday 7th March in Stanley, Fitzroy, Saladero and Fox Bay? We will soon have the proof when we get our special films developed and printed. However as 2,000 feet was the lowest height at which the photographs were taken in the aerial survey then we probably won't be able to see whether your bikini was actually pink with spots or whether the sheep was smiling! So that's what that red Twin Otter of the British Antarctic Survey was doing in the skies a few weekends ago!

Seriously though, we couldn't have done it without BAS's help and we nearly didn't! When their plane was accidentally damaged in the Antarctic recently our survey project almost crashed too, as part of the resulting 'domino effect' which was felt up and down the Atlantic. I thought then that all our preparations over the last 6 months had all been in vain. In the end our project was postponed for a few days. Spare parts were scavenged off the Twin Otter here to repair the damaged one 'down south'. On top of this, BAS's aerial photography specialists, Michelle Gray and Adrian Fox were one hour from heading to Brize Norton to catch their Tristar south to meet Geoff Porter and the Twin Otter with the special camera here. They were told to wait until the next Tristar. The project all depended on getting new parts from Canada on to that same Tristar and to BAS's credit, Michelle, Adrian and the parts all made it.

Then to cap it all, Saturday morning was one of those slow moving foggy days here and after several coffees and curses in the control tower at Stanley Airport our former FIGAS pilot, Captain Geoff Porter, sent us home to wait for clearer skies. By about midday a 'bit of blue sky' did appear over Fitzroy, Saladero and central West Falkland and we were airborne.

Within minutes of being airborne Adrian and Michelle checked that the expensive, 100 kg in weight camera, specially mounted vertically in the fuselage, was working properly. They also loaded one of four 25 kg magazines containing the special aerial film which was up to 80m long and 24 cm wide. All seemed to be going well as we flew over Stanley and I tried to photograph my house with an ordinary camera. Then someone smelled fuel and we had to put down again for safety's sake. Nothing serious - some residual fuel in the pipe had leaked out.

After some quick repairs by BAS's expert mechanics we were airborne again. The clouds had begun to reform over the Fitzroy area so we headed for Saladero. Adrian and Michelle's carefully prepared flight lines on 1:50,000 maps enabled Geoff to roughly line up the first runs over the Department's farm. As Adrian navigated Geoff into the exact line using the cross-haired periscope we passed over the coast and the camera clicked into action. Meanwhile Michelle logged the shutter speeds, air temperatures and sortie numbers etc. Bombs away!

After sucking hard on the oxygen supply I realised that I wasn't on the 'dam-busters' raid and that my fantasy had been due to the lingering stink of fuel and temporary lack of oxygen nearly three miles up. This didn't seem to worry my well practiced colleagues. After all, they had flown and clicked together many times this summer over the frozen and often featureless surface of Antarctica. I think they were more worried that I would black out and not be able to prioritise the flight lines as time pressed us. My pride was restored when the others in turn reached for the oxygen too! They later admitted that photographing our vegetation was a much more pleasurable and eye-catching experience.

Before the clouds got too thick we completed several flight lines over a 'triangle' between Fox Bay, Chartres and Coast Ridge which gave us a range of coastal, low land and hill land vegetation. We also photographed the Tussac on Calista and Wedge Islands in Falkland Sound. By this time Geoff reckoned the clouds were thickening fast and that we'd be better trying again the next day. On the way back we were fortunate to photograph the grazing trial near MPA.

Sunday morning was much clearer and we photographed most of our target lines over an area from Port Harriet west to Colorado Pond and south to Bertha's Beach at a range of heights between 2,000 and 15,000 feet. Just

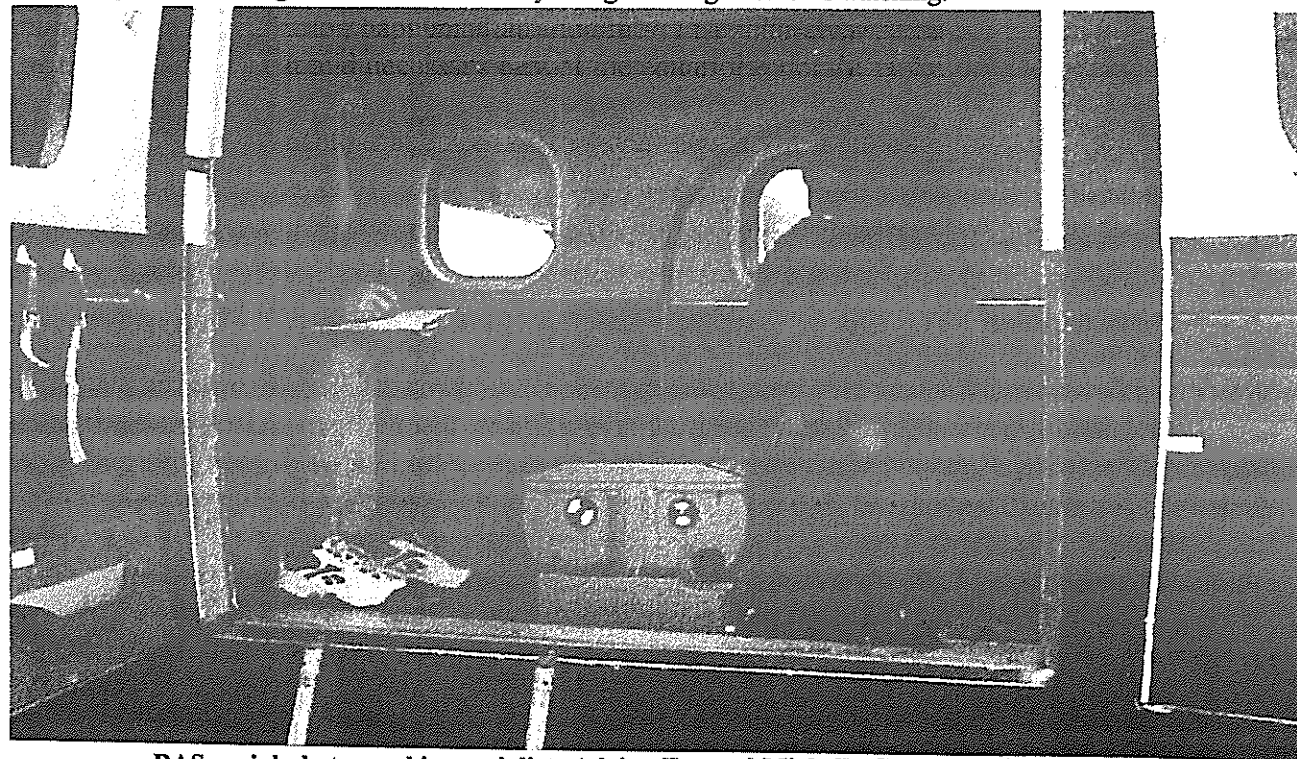
before we landed we 'shot' a few of Stanley just to finish off the films. Overall we took over 500 photos in Black and White and Colour of a range of vegetation types. Why? There are several purposes.

Firstly, using the high quality colour prints along with records of the plant cover will enable us to 'ground truth' recent satellite images of the land which are in 'false' infra-red colours e.g. Tussac is red and bare surfaces are blue. The 'Landsat' satellite flies over the Falklands about every three weeks and with processing technology advancing so rapidly, good images should become more readily available and cheaper. They will enable us to produce accurate maps of the vegetation which could benefit all those interested in managing and developing the land and other rural resources. It would be much less tedious and expensive than trying to map from photographs alone or by a full survey on foot. William Davies produced the only vegetation map of the islands from horse back in 1939. The current Ordnance Survey maps were produced from black and white photographs of the whole islands flown in 1956. A team of ODA scientists in UK produced a map of the land systems in 1969 using those photos and an analysis of soil samples from selected areas. While these were useful in their own right they need updating for future land users. With BAS being the only civilian providers of such capability in the South Atlantic we thought we'd better take advantage of their one-off special offer as soon as we could. Thus the first aerial survey for civilian purposes since 1956 was initiated.

Vegetation maps could help farmers plan new fences much easier and match stocking patterns and densities to the livestock carrying capacities of the vegetation. This may avoid over and under grazing and improve animal production and profitability. New owners or managers of farms over the next few years may find that such a 'tool' allows them to fully assess the potential of their new grazing resource. Changes in vegetation due to grazing pressure, burning and climate change could be monitored more easily on a larger scale than before and over many years. Future management could then be adjusted.

The photographs, images and maps may also help us identify important areas which need special management e.g. more fertile cropping areas, sources of calcified seaweed or shell sand and areas containing plants or animals requiring improved conservation. With fast advances in user friendly computers the maps will complement this Department's 'Whole Farm Planning' process and future diversification initiatives. They will also help FIG and others develop Geographic Information Systems (GIS) within the islands.

I hope to have the films processed very soon and have some prints available before the end of the year depending on finances. Some prints will be for sale to the public at reasonable rates to help recover some costs. Those people 'caught red-handed' on film will of course have to pay more! Finally, thanks to all the BAS personnel involved both here and in UK, to the Civil Aviation Department and flight controllers at Stanley ('Fred') and MPA and to Chelsea Parsons and the community school for use of the essential dark room for loading and unloading the films. A final scary thought - 'Big Brother is watching!'



BAS aerial photographic specialists Adrian Fox and Michelle Gray checking the special camera in the 'Twin Otter' before take off.

SULPHUR DEFICIENCY IN FALKLAND ISLAND'S PASTURE

By Gordon Lennie

Sulphur is the most important plant nutrient supplied by the rain. Some is also deposited or absorbed directly from the air. Industrial pollution deposits most of the sulphur sufficient to supply all crop's needs.

It is likely that the Falkland's soils are only receiving < 5 Kg S/ha, making the peaty soils susceptible to a deficiency in sulphur.

Grass requires sulphur to make amino acids which in turn are needed to form plant protein. Sheep in turn require the protein for energy and wool production. The wool itself contains cystine (a sulphur containing amino acid) and its rate of growth is directly linked to protein intake. If sulphur becomes deficient in the soil then the amount of protein the grass can synthesise is limited.

The nitrogen-sulphur ratio in grass can be used to predict potential yield response to applied sulphur. If the N:S ratio exceeds 13:1 then a response in yield is likely by applying a sulphur - containing fertiliser.

In the UK, trials have demonstrated an increase in herbage output of 10-30 per cent , mainly occurring in the latter part of the growing season, through applying only a light dressing of Sulphur (20-30Kg/ha) as Gypsum (18%S).

Analysis of some native Falkland grasses has shown quite a high N:S ratio and does indicate a low sulphur status in the peaty soils found in the Falklands.

Species	% Sulphur	% Nitrogen	N:S ratio
Whitegrass (<i>Cortaderia pilosa</i>)	0.078	1.518	19:1
Hair grass (<i>Deschampsia</i>)	0.040	1.44	36:1
Land tussac (<i>Festuca Erecta</i>)	0.060	1.64	27:1
Cinnamon Grass (<i>Hierochloë redolens</i>)	0.056	1.93	34:1
Tussac grass (<i>Parodiocloa flabellata</i>)	0.021	1.58	75:1

Average levels of Sulphur in grasses normally range from 0.20-0.40 % and as you can see from the table all of these grass species are well below this range.

The main symptoms of Sulphur deficiency in grass include reduced growth rate, stunting of growth and yellowing of leaf tips. All of these symptoms combine to reduce total grass production.

In Australia and New Zealand , sulphur deficient soils are treated with superphosphate (which supplies Phosphorus 8% and Sulphur 13%) or Gypsum (18% Sulphur).

The use of Sulphur fertilisers are , in many cases, essential for large yields.

FITZROY SHEEP SHOW

Just a reminder about the show. It will take place at Fitzroy on Saturday 10th April, classes are the same as last year and are as follows:

- Class 1 Mature ram, over 24 months of age.
- Class 2 Shearling ram, over 12 and under 24 months of age.
- Class 3 Ram hogget, under 12 months of age.
- Class 4 Mature ewe, over 24 months of age.
- Class 5 Shearling ewe, over 12 and under 24 months of age.
- Class 6 Ewe hogget, under 12 months of age.
- Class 7 Pen of three flock hoggets, male or female, under 12 months of age.
- Class 8 Pen of three flock shearlings, male or female, over 12 and under 24 months of age.

Champion ram: selected from classes 1, 2, & 3.

Champion ewe: selected from classes 4, 5, & 6.

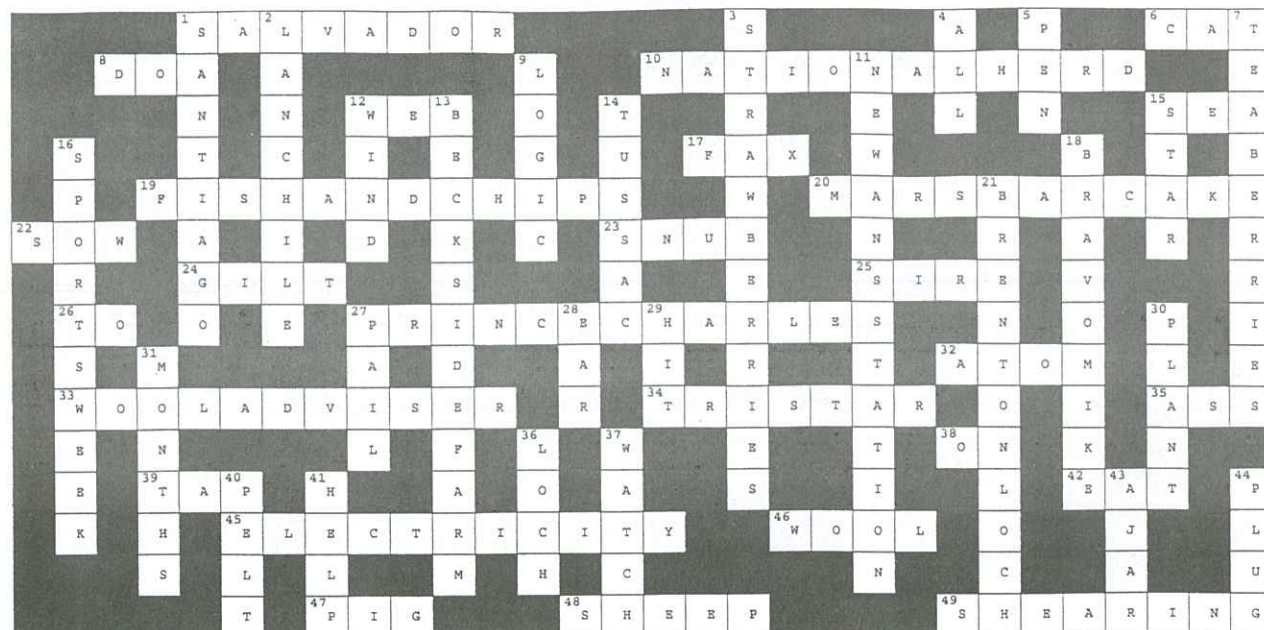
- *Sheep to be penned by 10 am.
- *Judging will commence at 10 am.
- *Prize giving will be held at 1 pm.

Please note : All times are camp time.

So that pens can be arranged it is most important that all entries are in by 2/4/99.

Please ring or fax the Farmers Association Office to make your entries.

LAST MONTH'S ANSWERS TO THE CROSSWORD



BRENTON LOCH OPEN DAY & POLWARTH NATIONAL RAM SALE DAY

This year I thought I would get you, the farmer, to give your views and comments on the two very successful days at Brenton Loch and Saladero.

From Nigel Knight of Coast Ridge Farm

The morning of the 17th March on West Falkland was calm and bright, this was particularly pleasing to West Falkland residents embarking on MV Tamar FI from Port Howard to Saladero. We were all on board after negotiating the rope ladder by 7 am. Shortly after we cast off and headed out through the narrows into the Falkland Sound. The trip across from West to East was idyllic sunshine, a calm sea and good company, the hills and mountains of the West gradually receding as the Wickham Heights and Plains of Lafonia came clearer into view. Some two and a half hours later we dropped anchor in Hope Place and went down the rope ladder again into the sea truck and sailed the short distance across to the shingle beach overlooked by the ruined stone buildings at Saladero. Transport soon arrived for us and we were quickly taken to the woolshed. After quick refreshments we were handed plans of the sites and an observation test to fill in on the way round the winner of this Competition would get a years subscription to a farming magazine. We then re-boarded the landrovers and set off to view the eight displays dotted around Saladero and Brenton Loch.

The first site we visited was No. 7; the Shelterbelt site. The first thing to strike me was the size of the site and the amount of work that has already gone into establishing the trees that have been planted. 7250 trees had been planted; after a great deal of preparation. The majority of trees were Alaskan Lodgepole Pine, although there were some Skeena River, Lodgepole Pine and Macrocarpa. In smaller numbers were Austrian Pine, Southern Beech and Radiata Pine. The most successfully established trees seemed to be the Macrocarpa, locally grown by Ali and Marlene at Shallow Harbour.



The next site we visited was No. 5; the spraying equipment, direct drills and spray test results. We first looked at a direct drill, this was a Truax made in the U.S. Its most noticeable features were its triple disc action. The first disc with a serrated edge cut the ground this was followed by twin discs that planted the seed and applied fertiliser in the same slit. This slit was then closed by a independent press wheel aligned to the individual planters. Its ability to closely follow uneven ground soon became apparent when the machine was towed a short distance. Although we did not see it operate in trash covered ground I would imagine it would cope a lot better than the normal tined drills. Next we looked at a boom spray that fitted on the 3 point linkage. This was made by Redball another U.S. make. Its most noticeable features were its shrouded boom and foam markers. We also looked at a wick wiper similar to the quad weed wiper but instead of a single wiper it has multiple overlapping wipers. After this we looked at some plots that had been sprayed some time ago. The herbicide had killed the grass, but the dead herbage still remained to prevent new seed from flourishing.

The next move was on to the cattle yards at site No. 1. There had been a number of additions since I last saw them, most noticeable was the roof built over the working area at the cattle crush, this has greatly improved the working environment in the area. There was also a more sophisticated crush which enabled cattle to be worked on much more easily. In the pens were a few cattle amongst them was a cow and calf to guess the weight of. The calf was a Angus cross and looked very solidly built. As we moved around the sites we saw many similar calves with their mothers. Also in the pens were some portable cattle yards complete with crush. These were made of aluminium and consequently reasonably light to handle, Falkland Land Holdings owned these and had them on display.

From the cattle yards we went on to site No. 6 which was the new ditcher imported by Richard Stevens/FIDC. We did not see it working, but did see work that has been carried out recently. I have to say that I was somewhat disappointed by it. The ditch that has been dug was clear enough and the soil has been thrown well clear but the ditch that remained was a death trap for sheep and impossible to cross when gathering with wheeled transport. It also looked very difficult to operate as the machine was mounted on the 3 point linkage so that the tractor has to straddle the existing ditch. Once you started ditching the, only way to go was forward, if you came across a sharp bend or a pool that the tractor would not straddle then I imagine you were in big trouble with nowhere to go. I would also hate to think what would happen if one of the rotating wheels hit a submerged rock or other solid object.

As it was now barbecue time we made our way back to the woolshed where Lilian, Glynis and Sarah were producing stacks of succulent barbecued meat, whilst this was going on Robin and Sean were demonstrating their feed block making machine. First the ingredients were mixed together in a concrete mixer after which the mixture was poured into a home made hydraulic press, this machine compressed the mixture into a solid block which was durable and suitable for storing. Estimated costs were around £3 for the home made block compared with around £12 for a similar imported block.



After a mid-day feast we moved on to the direct drilled pasture site No. 3. This site showed ground that had been rotavated, then the trash had been burnt off and this had been followed by double direct drilling. The best results were in the lower damper ground, the grass gradually thinning out towards the drier sides of the site. Where a track had been rotavated through the site some years ago, spectacular results were apparent; much better than anywhere else. Also at this site were various legumes that had been grown in pots in Stanley. These showed a good cross selection of legumes that may have potential in the Falklands. Alongside these exhibits was another direct drill belonging to F.L.H., this was a U.K. made drill but instead of discs it has tines which meant it could not deal with any amount of trash. Also the press wheels were on a solid axle and not independent which meant that they could not tolerate uneven ground.



We then moved on to site No. 4 which had three types of grasstopping machinery on display. We first saw Philip Miller's Case Tractor operating a Bomford 1700 flail mower, this seemed to be doing a good job although the trash would probably need removing in heavy growth. Where there was thick Diddle Dee or matted Whitegrass even Philip's 90hp tractor was making hard work powering it. The slasher was certainly the best machine for chopping off material above ground and seemed to be leaving the least amount of trash, the only drawback seemed to be the power requirement, the F.L.H. 7610 was struggling in thick growth. Another machine on display was the Mulcher, this seemed the easiest to power of the three but probably removed the least material, even so it seemed to leave behind quite a lot of trash. The last machine to look at was a Shelbourne spreader. I was quite impressed with this, it was trail powered hydraulically and had a



twin spreading mechanism. It also had an adjustable feed gate fed by a bottom conveyor belt. Although we did not see it operating it, looked as if it would handle most materials from granulated fertiliser to dry sheep manure and calcified seaweed, the hopper on this model would hold 5 tons of granulated fertiliser.

The last site No. 2; the alternative electric fence materials. On show here was plastic posts and toppers for electric fencing. The droppers in black plastic I thought were very good, light in weight, durable, easy to fasten to wires and very cheap. I did not think the posts were as good as the 2.5mm HT wires had enlarged the holes quite a lot so I'm not sure how long they would last. Also on display were white plastic posts for strip grazing, these were light and durable but rather flimsy and I think has limited uses.



This last site ended all the displays and we were all able to complete our competition sheets, from here most of the Easters went home whilst the Westers either went to Town or stayed in Goose Green. Many would return to Saladero the next day for the Ram Sale, but that's another story.

Overall impressions were the scale and diversity of projects on trial; everything from genetics to grassland improvement, blockmaking to beef production and shelterbelts to sheep breeding. The Agricultural Department have certainly carried out a lot of work at Saladero/Brenton Loch and are to be congratulated.

Thanks go to the Agricultural Department staff for putting on such an excellent day, including the drivers which in our case was Owen, also to the cooks for the mid-day meal, the input from F.L.H. including tractor drivers. Last but not least many thanks to the crew of the Tamar FI for looking after us on the trip over.

From Marlene and Ali Marsh, Shallow Harbour farm

After a four hour drive by rover to Many Branch farm on the evening of the 16th, we caught the Tamar FI from Port Howard at 7am next morning for Brenton Loch. The weather couldn't have been better and after a calm trip across the sound we were met at Hope Place beach by several Department of Agriculture staff.

During the course of the day we visited all the sites that had been organised for us from cattle yards, machinery, trees and grassland trials. Sarah, Glynis and Lilian provided us with an excellent barbecue lunch.

Late in the afternoon we travelled into Stanley for the night, and next morning we met at the Department of Agriculture at 8am for transport to the Ram Sale.

The auction started at 12 O'clock and the first 10 were sold under the familiar auction sale. We then had a break for yet another excellent barbecue, following this the remaining rams were sold under a new system to us called the Helmsman sale with all interested in bidding being given a number and having 3 minutes to outbid anyone on any ram they liked. This proved to be a very popular way of bidding. Prices ranged from £20 for 8 rams to £175 for 1.



Once the sale was over the Westers were driven back to the beach along with their purchased rams for their return trip across the Sound. After spending Thursday night at Many Branch we returned home on Friday with a rover load of rams.

We would like to thank all the members of the Department of Agriculture concerned for two well organised and most interesting days and the unforgettable send off from Lucy and Gillian, anyone would think they were pleased to see us go! Also many thanks to the Tamar FI crew for all those sandwiches and cups of tea as well as getting us safely across the Sound. We know how much you enjoyed having us on board! A big thank you to Shirley, Bill, Caroline and Ken for the night roasts.

From Danny and Joyce Donnelly of Crooked Inlet Farm:

The Farm Open Day for us this year began from Port Howard when the Tamar picked everyone up at 7 o'clock. The morning being calm and warm, we arrived at Saladero about 11 o'clock to find members of the Agricultural Department with rovers to take everyone to the shed for coffee and meet up with farmers from the East. The Open Day began with tours of the various trials which were most interesting.

Grassland Improvement and the direct drill reseed was of particular interest and will be a great asset to the stud flock and beef unit in the future. The cattle yards showed the different types of uses and crushes. The Angus calves were much admired by all.

The Ram Sale went off very well and we came home with two new rams. We would like to thank the staff at the Agricultural Department for two great days.

From Richard and Toni Stevens of Port Sussex Farm

People would be forgiven for thinking the Sioux Nation had risen again on the Darwin Road as the dust clouds billowed from the many vehicles bombing out to the Agricultural Department Open Day. Although I'm sure the intention was for an orderly procession in manageable groups at Brenton Loch and Saladero, the reality was different. Vehicles scattered like chicks from a hawk. There were rovers charging hell west and crooked.

Following the leader we first encountered the new cheaper fencing which had been erected. Some of the plastic battens had bent on a rise where the weight of the wire pulled them down. Later this demo was somewhat ruined when a belligerent bovine - seen chewing its cud- ambled over the fence.

Fortunately at one of the trials the large spreader was taking the combined mental strength of a dozen farmers to fathom out how to shower half a dozen at the back with fertiliser. This feat took a little while allowing interested people to home in on the tractor activity from every known direction. As Gerald Morrison drove into the distance fertiliser flying, interest moved to blade flail mowers, mulchers and rotavators all designed to flatten Diddle dee and other vegetation.

Philip Miller was demonstrating a flail mower but with a distinct smell of burning after one strip this trial came to a halt. People were trying to investigate the problem, lying under the machine. Eric Goss offered words of caution when working on PTO driven machinery with the tractor engine still running.

Many farmers wanted Gerald Morrison (who had moved up to demonstrate machinery with Philip) to try the blade slasher in the white grass - the F.L.H. 7610 which has a new engine died, stalling in this heavy going white grass.

Most farmers felt that all the machines had merits but only a very powerful tractor would get the best out of this equipment.

There was a lot of large spraying machinery in the area of last years spraying trial. These machines could certainly spray a large area. The one failure that I could see is the apparent need to get clear water. Not very handy if you are working a good distance from home.

At this point an Agricultural Department vehicle started rounding up farmers and heading them towards the barbecue. It was at this point that it became clear how well attended the open day was. Councillors Luxton and Clifton were also on hand to witness this interest in the future and no doubt hear the fears of many, at this difficult time.

The Barbie was a great success and most people were in groups discussing farming matters. Others were having a thorough look round the shearing shed. I noticed Arthur doing a private tour of the facilities for some, that ended in the little room by the toilet. Sadly I wasn't a member of this happy, exclusive little band!

After a memorable speech by Bob thanking all and sundry and explaining how it was exciting times in agriculture and wool was going down the pan, we all watched a feed block demonstration - sods law dictated that the first block out was going to be a disaster but the 2nd made us all think that the first had been a deliberate mistake.

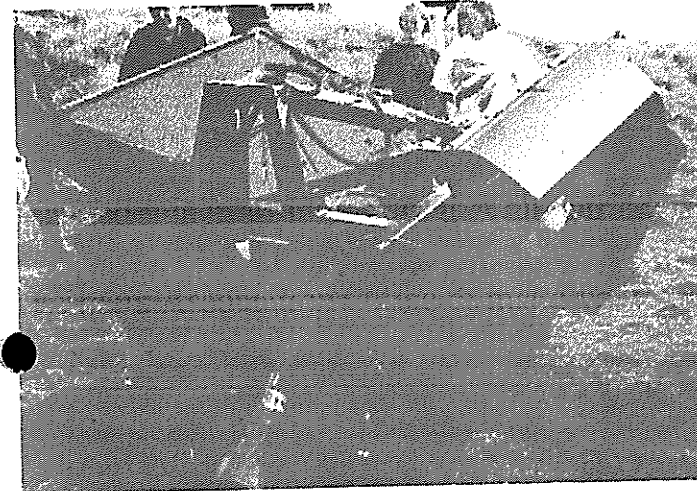
The shelter belt programme was next on our agenda and people strode up the furrowed ground with an array of comments and opinions. To my unscientific eye the good old Macrocarpa was head and shoulders above the other trees.

The ditcher was the penultimate thing we viewed as No 6, but most people had seen this first and so there was no proper debate and sadly no trial with the available tractors to demonstrate the different strategies of this machine.

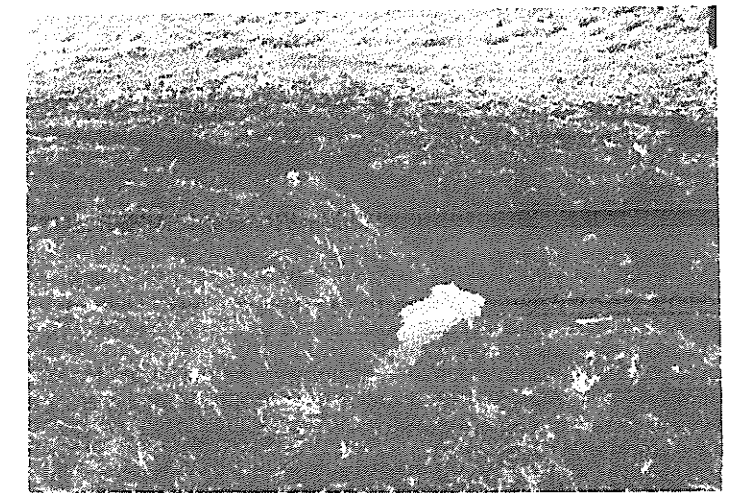
Last of all were the Aberdeen Angus calves and I was impressed by these stocky critters. There are a few farmers who would also like the corral and crush - but then Rome wasn't built in a day.

Everyone had plenty of food for thought even if it was just generated in conversation with someone on the day. We rounded the day off with a trip to the end of the road Mike McKay and his gang have started towards North Arm. Cobbs Pass thankfully is a problem of the past. We headed for home wondering how the Agricultural Department managed to pick such a perfect day.

Index of Photographs: 1. Shelterbelt showing an insert of a Macrocarpa grown at Shallow Harbour. 2. The BBQ girls, Sarah, Glynis and Lilian. 3. The direct drill pasture site showing the effect. 4. FLH's 7610 tractor pulling a slasher. 5. Case tractor operating a Bomford Bandit 1700 flail mower.



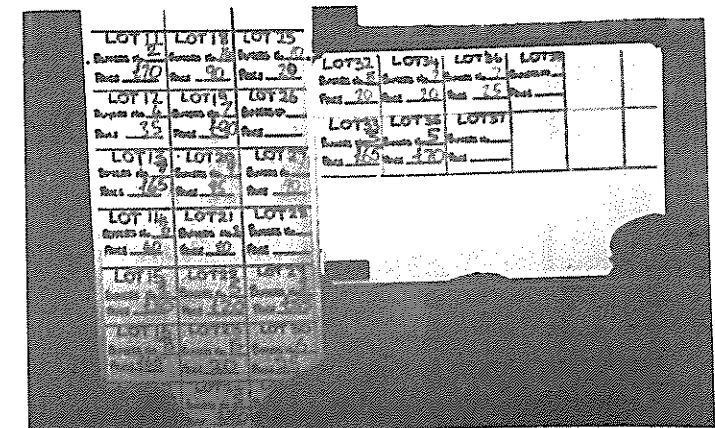
Richard Steven's ditcher.



Ditch left from the ditcher.



Ilene Jaffray and Lily Napier examining Legumes.



The Helmsman auction board.

THE FEED BLOCK RECIPE

By Sean Miller

After a few requests for the recipe we were using to make feed blocks at the Open Day, here it is in full.

Ingredient	Quantity (per 25 kg block)
Calcium hydroxide	1.8 kg
Molasses	5 kg
Molasses meal	7.5 kg
Fishmeal	3.75
Salt	2.5
Urea	2.5
Magnesium oxide	1.25
Water	1 litre

This recipe is one we've developed for the cows grazing at Brenton Loch. For sheep, I think we'll make a slightly different block as the needs of sheep will be slightly different from those of cattle. We are waiting on results from blood and faecal samples (and our diet studies) we collected during last year so we can 'fine tune' a good winter block for young sheep, and a spring/summer block for pregnant and lactating ewes. We hope to have those results back pretty soon so that we can conduct experiments to prove the worth of these feed supplements for hoggets and ewes this season.

To refresh your memory on what the basic ingredients are for; molasses (and molasses meal) is a high energy feed which attracts sheep and cattle to the blocks. Animals generally love molasses. The more you feed them, the more they want! Calcium hydroxide is the hardener. It makes the blocks set and stick together properly. It also provides some calcium for the animals. Fishmeal is another high energy feed, but it also provides lots of protein for the animals. In addition, urea provides much nitrogen which the animals make into protein themselves. We use salt to regulate how much of the feed block the sheep and cattle eat. Sheep and cattle have a natural craving for salt (you see them on the beach a lot), and increasing the salt level can entice them to eat more block. By reducing salt they will eat less. For lactating cows, magnesium oxide is a precaution against the metabolic disorder called grass tetany. We really only need magnesium for cows at this stage.

Because feed blocks are made from dry ingredients, we can add just about anything to them at the mixing stage to 'plug the gaps' that sheep and cattle are experiencing when it comes to finding the right nutrients in what they eat. Trace elements and vitamins, whilst generally in high quantities in the things we are using anyway, can be put in as well if they are needed in some places and not others.

There are a couple of critical points which help making the blocks a success. Firstly, get the order of mixing right! Yeah, I know, I forgot at the Open Day and baked a crumble instead of a block! But we got the second one right. It is important to mix the urea with the liquid molasses and water first. Urea is thirsty stuff and if it's just chucked in with the other dry ingredients it absorbs a lot of water and the block ends up too dry to set properly. Secondly, all of the ingredients need to be thoroughly mixed, so a few minutes in the cement mixer before adding the molasses/urea/water is essential. And finally, pressing the blocks really adds the finishing touch. A bit of pressure makes all the difference in producing solid blocks that resist weathering and which allow the animals to 'lick' the block rather than chew it.

Over the next few months we'll report on the progress of the experiments and provide some updated recipes so that you may get into the act yourselves. In the meantime, don't hesitate to give us a call if you want to know anything at all about feed blocks.



Farmers standing around Sean watching how the blocks were made at the Open Day.

K.E.M.H. ARE ALWAYS READY TO LISTEN

By Mandy Heathman, Chief Nursing Officer

Who won the competition then?

Wednesday 17 March was a real treat of a day. Keith, Abbie, Sally and I came to your Agricultural Open Day and enjoyed ourselves. There was lovely weather, enjoyable company and interesting displays to see. We await the results of your competition with bated breath.

The Medical Department added a small display to the great presentation by the Agricultural Department. Hopefully we will extend this in the future, now we've seen the props!

We wanted to raise your awareness of some of the resources available to you through the department. The doctors see you regularly on their camp visit programme but we would like to offer more than this to you so.....

Are You Sitting Comfortably.....

The title of a series of booklets from the Arthritis Research Campaign. If you have chronic aches and pains or difficulty with some jobs we can make these booklets available to you. Along with the booklets we can offer support from the district nurse, who can liaise with the physiotherapist, to help you with adapting your environment to make your life easier. There are many simple adaptations on the market for turning on taps, opening tins, sitting more comfortably and generally aiding daily living.

The district nurse is Rachel and a visit can be arranged to look at your home to help or advise you. The number is 27328 and leave a message with the reception staff. Living out in Camp will mean that access from the district nursing is limited but it is still available and can enable you and your family to live a little more easily.

Are You Listening.....

Talking and listening is an equation happening all the time. Listening always seems the passive part of the process yet it is a difficult and necessary part of the equation.

Another series of booklets available is about emotional and mental health needs. These are available for you to read and make use of. The department also has a counsellor who is available to support and listen to you if you feel that this would be of value. You can contact Emma on 27420 and leave a message on the answerphone. On the whole, all of us have the answers to our emotional or mental health needs. It sometimes is helpful to have someone structure the listening so that we can climb over, or around, the hurdles that we face.

The greatest support for all of us is all around us in the friends, families and neighbours that we have. All of us can give each other the time and space to find the answers if we remember to listen actively. It is important to ask for someone to listen so that they can use their listening skills when you are talking, also to take the initiative to call others and ask them if they need to be listened to. A problem shared at least keeps it in some proportion.

So..... my number is 21116, what's yours?

Winner of the Brenton Loch and Saladero Open Day competition was Marlene Marsh of Shallow Harbour.

WOOL SUBSIDIES

By M. Alazia, Port Edgar Farm

We are very optimistic about the Incentive Scheme. We appreciate the financial help which we are presently receiving, and which we have previously received. We are also grateful for all the work that has gone into drawing the scheme up. But it is the present wool prices, along with the population drain from camp, in particular the West, which is also worrying other farming friends.

If we think we are hard done by this it is nothing compared to the majority of sheep farms with half the number of sheep than us, i.e. 4-5000. This is because many of the overheads are the same for a unit with 4,000 sheep as one with 8,000, things like insurance on farm buildings, machinery, fuel, postage and telephone etc.

So what is to be done? As a long term solution I have never been in favour of a subsidy per kg. I think this allows the fatter cats (larger farms of which I include ours) to get fatter, while the thinner cats get thinner. To prove the point I could produce accounts that show at the time of the first subsidy per kg in 1990 we had a bank balance in the farm account of £40,000 in December. I am also definitely guilty of over-spending on personal comforts, which I would not have been able to do on a shepherds wage.

My personal views on help are:-

1. Let it be admitted that in the beginning of subdivision a major blunder was made in the sizes of farms and stock numbers.
2. Our ancestors kept the farms going through wars, through thick and thin on a pittance that was then mostly clawed back by the absentee land owners through the farm store. How much did farm wages increase from 1946, when Falkland Islands wool sold for 16p a kilo, and 1951 when it had risen to £1.11 a kilo?
3. Government has stated there is a political need to populate camp.
4. With points 1, 2 & 3 in mind, original farm prices were way over the top, and if subdivision was only to be started now, what price would a farm be with 2,000 sheep? Farm mortgages were reduced by 25% in about 1993. Given the situation since then and the fact that interest rates are below 7%, a further mortgage reduction of 25% should be implemented along with a cut in the interest rate.
5. Thought should be given in some way to camp trusteeship; paying the people who are looking after our so called 'great asset' the camp. An amount that would supplement the wage of the dwindling farm worker and the owner/occupier alike. As a trade off some conservation work may have to be undertaken, e.g. counting penguins, protecting rare plants etc. with strict laws and heavy fines for littering, unauthorised burning etc.
6. Financial rewards are, I believe, just coming into force in the UK for relatives looking after elderly in the home. The same should be recognised here in the case of the unpaid work by mothers of children under hostel age. The travelling teachers are great, but the

fact remains that a farmers wife doesn't really have the option of swapping maths for outdoor PE on a nice day and has to work around a set time-table, and set radio lessons. With 2 children this may amount to up to 4 hours a day teaching and supervision, all of which is totally unpaid.

7. Interest on prepayment of VAT, ocean freights and SGS tests costs us 3p a kilo clean. This is money lost to the Islands, unless Falkland Islands Government could pay this up front with repayment made with the wool sales from each farm.
8. If wool is never to recover to its former glory, then we are well overdue an article or report on the abattoir and what every farmer could receive by supplying the different classes of animals to it. What is the export potential of meat processed there?
9. Let's not give any more signals to the wool manufactures that they can offer ever growing prices for a supposed 'unique niche product' knowing Falkland Islands Government will subsidise it.

RECIPES

From Glynis King

3 Fruit Marmalade

You will need:

- 1 Grapefruit
- 2 small oranges
- ½ lemon
- 1 pint water
- 2lbs granulated sugar

Cut the fruit into quarters, remove pips and place in a muslin bag. Place fruit pips and water into a pot and cook until the skins feel tender.

Cool to room temperature and remove muslin bag and place the rest of the contents into a liquidiser for about 10 seconds or less if a more chunky marmalade is preferred.

Return the liquidised mixture back to the cooker and add the sugar, let the sugar dissolve on a low heat. Then bring to the boil stirring constantly and test after 10 minutes or so for setting point.

(To test for setting place a little marmalade on a saucer and allow to cool, if the top wrinkles when you run your finger over it, it is ready, if the wrinkles do not appear then keep cooking the mixture until this happens).

Leave for a few minutes then stir before bottling. Pour into warmed jars, cover and label. Makes approximately 4 jars.

COW CONDITION SCORE AND LIVE WEIGHT OF CATTLE

by Robin Thompson

Since the cattle yard facilities have been available at Brenton Loch we have been able to monitor the liveweight and condition score of the cows. The graph below shows how condition score and liveweight have changed for both pregnant and empty cows over the past year. The resultant pattern is not unexpected – declining over winter and increasing during spring in response to changing feed quantity and quality. Both groups of cows follow a similar pattern of liveweight and condition score change over winter but diverge in early spring. At this time the available feed is of insufficient quality or quantity to sustain the pregnant or early lactating cows to the same level as their non pregnant contemporaries.

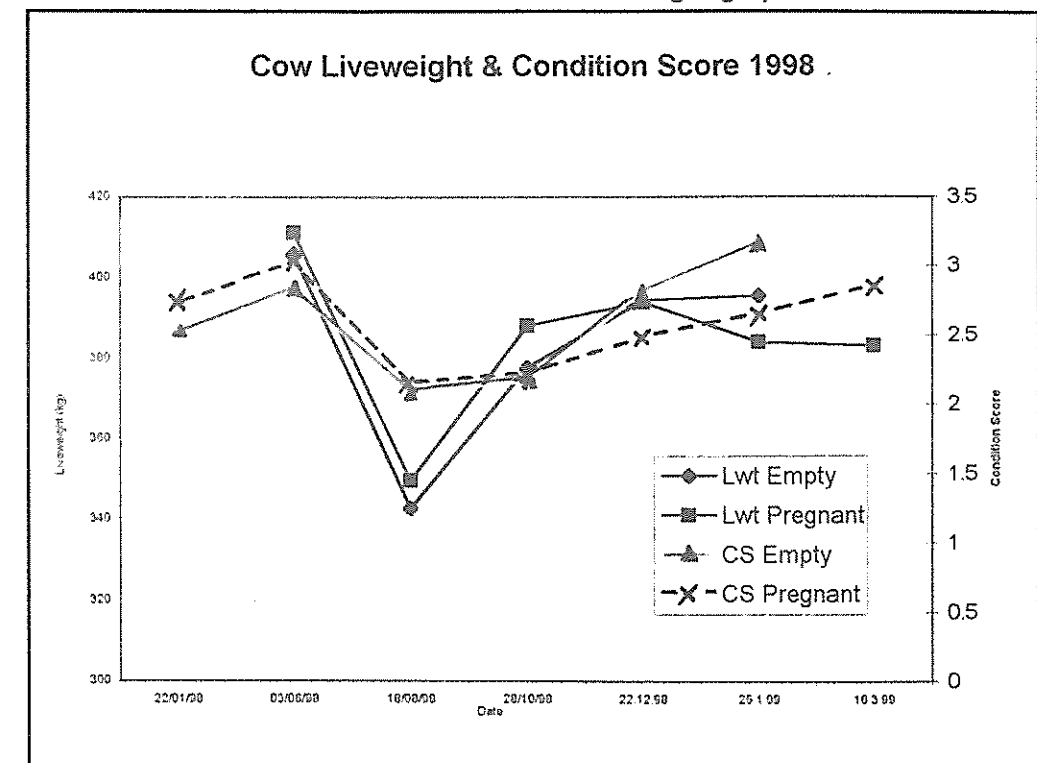
Condition score is probably more important than liveweight as a measure of an animals ability to survive. Condition score aims to assess the fat or energy reserves of an animal. An animal can be heavy because of large frame size or in the latter stages of pregnancy but in poor condition. Condition score for beef cattle ranges from zero to five respectively describing the extremes of emaciation and obesity. Half scores are often used.

The observed pattern of liveweight and condition score change is not unusual. Spring calving cows in Australia follow a similar pattern whereby stored body reserves in the form of fat is used by them to maintain themselves through winter. Such a strategy has no detrimental effect on the animals provided it is managed so as growth of the unborn calf is not compromised or the cow is not over stressed so as to be predisposed to potentially fatal metabolic disorders and low milk production. The most serious consequence of low condition post calving is reduced ability to cycle and become pregnant.

It is important to monitor animal condition score during winter to ensure it maintained within acceptable limits. Last winter the National Beef Herd was block grazed (confined to small areas for short periods) and we found about a dozen cows had insufficient body condition by mid winter. Our management strategy was to remove these animals from the main herd and give them preferential feed. This action resulted in the animals improving their condition and those that were pregnant rearing calves.

The observed condition and liveweight loss over winter is not desirable for finishing animals because it not only wastes pasture resources but increases the time for an animal to reach market specifications. Management strategies including provision of improved pastures, better pasture/animal management feed blocks and hay are all possible means of minimising winter condition loss. Of course such strategies increase production costs so the price for the final product must reflect this. In Australia beef and lamb prices tend to rise during winter or the time of slowest pasture growth and so act as an incentive for farmers to supply the market at this time.

If the abattoir trades by basing price on carcass specification producers will need to weigh animals and learn to assess condition so as to receive the optimum price for their livestock. Such management skills will be mandatory so as animal requirements and feed can be more closely matched as animal production systems intensify.



DISCUSSION GROUP

PORT SUSSEX FARM

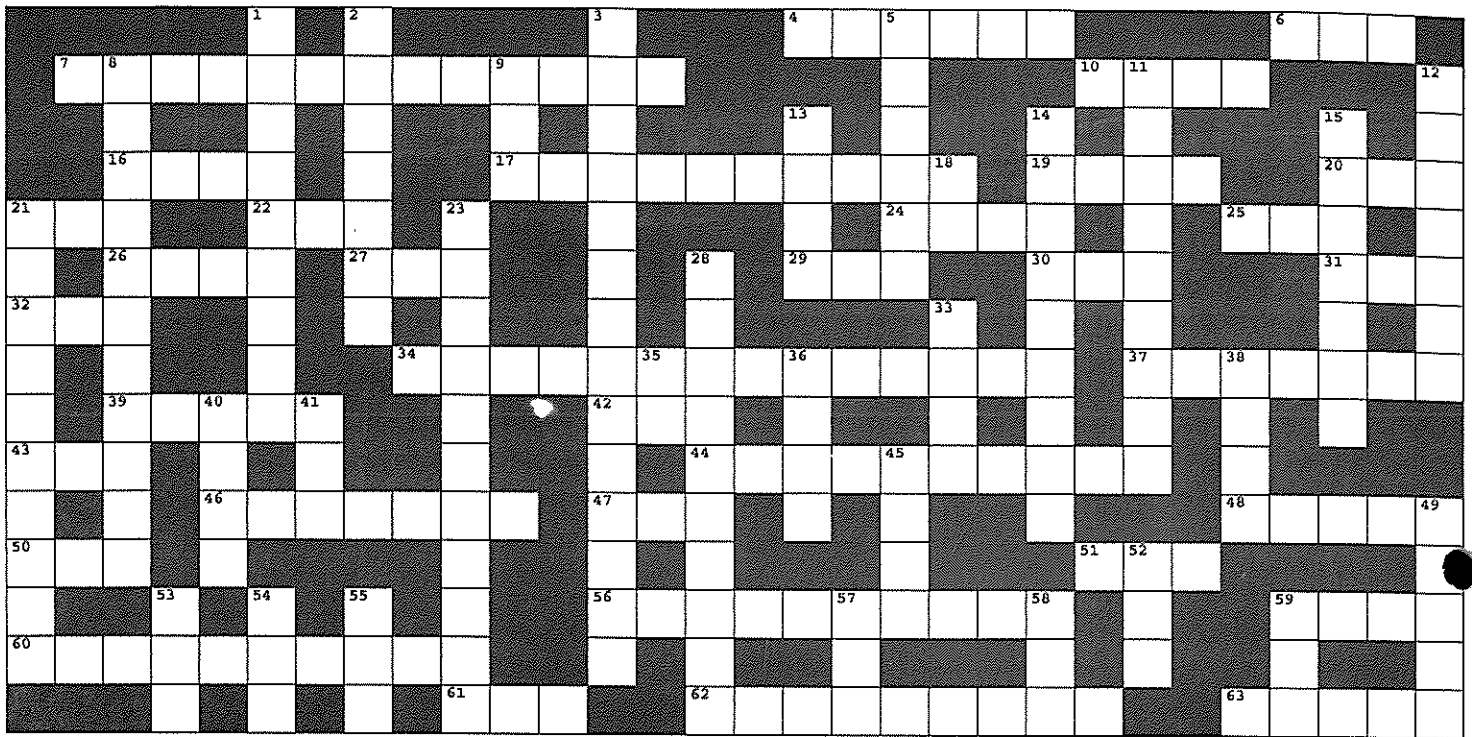
Time: 10am

Date: 23rd April 1999

Anyone wishing to attend **must** contact either Richard and Toni Stevens on telephone No.32203 or Gillian Phillips at the Department of Agriculture on telephone No. 27355.

Open Day Competition was won by Marlene Marsh of Shallow Harbour with 23 answers correct out of 24 questions and in 2nd place was Shirley Pole-Evans of Many Branch fram.

APRIL'S CROSSWORD

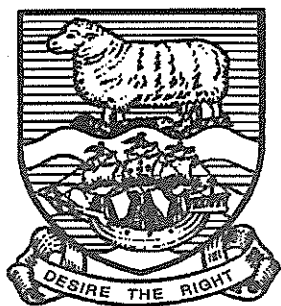


ACROSS

4. A YOUNG COW
6. MIDDLE OF ONE AND THREE
7. ALL FARMERS ARE GETTING READY TO SUBMIT A BOOKLET TO DO A WFP!
10. A BIRD WITH A BLACK NECK WHICH LIVES ON PONDS
16. A TYPE OF SPICE
17. A LOCAL FLOWER THAT GROWS WILD IN LATE SPRING/SUMMER
19. WORSHIP AS A GOD
20. A WORD IN THE PAST
21. A BLACK AND YELLOW FLY
22. SCORE IN GOLF
24. PAST TENSE OF SELL
25. A SMALL AUTOMOBILE
26. CURVED STRUCTURE NEXT TO THE CHURCH
27. A SMALL INSECT THAT LIKES TO WALK ON YOUR WINDOWS!
29. YOU HAVE TO BE THIS TO GO TO AROBICS
30. NICE TO EAT WITH NIBBLERS AT A PARTY
31. THE GOLF BALL SITS ON BEFORE ITS HIT
32. NAME OF A PRINCESS THAT CAME TO VISIT A FEW YEARS AGO
34. TO FIND THE FATNESS IN AN ANIMAL
37. VEGETABLE THAT GROWS LONG AND COLOURED ORANGE
39. RANGE OF MOUNTAINS IN CHILE
42. A RODENT
43. VEGETABLES ARE USUALLY MARKED IN A..... IN THE GARDEN
44. A POPULAR TV PROGRAMME BASED IN LONDON
46. A CATHEDRAL TOWN OR CITY
47. SLOW AND SLUGGISH
48. A BLACK BREED OF COW/BULL
50. COMES AFTER APRIL
51. A FEMALE CATTLE
56. LIVESTOCK ORDINANCE IS MADE INTO THESE
59. A SOUND MADE TO FRIGHTEN AN ANIMAL
60. ONE'S EMPLOYMENT
61. WHERE THE TAG GOES ON A SHEEP
62. AN EXPERT IN SCIENCE
63. LINING OF A OX'S STOMACH

DOWN

1. TO TALK TO SOMEONE ELSE BY A MICROWAVE SYSTEM
2. BYRON MARINE HAS A BOAT CALLED..
3. TELEPHONE CENTRE IN THE FALKLANDS
5. TO PUT ONES MONEY INTO
8. A POPULAR AUSTRALIAN PROGRAMME ON TV
9. A SMALL SEED IN AN ORANGE
11. BAGS FOR PUTTING WOOL IN
12. BLOOMERS!! FOUND IN THE YOUR GARDEN
13. ABBREVIATION OF FALKLAND ISLANDS DEFENCE FORCE
14. A RED BERRY YOU CAN MAKE JAM WITH
15. A FUNNY DRAWING
18. OPPOSITE OF YES
21. NAME OF AN ISLANDER AIRCRAFT
23. THE OWNERS OF THE TAMAR FI
28. WIDE SPREAD OF VEGETATION GRASS
33. A BRIGHT CRICLE SURROUNDED BY STARS
35. A CHILDS THANK YOU
36. WE ALL HAVE ONE ON OUR FACE
38. LIST TO SHOW 'WHO'S DOING WHAT'
40. THE FLOORING OF A BOAT
41. TO TAKE A SMALL DRINK
45. OPPOSITE TO THE WEST
49. TO TALLY SOMETHING UP
52. SCAB ON SHREEP
53. A RED BRIGHT CIRCLE THAT SHINES IN THE SKY
54. A SHEEP'S BLEAT
55. A HOLE DUG OUT IN THE GROUND
57. YOUR EYES HELP YOU TO.....
58. INTERNATIONAL CODE OF HELP
59. SINGER CLIFF RICHARD HAS THIS TITLE BEFORE HIS NAME



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PLUS ALL THE REGULAR FEATURES AND MORE!

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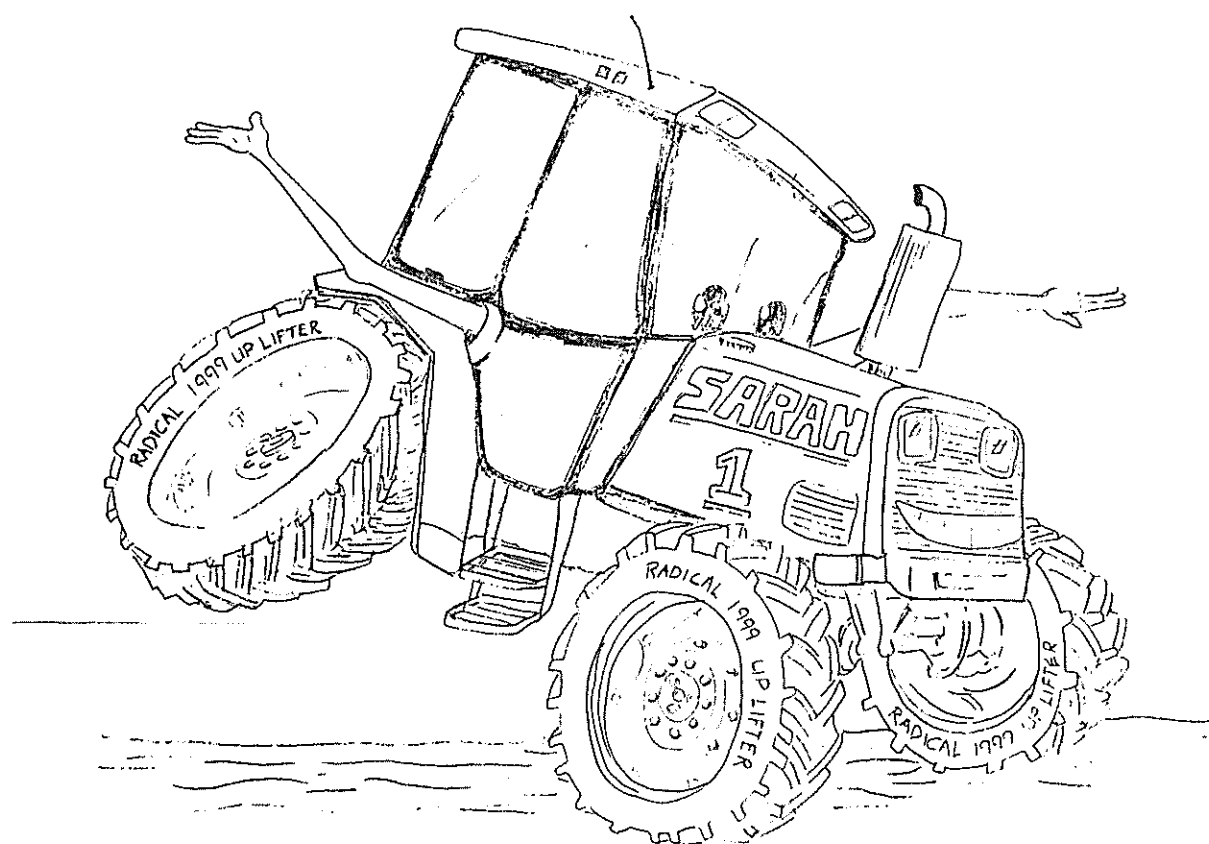
EDITORIAL

Not a lot to report from the Department of Agriculture this month. Most of the staff have been learning about the various pieces of machinery and equipment at Brenton Loch. This exercise was for staff to know how to use it and to be able to instruct any farmer who intends to use the machinery pool.

The Department of Agriculture would like to say a big thank you and good bye to Arthur and Rhoda who have been at Saladero with the National Stud Flock. We wish you both the best of luck in your new home at Home Farm, Douglas. The new occupants, John and Viv Hobman will be settling into Saladero in the next week. We wish them all the best of luck in their new home, too.

Hopefully with fingers crossed, I will managed to get the 4th Edition of the Farm Management Handbook completed and sent to you before the end of May. It is still not too late to add any information that you would like to see in the booklet.

Farming Statistics - This year I have made a slight mistake on the form. I have inadvertently missed out 'Shearling Ewes'. Please could you add your 'Shearling Ewes' to the total on the top line. I apologise for this error.



"KNOW YOUR TRACTOR, KNOW YOUR GROUND" By Marie Summers

THIS MONTHS CONTRIBUTORS

Steve Pointing	Snr. Veterinary Officer	Alan Lowe	Forestry Consultant
Marie Summers	Agricultural Assistant	Nick Pitaluga	Farmer, Salvador Farm
Robert Hall	Falkland Woolgrowers	Robin Thompson	Beef Specialist
Jim McAdam	Agricultural Dept. Northern Ireland	Pam Berntsen	Farmer, Albemarle Station
David Parsons	Legume Specialist	Aidan Kerr	Snr. Scientist
Mandy McLeod	Farm Management & Training Officer		

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LEGUME SEED PRODUCTION PART 1 - THE SEX LIFE OF LEGUMES

By David Parsons

To humans, a flower is pleasing to the eye. For thousands of years we've cultivated plants for their flowers, and bred new varieties which have even bigger and brighter flowers. I think that most of us hold the view that flowers exist solely to provide us with pleasure, and add a bit of colour to our gardens. However, there is more to it than that - the flower is in fact the reproductive centre of the plant.

The pea-like flower of the legume plant is one of the major ways of recognising it as a member of the legume family (See fig. 1). There are five petals, arranged in a distinctive manner. The large posterior petal, called the *standard* is very prominent. The two lateral petals, called the wings are broad, but taper towards their base. Inside these are two smaller petals, which are loosely fused together, and because of their boat-shaped appearance are termed the *keel*.

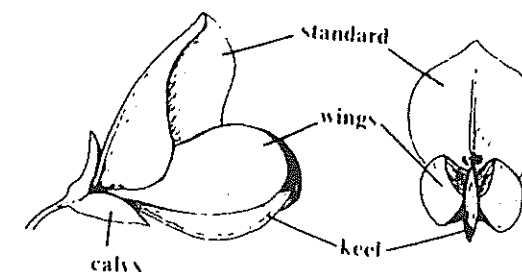


Fig 1. - The petal arrangement of a legume flower

Within the keel lie the male and female sexual organs. Ten *stamens* (male parts) which form a tube surround the *carpel* (female part), which emerges from the stamens. As shown in figure 2, the male stamen consists of a stalk (*filament*), and attached on the end the pollen producing part (*anther*). The female carpel consists of an *ovary* at the base where the seed grows, joined to a tube-like *style*, and on the tip the part that receives the pollen (*stigma*).

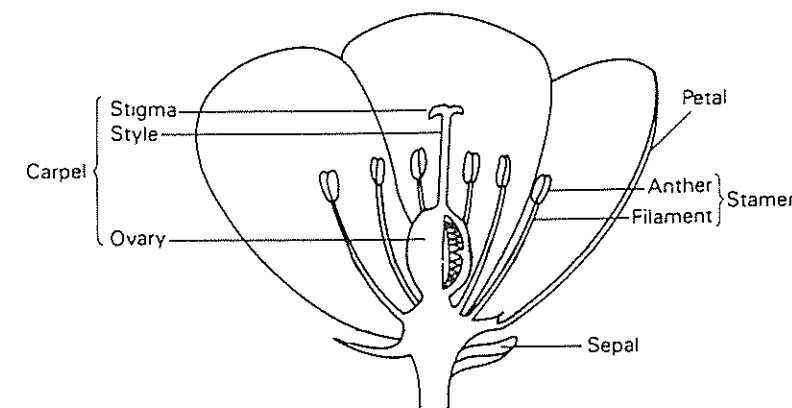


Fig 2. - Cross section of a generalized flower

The structure of the flower, together with the presence of nectaries (for production of nectar) are designed for pollination by insects, particularly bees. However, legumes differ in their need for bees to pollinate them. *Cross pollinated* plants require bees to pollinate them, and without bees, no seed will be produced. An example of this in the Falklands is white clover;

SHEEP AI IN THE FALKLAND ISLANDS - THE PRODUCERS SIDE OF THE PICTURE

From Nick Pitaluga of Salvador Farm

it flowers splendidly, but very few, if any seed is produced. On the other hand, suckling clover (the small yellow flowered clover) is self-pollinated. Even though we have no bees here, it is able to produce plenty of seed.

The general rule is that annual plants are self-pollinated and perennial plants are cross-pollinated. However rules are meant to be broken and there are a number of exceptions. For example perennial lupins such as Russel lupin and tree lupin produce loads of seed, even where there are no bees.

Dividing plants into just two classes of cross and self pollinated is also a bit of a simplification. In reality, a lot of plants are somewhere in the middle. For example crimson clover will set a small amount of seed where there are no bees, but add some bees and lots of seed will be produced.

So what do bees actually do? Well there are two things. Firstly there is the obvious - they take pollen from one plant to another, thus helping cross pollination. But there is also the physical presence of the bees which has an effect. For cross-pollinated plants the stigma and anthers need to be exposed, and this occurs quite easily as the insect alights on the wing petals and at the same time depresses the keel. For example with lucerne (alfalfa), the keel petals are joined more tightly, and as they are depressed by the bee (with some difficulty), the stamens and stigma curve up explosively and strike the bee. In this way the flower is cross pollinated, and the bee is loaded up with more pollen for the next flower. However, with alfalfa, if the stigma fails to contact foreign pollen on the bee, its own pollen will fertilise the flower. So it is not only the pollen carrying ability of the bee, but also the mechanical action of it landing on the petals, known as "tripping", that is important for pollination.

As you well know, we unfortunately have no bees in the Falkland Islands. However over the past few months, we have been observing flies apparently "working" the flowers of legumes and other plants. This does not come as a complete shock, as in other places without bees, such as the Faeroe Islands, a similar occurrence has been reported. Even if the flies are not actually transferring pollen (although they could well be), there is a good chance that they could be tripping some flowers, allowing self-pollination.

One exciting result of this is that we have noticed that lotus is setting seed in at least three locations around the Islands. Lotus is normally thought to be a cross-pollinated plant, and it has come as a pleasant surprise that it is setting seed. We are unsure at this stage whether it is flies tripping or pollinating the flowers, or whether they are genuinely self-pollinated. However it means that with lotus, which is turning out to be an extremely promising pasture legume, there is the possibility of spread from seed as well as the "creeping" of rhizomes.

It is obvious that bees, and their ability to pollinate could hold benefits for growing pasture legumes, and many other ornamental plants in the Falklands. All will be revealed in Part 2 - "To Bee or not to Bee?"

Response to Cameron Bell's article in last months Wool Press No. 113 regarding the viability of AI raises the obvious points (cost for numbers done etc) which we have lived with and known about from its inception.

I do not dispute the point that costs (at a lean period in the wool industry) should not be looked at, but as his figures are based on one seasons results and a single seasons experience, I would like to make the following points to support the scheme and hopefully encourage those who have been put off by poor results, not to condemn it outright, but to remember what has gone on before.

1. The figures for overall lambing have to be understood in context and no one should have expected miracles. Successive Veterinary Officers have expressed surprise at the condition of sheep presented for insemination, the manner in which they were presented (in some cases) and the results of 51% to 64% are as I understand it, good if you are working with deep frozen semen.
2. If "too great a reliance" was placed on AI in the past for any reason, it was to stop the problem of Breeders going round and round in circles selecting from within a very limited scope of breeds that has only been boosted since the 1950's by sporadic imports from Chile, New Zealand and Britain (and a good thing it was too). It allowed us to tap into sources of ram cover which we couldn't afford to buy or import. If research into what was available and stock history from the supplier was not requested and disappointment arose from the results, then that has to be the Breeders' lookout.
3. I will address the points 1, 2 and 3 of Camerons suffixes in a later article, but assuming that a Breeder knew that the semen purchased came from a ram he would dearly love to see eating Whitegrass and Christmas Bush on his green, then presentation of the best of the ewes acquired with a new section or quickly bought in for the job, renders all three rather irrelevant for AI discussion.
4. The costs for last season are certainly indisputable and conservative. You don't get something for nothing; F.I.G. will probably never be able to fully assess on paper what subsidising AI work has actually done for the Islands - unless someone sees the sheep churning out twins (from AI) having also come off an AI straw itself. In our case - I admit complete bias having managed to get "Grandchildren" stock from early day AI progeny, then seeing them eating Diddle dee berries and thinking - "*Well your Great-grand pa didn't see too much of this in Tasmania ...*" There's also a decent fleece, plus the wonderful placid behaviour that the bloodline change had brought in. Assuming that you will be lucky to get one ram hogget, from another animal in another country, off a ewe of your choice then a cost of £350 is not too bad when one considers that the private imports were around £750 with subsidised fares etc), and £175 is a good price for an N.S.F. ram. Another way to look at it is "we don't get little Shoguns and Discoveries from buying one of them, - and what do they cost? (My apologies to owners - I'm illustrating a point - not "having a go").
5. Quote from Cameron Bell's article "*(Ultimately AI ram hoggets are of unproven/unknown quality. Unfortunately, there seems to be a common tendency amongst Falkland farmers to feel compelled to use AI rams, even if they are sub-optimal, simply because of the costs and effort outlayed)*". Having got some very expensive wethers and cull ewes from AI, I disagree with this assessment of farmers abilities, but don't dispute that it has occurred. All stock is "unproven" until it has worked and most progeny spend their life that way, unless it lives on your green and you know it better than your neighbours. Having seen better and more productive animals from AI rams inseminated into ewes bred here, than some of those imported in 1991 producing a less variable progeny no matter what the ewe, I would disagree with all of the last paragraph of Camerons article.
6. Having established an excellent relationship with a Breeder and a view to endeavouring to develop a specialist wool line with Falkland attributes, I cannot see how those wishing to exploit a potential meat market, or even those hoping to source their fibre - producing rams for a depressed Millenium from the N.S.F., can do so without AI. from outside the Falklands. Ultimately, the N.S.F. too can only go round in

circles unless it is enhanced from outside; if it achieves a breeding objective, it may well reduce its versatility in doing so.

7. Anyone who has worked out how long it may take to breed the prerequisite number of meat sheep to get a Military contract will know that the price and particularly the quantity will change by the time genetics pay and there may not be a Garrison either!

At such a critical time in the redirection of camp production priorities, it is disappointing to find support for crucial work waning on a cost/time story .

There's no such thing as a "free lunch".

KNOW YOUR TRACTOR, KNOW YOUR GROUND!

By Marie Summers

A two day course for the Agriculture Department staff. How to use tractors and their implements.

The start of the course began with two videos on overturning tractors. What a great start, as if we were not already scared of tractors!! Know your tractor, know your ground was imbedded into our heads all the way through one of the movies, but a nice cup of tea and a bourbon biscuit settled the nerves and took away those bad thoughts. Robin and Sean wanted the next two days to be fun and decided to have a small competition throughout both days. We were split up into groups as follows:- Bob, Sarah and myself - Beauties and the Beast; Owen, Gillian and David - To be announced; Aidan, Lucy and Timmy - Agroes; Doug joined Beauties and the Beast on the second day.

At Saladero we were introduced to the tractors - BIG RED (Massey Ferguson), BERTIE (Large Ford -7610), BESSY (Small Ford - 3610) and Gerald Morrison's two who refused to give their names, probably because the next task was to find faults and they could deny everything. I can't say exactly how many faults were found as I can still walk and would like to continue for a while yet. There weren't too many though and they were only minor.

Tractor driving time! This went well, no one crashed or broke anything and there was only a bit a trampled grass here and there. Once everyone had finished practising we proceeded onto the front-end loaders and the forks. Everyone had a go at picking up pallets but Sarah and I took it one step further by picking up a tyre and placing it on a hook - What swats eh! After everyone was sure that they had given the pallets enough rough and tumble we moved on to the bucket. This was where Sarah took her moment of glory and tried balancing the Massey on three wheels. I laughed but thinking about it now it wouldn't have been that funny if she had rolled because I was in the cab with her. The day finally finished at 4.45 and everyone returned to GooseGreen for a great BBQ and a good nights rest.

Day two and dot on 8.00am we were off to Saladero once again. Today we were introduced to the sprayer, seed drill, Einbock, slasher, rotavator and fertilizer spreader. This was all fine until Robin suggested that we calibrate the sprayer, fertiliser spreader and the Einbock. This took a while for some as the machines did not want to play fair and messed up the results. Once we had finally scraped the results Robin and Sean were looking for time to PLAY (being the technical term) with the machines. I think the main one to mention is Slasher Bob who very much enjoyed giving the grassbogs a free hair cut. The day finished with machinery sports. This involved reversing a tractor and trailer up hill through an S-shaped squiggled line of blue pegs, which cost 5 points, £2 or both (it was up to us) if we hit any of them! This is where I would like to thank Doug for helping me as I would have never made it without hitting or crashing into something. Finally we had a go at reversing the seed drill onto a trailer crafted by Mel Lloyd. Once that was all over it was final points time. Agroes were 1st with 189 points then Beauties and the Beast then to be announced who even with an extra 20 points, (kindly donated by Beauties and the Beast), didn't manage to win.

I would like to say a very big THANK YOU to Robin & Sean for all their hard work and for organising the whole event. It was very interesting and a great deal of fun. Also thanks to Kay Morrison for making us lunch on the second day.

MACHINERY SELECTION FOR CEREAL FARMING IN THE FALKLAND ISLANDS

Although cereals have been planted on some farms in the past, little are grown at present and the technological advances in cereal machinery should be exploited in the Falklands if farms wish to plant cereals, or indeed grass.

Ground selection

Cereals require good seedbed preparation in reasonably friable soil. Hence it would be best to select sites which have been reseeded in the past and may have soils with some mineral content. Cereal sowing and harvesting machinery will generally operate best on reasonably flat ground so deep ditches, hollows and steep slopes should be avoided.

Key stages

Growing and utilising cereals involves 4 key operations; ground preparation and crop sowing; growing the crop; harvesting the crop; utilising the grain.

(1) Ground preparation and sowing

The key to the whole operation is the establishment of a uniform crop with a reasonably high plant population. From experience many of the crop failures or patchy establishment in the Falklands are as a result of a dry, fluffy seedbed (usually following rotavation) which has been inadequately consolidated and where seed has been sown at an uneven depth. Such conditions result in seedlings being very prone to drying out. Hence the key issue should be minimal (but adequate) soil disturbance, even sowing and good consolidation to **retain moisture**. The shorter the time the cultivated soil is left exposed to the air the better. Hence some form of a one-pass operation is best.

The likely scale of cereal growing in the Islands and the often rough stoney nature of the soils likely to be sown, mean that a small extremely robust type of machine would be best. Having talked to a number of growers and machinery dealers in N Ireland and a few in England it appears that the conditions under which cereals are grown on mixed farms in N Ireland (often in small uneven fields, on a smallish scale and in heavy, difficult soils) are much more like those for the Falklands than the huge, flat cereal areas of south and eastern England. The type of machinery chosen for each is completely different. In N Ireland, farmers want smallish, very strong and simple machinery with a moderate HP tractor requirement. In south and eastern England, machinery is much larger, less robust and requires a very high HP tractor.

One example of a very popular type of machine, which seems ideally suited to the Falklands is an Amazone rotary harrow with tyre packer roller and pack-top seed drill. This machine 'stirs' the soil with vertical cultivation blades (unlike a rotavator which fluffs it up) inserts the seed at a uniform depth and then has a combined roller which actually packs down the soil into a seed bed. The drill weight is mounted to add extra weight and thrust directly above the packer roller (where it is most required), rather than over the cultivator, where it tends to be in other machines viewed. Construction is extremely simple and very robust and versions are available down to 3m in width. Fertiliser would then be broadcast after sowing. It may also be necessary to plough immediately in front of the one-pass operation.

(2) Growing the crop

A fertiliser spreader and perhaps a simple chemical sprayer are the only machines required for this phase of the cycle.

(3) Harvesting the crop

I cannot source anywhere a trailed combine of the old 'binder' type. I do not believe such a thing now exists. Almost all modern combines are large and unnecessary for or unsuited to the Falklands. It is not difficult to pick up an older, second hand combine which would be quite small. Once again due to small field size in N Ireland there has been a tradition of small combines and availability of second hand machines is high. A baler would also be required (but see also below).

(4) Utilising the grain

Animals can be fed whole grain but generally more efficient feeding can be had if the grain is 'crushed' or 'bruised'. There are small, robust PTO operated crushers available.

Forage conservation

Cereal crops can be ensiled as whole crop silage before the grain is ripe and hard and this can be a high value, easily managed feed stuff. The cereal or any grain for silage can be best cut with a rear mounted disc mower, (with conditioner to help the crop dry faster and conserve its nutritive value). The shorter the time the crop is left in the field the better.

Some firms (e.g. Krone) make very robust, small mowers (down to 2m in width). The smallest of these can cut 1.5-2.0 ha per hour. Small robust, fixed-chamber round balers are made by the same company (down to 1.2m bale diameter). This type of machine can be used for grass silage (after bagging), cereal, straw and whole crop silage. It is compact, robust and simple.

Maintenance and repair service

High up the selection priority should be machines which are proven, have a good parts distribution network and are very easy to service and maintain and can be purchased from a dealer who is willing to provide phone/fax advice at a short notice.

Prices etc.

All of this machinery can be available new or second hand, fully reconditioned and with guarantees. If anyone is interested in prices I can give general advice or put them in contact with machinery dealers in Northern Ireland who will be happy to discuss (and fax) prices of new or used equipment.

Jim McAdam, Department of Agriculture for N Ireland,

Phone: (0) 1232 755275, Fax: (0) 1232 668372, e.mail: jim.mcadam@dani.gov.uk

JOKE OF THE MONTH

A young blonde was on vacation in the depths of Louisiana. She wanted a pair of genuine alligator shoes in the worst way, but was very reluctant to pay the high prices the local vendors were asking.

After becoming very frustrated with the "no haggle" attitude of one of the shopkeepers, the blonde shouted "Maybe I'll just go out and catch my own alligator so I can get a pair of shoes at a reasonable price!"

The shopkeeper said, "By all means, be my guest. Maybe you'll luck out and catch yourself a big one!"

Determined, the blonde turned and headed for the swamps, set on catching herself an alligator. Later in the day, the shopkeeper is driving home, when he spots the young woman standing waist deep in the water, shotgun in hand.

Just then, he sees a huge 9-foot alligator swimming quickly towards her. She takes aim, kills the creature and with a great deal of effort hauls it on to the swamp bank. Lying nearby were several more of the dead creatures. The shopkeeper watched in amazement.

Just then the blonde flips the alligator on its back, and frustrated, shouts, "Damn, this one isn't wearing any shoes either!"

GOOD PROGRESS IN THE SHELTERBELT TRIALS

By Alan Low and Aidan Kerr

Alan has just completed another interesting advisory visit to the Falkland Islands at the invitation of the Department of Agriculture. The purpose was to inspect the shelterbelt trials at Shallow Harbour, Saladero and Estancia, and to sort out details of the remaining two trials to be planted at Port Howard and Bold Cove this winter.

The initial trial at Shallow Harbour was planted in May 1997 using two types of Lodgepole Pine, one from Alaska and another from the Skeena River area in British Columbia. The good first year performance of the Alaskan type has continued during the past growing season. Survival is almost 100%, the trees look vigorous, with a healthy green colour and good needle retention. Average height is now just over 30 cm (12 inches), although some trees have reached twice this height. These early results are very encouraging. Results with the Skeena River Lodgepole Pine are much less promising. Despite replacement in May 1998 of last year's losses, survival is now down again to less than 90% retention. Many trees have lost many of their needles, are yellow and lack vigour. Average height is around 22 cm (8 inches). Amongst the Skeena River Pines are scattered a few locally raised 'Macrocarpa' Cypress trees planted in 1998 to fill gaps. These trees average 30 cm (12 inches) in height and look healthy and capable of good growth in the future.



Locally grown 'Macrocarpa'

Two other plots were planted with a different batch of 'Macrocarpa' and in these the trees have done much more poorly although survival is still high. Comparing the two sets of plots demonstrates very convincingly the importance of using high quality young trees for planting out. Two other species planted at Saladero were Austrian Pine and the Southern Beech Coigüe. Both show heavy losses and we suspect that these are due to the sub-standard condition of the trees when planted. The nature of the Falklands climate is such that any trees intended for planting in 'camp' conditions must be sturdy, with a good balance between shoots and roots, and properly hardened off before being planted.

The third trial, at Estancia, was planted in May/June 1998, using mainly Alaskan and Skeena River Lodgepole Pine. The initial performance of the Alaskan type is very encouraging on this deep peat site, with very high survival and healthy foliage. Planting involved using two different batches of Alaskan Lodgepole Pine, and the batch which was judged of better quality at planting time has definitely grown better since then. As elsewhere the Skeena River type looks less promising; despite high survival the trees are yellow and most have lost their older leaves.



Southern Beech Coigüe

To complete the planned series of trials, two more sites will be planted this year. These are at Port Howard and Bold Cove farms on West Falkland. When these have been planted up in June, the five sites will provide a good cross section of camp conditions for the trials across both East and West Falklands.



Alaskan Lodgepole Pines

It will be several years before firm conclusions can be drawn from the trial results, although very useful information is already being obtained. There is no doubt that the Department of Agriculture shelterbelt programme has got off to a very promising start. Alan is looking forward to a further visit in the not too distant future when he hopes to see continued good survival of the Alaskan Lodgepole Pine and 'Macrocarpa' Cypress, which must obviously be regarded as the key species for shelter planting in the Falklands.

Finally, we would like to thank all the landowners and people who accommodated and assisted us during Alan's visit.

LEGUME SEED PRODUCTION PART 2 - TO (BUMBLE) BEE OR NOT TO BEE?

By David Parsons

The first question that must be asked is: If you saw a bumblebee flying from plant to plant in your garden, would your first impulse be to squash it, or to admire it as the amazing creature that it is? Hopefully if your answer was to squash the bumblebee it might change by the time you have finished reading this article.



The Bumblebee

The advantage of having bees to pollinate plants is hopefully clear by now. The question is - why bumblebees and not bees? There are a number of factors that make the Falklands not conducive to keeping bees: 1) The wind. 2) The native plants have evolved without bees, and hence do not attract bees. 3) The winters are cold, and the summers are not very warm.

Beekeeping in the Falklands

Bee hives have been tried numerous times in the Falklands, with the best account in the D.o.A Report of 1946 by Gibbs. With hives at Port Howard, Hill Cove and Stanley, the main problem reported was the lack of food available. In general, the only plants available besides garden flowers were (and still are) gorse and clover. Bees had to be fed throughout the winter, and during periods in the summer with a sugar solution. In addition, the weather following swarming in summer was not reliable, and unfavourable for nuptial flights, thus leading to a long delay before laying. The winters also proved a problem, with whole hives frozen out during the winter, despite some extra thermal padding.

An Outline of the Bumble bee

1. The bumble bee, like the honey bee, is a social insect, living in a hive or nest.
2. Honey bee colonies are perennial, meaning that they live off their stored honey during the winter. Bumble bee colonies on the other hand are annual, dying out each autumn, with only the young queens surviving the winter to start new colonies in spring. This negates the need to feed colonies over winter.
3. Bumble bees nest in the ground, in animal holes, or in rough grass.
4. Because bumble bees are bigger and better insulated (hairier) than honey bees, they are able to work in cooler places where honey bee colonies could not survive.
5. Bumble bees have longer tongues than honey bees, and can pollinate some plants such as red clover more effectively.
6. Bumble bee colony sizes are more conducive to pollinating smaller areas. Bumble bee colonies usually contain 50-500 workers at their peak, whereas the minimum honey bee colony size that can remain healthy is around 4000. That's a lot of mouths to feed when there's not much food around.
7. As for the wind, honey bees definitely don't like it, and won't leave the hive if the wind is too strong. I haven't been able to read anything definite about bumble bees and wind, however whilst in South America during extremely strong winds, I noticed a number of bumble bees still working.
8. Bumble bees can sting, but rarely do so except in their own defence and usually only if actually handled. They are definitely much more passive than honey bees.
9. There are a number of plants which are particularly attractive to bumble bees: Pussy willow (*Salix caprea*), winter heather (*Erica carnea*) mountain wildflower (*Anemone blanda*), crocus, crab apple (*Malus*), cotoneaster, buddleia, honeysuckle (*Lonicera*), summer heathers (*Calluna vulgaris* and *Erica cinerea*)

It's clear from these facts that the bumble bee has a number of attributes that make it well suited to life in the Falklands.

So what are we waiting for?

There are some important questions to answer before foreign plants or animals are introduced into an environment. How will it effect the indigenous insect population? Is there a chance of introducing diseases? Could the new species become a pest? Although bumble bees have great potential as pollinators, particularly for legumes, we have to consider other consequences - we don't want to be considered ecological bandits!

I would be interested to hear any comments or viewpoints about keeping bumble bees in the Falklands.



A Bumblebee working the Magellanic Pea in Southern Patagonia

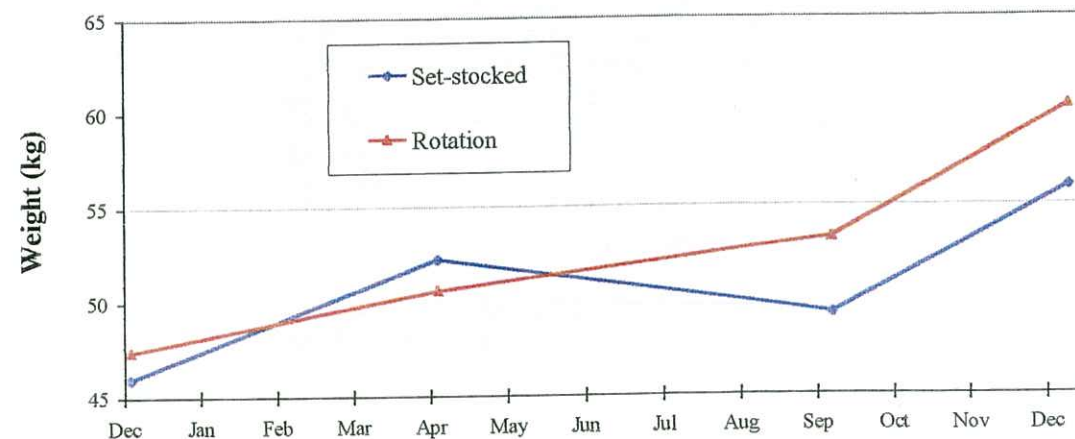
SOME BENEFITS OF A SIMPLE ROTATIONAL GRAZING SYSTEM!

By Aidan Kerr

For the third successive year the grazing systems trial near MPA indicated the benefits of a simple rotational grazing system for sheep performance. Monitoring of sheep performance has now ended but the paddocks will be grazed in the same way until 2001 so that changes in vegetation can be monitored longer.

Since 1995 the trial has compared the performance of 2-5 year old wethers, from Fitzroy Farm, between two set-stocked grazing systems (i.e. sheep are kept in the same 'camp' all year) and two 'rotation' systems (where the sheep are moved once in April from a smaller camp to a larger one for the rest of the year). Each entire system is about 130 hectares (321 acres) and holds about the same number of sheep per hectare per year. Sheep numbers have been increased annually by about 10% in all systems. Preliminary results of sheep performance over the three years are shown in the graph and tables. Further data analyses are needed before the emerging 'positive' trends, repeated in all three years, can be confirmed.

Sheep Livewieghts 1995 - 98



In each late summer period, 'set-stocked' sheep gained about 3 kg (all figures are averages) more than the 'rotation' sheep which also gained. The difference was not surprising given that the 'rotation' sheep were stocked at a rate over four times greater than the 'set-stocked' sheep. When weighted in April 'rotation' sheep were just under 2 kg lighter.

From April 'rotation' sheep were stocked in paddocks which had not had any sheep in since December. The four month 'spell' from sheep grazing allowed the grasses to grow much better than in the 'set-stocked' paddocks. Consequently, with the extra food available for winter grazing, the 'rotation' sheep continued to gain almost 3 kg. By September the 'rotation' sheep were 4 kg heavier than the set-stocked sheep. The superior weight gain of the 'rotation' sheep continued through to shearing in December.

Sheep weight gains	'Set-stocked'	'Rotation'
Stocking rates (s/ha)	0.9	summer 3.8 winter 1.2
% found dead	0.6	2.1
Live weight gains (kg)		
Summer	6.2	2.9
Winter	-2.9	2.8
Spring	6.6	6.9
Annual	10	12.5

Survival rates between the grazing systems were similar. Dead sheep were easy to find in the relatively small and frequently visited paddocks. The overall mortality rates were low but slightly higher in the 'rotation' flocks.

The superior weight gains of the 'rotation' sheep were consistently reflected in much better wool production, measured at each shearing. 'Rotation' sheep grew about 8% more wool with a longer and stronger staple. Using the 1998 average wool price of £1.89 per kg of clean wool, each 'rotation' sheep earned 33 pence more than a 'set-stocked' sheep. If tender wool was discounted in value, then the difference in income would be even higher, a lower proportion of the samples taken from the 'rotation' sheep were part-tender to very tender.

Wool yield and quality	'Set-stocked'	'Rotation'
Fleece (skirted, without belly) weight (kg)	2.207	2.379
Fibre diameter (um)	29	30
Staple length (mm)	110	117
Staple strenght (N/ktex)	23	27
Part-tender to very tender staples (% of sample tested)	81	62

In the near future I hope to report the vegetation changes in more detail. I know there are a few farmers considering adopting 'rotational' grazing systems for 'dry' sheep. I would be interested to hear their views on these encouraging results.

Finally, I thank all Department of Agriculture staff, past and present, that assisted with the trial, especially John Jaffray, Keith Heathman and Rex Mckay who fenced the site, FLH for the land, Ron Binnie and Fitzroy Farm staff for assistance with gathering and shearing.

CATTLE YARDS - COME & HAVE A GO

By Robin Thompson

Some farmers interested in developing a beef enterprise are now starting to plan the handling facilities they require. Previous articles have discussed this topic but there is no substitute for hands on experience to help decide the features and facilities required. One way of getting this experience is to come and work with the National Beef Herd in the Brenton Loch yards. We plan to be pregnancy testing and calf marking commencing on the first of June, so if you would like to come and see how it all works give me a call.

Condition scoring sheep & cattle

Cattle and sheep have the ability to store energy as body fat in times of feed abundance and to utilise this reserve as a significant proportion of their energy requirement in times of feed shortage. Back fat can thus be thought of as hay or fodder in the barn. With the animals accumulated it themselves, it is a very cheap form of potential feed.

Manipulation of this ability to store energy as fat is one of the key elements in managing grazing livestock. Of course this has been happening naturally to animals in the Falklands since their introduction. Improved animal production can result from judicious management of animal fat reserves rather than just accepting what happens. The information below can be used to learn how to assess cattle condition score so as more informed grazing management decisions can be made. A future article will deal with sheep.

Fat scoring cattle

Fatness can be assessed both manually and visually. Manual assessment involves using the fingers to feel for deposition of fat over the short ribs and around the tail head (figure 1). The scoring system uses a scale from 0 to 5 to describe increasing level of fatness (table 1).

Table 1. Cattle fat scores and their interpretation

Fat Score	Site Assessed	Description	Consequences
0	Short ribs Tail head Outline	Project very prominently Depressed Extremely angular	Animal physically weak, potential welfare case
1	Short ribs Tail head Outline	Ends sharp to touch No fat deposits Very angular	Animal will survive, needs more food and minimal stress
2	Short ribs Tail head Outline	Ends rounded to touch Recessed, some fat angular	Cows suitable for mating but require more feed. Unsuitable for slaughter
3	Short ribs Tail head Outline	Rounded, ends hard to feel Not recessed, fat visible Rounded	Animals suitable for slaughter
4	Short ribs Tail head Outline	Ends cannot be felt Soft, fat bulging from sides Lumpy	Body reserves available for use Too fat for slaughter, high carcass wastage - feed wasted
5	Short ribs Tail head Outline	Prominent fat deposits Lumps of fat bulging Very lumpy	Potential calving & mating problems Too fat for slaughter, high carcass wastage

Fatness can be assessed visually but it is important not to confuse fatness with muscling because strains of cattle vary in their ratio of muscle to bone.

At the same fat score beef breeds have a more rounded profile where as dairy types have less muscle and are more angular in their outline.

In very lean cattle there is very little body fat and virtually none immediately under the skin. Consequently the animal's skeletal structure can be readily seen under the hide.

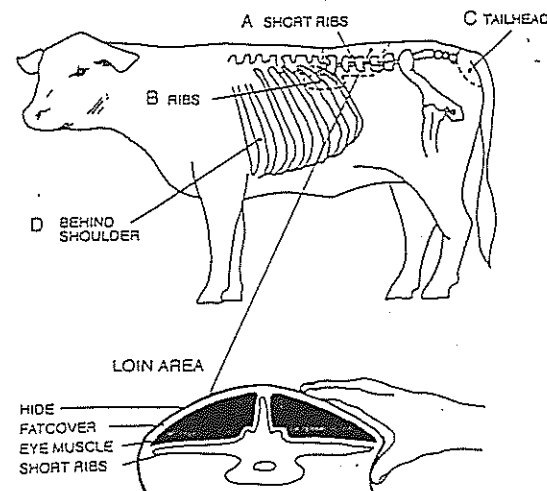
In short:

- The ribs, short ribs and hips are prominent
- The tailhead is deeply recessed on both sides
- The flank is cut up high
- The brisket has a V section
- The cod is not developed and the twist is cut up. (The cod is the remains of the scrotum and the twist is the area from where the back legs diverge)

As cattle fatten, fat is deposited under the skin so:

- The ribs, short ribs and hips become less prominent and eventually not visible
- Fat is deposited on either side of the tail the depressions are first filled, then become raised and finally lumpy so as the tail head almost disappears
- The flank and brisket fill with fat giving the animal a squarer outline
- The brisket fills with fat and has a U section
- The cod and twist fill with fat

Condition score is a valuable aid in determining feed priorities as well as deciding when animals have sufficient finish for slaughter. The abattoir is likely to include fatness as one of the price determinants so there will be penalties for insufficient and excess fat.



Location and position for manually fat scoring cattle

THE WELFARE CODES

by Stephen Pointing

The Codes of Practice for the Welfare of Animals Resolution was passed by Legislative Council on the 24th March 1999 and are now in operation. What will this mean to you as farmers? Well - probably very little to most of you who are, hopefully, complying with most of the recommendations already. However, you should all familiarise yourselves with the contents of each of the codes and these will be printed in full in the next edition of the 'Farm Management Handbook' which is due for completion by mid May of this year (this will be distributed to all farmers by the end of May if you don't receive one please contact Charlene Rowland).

There are six Codes of Practice in total and these comprise of recommendations for the following species:- Sheep, Dogs, Horses, Pigs and Cattle with a final code covering the Transport of Animals.

These Codes have taken several years to come to fruition and are the result of many hours of discussion - some of it heated. I can hear several of you asking what is the point of yet more rules and regulations. The answer is that we live in an increasingly competitive world and if the Falkland Islands wants to compete in the world market (whether it is selling wool or, in the future, meat) then it will have to meet the market demands (including the welfare demands) of the final consumer. The European Union (being pushed strongly by the UK) is particularly keen to see a general increase in animal welfare standards within the EU but this will inevitably lead to the member countries of the EU eventually demanding that external suppliers of animal products must meet the same welfare requirements as those imposed within the EU.

Animal Welfare Codes are intended to help people involved in the care and management of animals adopt high standards of husbandry. In addition, the Codes may be used by the Courts as a yardstick to assess husbandry and management practices in cruelty cases which come before them. Although failure to comply with a Code of Practice is not an offence "per se" under the Protection of Animals Act 1911, demonstrated failure to comply would increase the likelihood of a successful prosecution for animal cruelty.

These Codes may be revised in the future to take into account changes in animal management practices and in the knowledge of animal welfare.

Remember that animal welfare considerations are becoming increasingly important for the keeping and farming of animals world-wide. Practices which may have once been deemed acceptable are now being reassessed in the light of new knowledge and changing attitudes. High standards of welfare are not only important legally and ethically, but also have direct economic benefits and are becoming increasingly necessary for continued market access.

SOMETHING NEW IN THE FALKLAND ISLANDS

Source: *Sheepdog Focus Magazine, Spring 1999*

One January evening two years ago 60 people met in a remote hotel on the edge of Phynlimmon mountain range. What brought them together was an ancient breed of shepherding dog. True, it was no longer very popular with the Welsh farmers and shepherds and, because of that, there was a great danger that the Welsh Dog would die out altogether. Determined to prevent that happening, those present agreed to form a breed society, Cyndeithas YCwn Defaid Cymreig (Welsh Sheepdog Society) and to draw up rules for the identification and registration of suitable dogs.

Clearly this action was taken just in time because of the 200 dogs that have been inspected and assessed by the society's panel, only 84 were deemed suitable for inclusion in the stud book - not a very big gene pool; additionally, 12 bitches were put onto the grading-up register. It looks now as though the saving of the Welsh Dog/Ci Cwmreigh is going to become a success story; over 200 puppies have been born to registered parents and membership has increased dramatically and now stands at 200.

In work, the Welsh Dogs are divided into two types by a mixture of instinctive preference and training. There are those dogs who will head the sheep and there are those that will follow or drive them. How the latter dog works reveals the ability and origins of the Welsh Dog as a drover's dog, whereas the heading dogs had a different job to do. The fencing of the common grounds and hills is quite recent and the heading dogs could keep their charges in a flock and under control in open ground; they would stop them from getting mixed up with others and, just as importantly, they would be used to protect crops grown in open fields and even save the vegetables and flowers in unfenced gardens from the relations of the ever hungry grazing sheep. No doubt the dogs also has a guarding role and would drive off both human and animal predators. Whichever task it does, every Welsh Dog must be able and willing to bark.

Eye and style did not feature in the Inspection Panel's criteria. What were seen were dogs that are plain in their work and that will hold both their heads and tails up. What was needed to impress the Panel was the power to move a large number of sheep, face up to stubborn rams and be unafraid of cattle; a valued characteristic is the ability of the dogs to think for themselves yet, at the same time, have a willingness to listen. It is an intelligent breed and is adaptable to different tasks, but it has enough spirit and sense of independence to resist training in isolation - that is why almost all breaking-in is done 'on the job'.

An article in the Working Sheep Dog News was spotted by Brian Hewitt, who is Head Stockman at Goose Green Farm in the Falkland Islands where 75,000 sheep are run on 300,000 acres. Communicating by e-mail, fax and telephone - it sounds just as though it was a conversation across a room instead of across the world - he asked for a bitch puppy to be found. A conversation with a colleague, Sam Sinclair, led to an order for another puppy. Sam Sinclair used to work Scottish hill dogs in Scotland before he moved out to the Falklands in 1970 and he believes that they were very similar to the Welsh.

With the help of Cledwyn Fychan, the Society's secretary, two suitable youngsters will be boarding a boat at Shoreham in early March and will be at sea for at least four weeks. The younger puppy is mainly red in colour; she is called Breeze and was bred by Owen Pugh of Rhayader. Her companion, about a month older, is a Grade A puppy, which means that her progeny will be recognised as fully pure-bred; Nan is black and tan and comes from the yard of Daffyd Jenkins of Talybont. There was a time when the RAF would fly dogs to the Falklands, but now all imports are by sea. Breeze and Nan will share a large specially constructed kennel and will be tended and exercised by a Danish crew.

So confident are Brian and Sam that this very traditional breed will suit the shepherding style of the Islands, they have placed an order for two unrelated males; one of these has to be a blue merle, thus emphasising that the Welsh dog is a breed of many colours. The Falklands is becoming quite a repository of Rare Breeds of other species, and now the Welsh Dog is to be added. With four different bloodlines it will surely be possible to prove again that in practical work the Welsh Dog is as good as any other breed. It deserves the chance of this first export since the Society was formed, just as it deserves the enthusiasm of those 200 enthusiasts who have ensured that it will continue to have a secure future.

The author Aza Pinney is secretary of the South Wales Sheepdog Trial Association and Sheepdog correspondent with the Farmers' Guardian.



Photograph of Nan

ASSISTING THE FUTURE

By Robert Hall

In the last six months commodity indices in general touched any thing up to twenty year lows; on 5.12.98 the FT's Pig (live weight) index was at only 60.86 p/kg. World wool demand also dropped, with the consequential fall in prices and accumulation of wool stocks. The problems of inadequate demand are global and importantly not just confined to wool.

At such a time, the decision by FIG to provide additional assistance to farms in 1999 is extremely welcome. Every penny of wool income counts and Falkland Wool Growers Ltd will continue to seek highest value outlets for Falkland wool, not only to benefit farm principals and maintain their cash flows but also to minimise the costs of the additional assistance upon FIG and the Falkland Islands.

The generally poor performance of agricultural commodities in recent months means that beef, lamb, pork and cereal farmers are also having an extremely tough time around the globe. This is no consolation but it clarifies that there is no easy green grass solution over the fence in other agricultural commodities, certainly not in the short term and outside the Falklands in the world's export markets.

It makes every sense to continue sheep farming in the Falklands, with Falkland Islanders operating their own businesses for the long term. Great structural and operational changes have occurred during the last twenty years and during the current commodity crisis it is in the interests of the Falkland Islands to encourage farm businesses. The additional assistance is a necessary stop-gap, however, the Department of Agriculture's considerable research programme, the pasture improvement and incentive schemes are where the dividends from current research and investment should be derived. These schemes are especially welcome because they will enable Falklands agriculture to continue to evolve into the next century, as it has evolved during the last century. Whilst the comparative advantage lies with sheep farming and wool production, sheep farming will continue to be the main stay of Falklands agriculture, however, the quest to improve the efficiencies of wool production per unit hectare, labour, management and capital must continue.

AGRICULTURAL SUBSISTENCE

Most farmers will have received their first instalment of this years revised agricultural subsistence, which replaces the amount that you were expecting to receive for 1999. We are making payments to you as soon as we have received your 1998 accounts summary (and you have submitted your 1996 and 1997 accounts previously).

If you have not yet sent in your summaries, please do so at your earliest opportunity. If you have any queries regarding the subsistence, please don't hesitate to contact either Mandy or Charlene.

**** Would the farmer who sent in their accounts without identifying which farm it came from, please contact us. You'll know it's yours if you haven't received a payment into your bank account within 3 weeks of you sending your accounts summaries in. ****

A CHANGE IN THE UK QUARANTINE RULES.

By Stephen Pointing

Good news for dog and cat owners wanting to take their pets back to the UK after living overseas. The British Government has decided to abandon quarantine for dogs and cats entering the UK from rabies-free islands (which includes the Falklands) and certain European countries and replace it with a system based on identification, certification, vaccination and blood testing. It intends to have pilot schemes up and running within the next 12 months and that the new system should be fully operational by April 2001.

The new system will require dogs and cats to be identified by microchip, vaccinated against rabies (several months before being exported), blood tested to check that the vaccine has been effective and possibly treated against other internal and external parasites. All this information will be recorded on a "Pet Passport" which will be checked at the port of entry where further random blood samples may be taken. Sweden shifted to a similar system about 3 or 4 years ago and the authorities there are very pleased with the way the system is working.

For those of you who come from the UK and will be returning in the future it will now be possible to take your pets on holiday with you to a large number of European countries and bring them back without the requirement for 6 months quarantine. The Government is estimating that the new system could result in 80,000 to 240,000 animals per year travelling from Great Britain to the rest of the EU.

Australia and New Zealand are included in those countries from which dogs and cats will be able to freely move into the UK. A 6 months quarantine period will still be required for pets entering the UK from the Americas, Africa and Asia and any other country not listed under EU countries or rabies-free islands. In the case of the USA and Canada work is continuing on an assessment of the risks if pets from these countries were to be exempted from quarantine.

Remember it is not expected that the new system will be operational until April 2001 - still 2 years away. It will still seem like a very long wait for those who have advocated this change for many years.



NEW COMPUTER VIRUSES



Lewinsky Virus

Sucks all the memory out of your computer, then e-mails everyone about what it did.

Mike Tyson Virus

Quits after two bytes. Spits everything out.

Bill Clinton Virus

Gives you a 7" hard drive with no memory.

Ronald Reagan Virus

Saves your data, but forgets where it is stored.

Viagra Virus

Makes a new hard drive out of an old floppy.

Lorena Bobbit Virus

Reformats your hard drive into a 3.5 inch floppy, then discards it through windows.

Titanic Virus

Your whole computer goes down.

Kenneth Starr Virus

Competely examines every aspect of your computer, then compiles a complex report that discredits every aspect of your computer.

Disney Virus

Everything in your computer goes Goofy.

Oprah Winfrey Virus

Your 300 MB hard drive suddenly shrinks to 100 MB, then slowly expands to 200 MB.

Dr Jack Kevorkian Virus

Deletes all old files.

Prozac Virus

Screws up your RAM, but your processor doesn't care.

Arnold Schwarzenegger Virus

Terminates zome viles, leaves, bit it will be baack.

RECIPE

From Pam Berntsen of Albemarle Station

Marrow Bread

Oven : Gas 4 or 180° C or 350° F for 1 hour

- 1 lb. plain white flour
- 2 teaspoons baking powder
- 4 teaspoons ginger
- 4 ozs margarine or butter
- 4 ozs sugar
- 8 ozs grated marrow
- 2 beaten eggs
- 1 cup milk

Method: Rub margarine or butter into sifted flour, baking powder and ginger. Add sugar and mix, add grated marrow, eggs and milk, mix till well combined (you may need a little more milk) it needs to be a dropping consistency like cake mix. Grease and base line 2 loaf tins, divide mixture into this and cook for 1 hour, a skewer should come out clean when inserted. To serve, slice and spread with butter.

FOR SALE

1 Yanmar Diesel Electric Start Generator
 Continous output 5.1 KW - Maximun output 5.9 KW
 Price : £1800.00

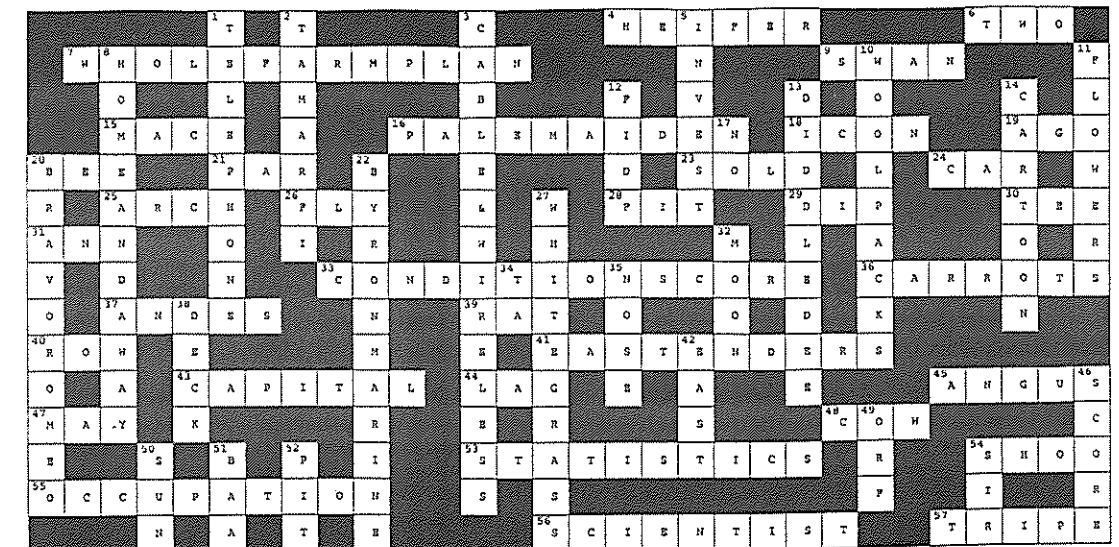
"one of the most popular ATV's on the market"
 NEW : 1 Yamaha Kodiak 400cc Quad. Electric Start, dual ratio 10 speed transmission, Start in any gear, maintenance - free shaft drive.
 Cost landed in the Falkland Islands £5000.00 will sell to you at £4500.00
 Specification paper available by request.

Contact: John Berntsen at Rincon Grande
 Telephone No. 31118 or Fax No. 31149

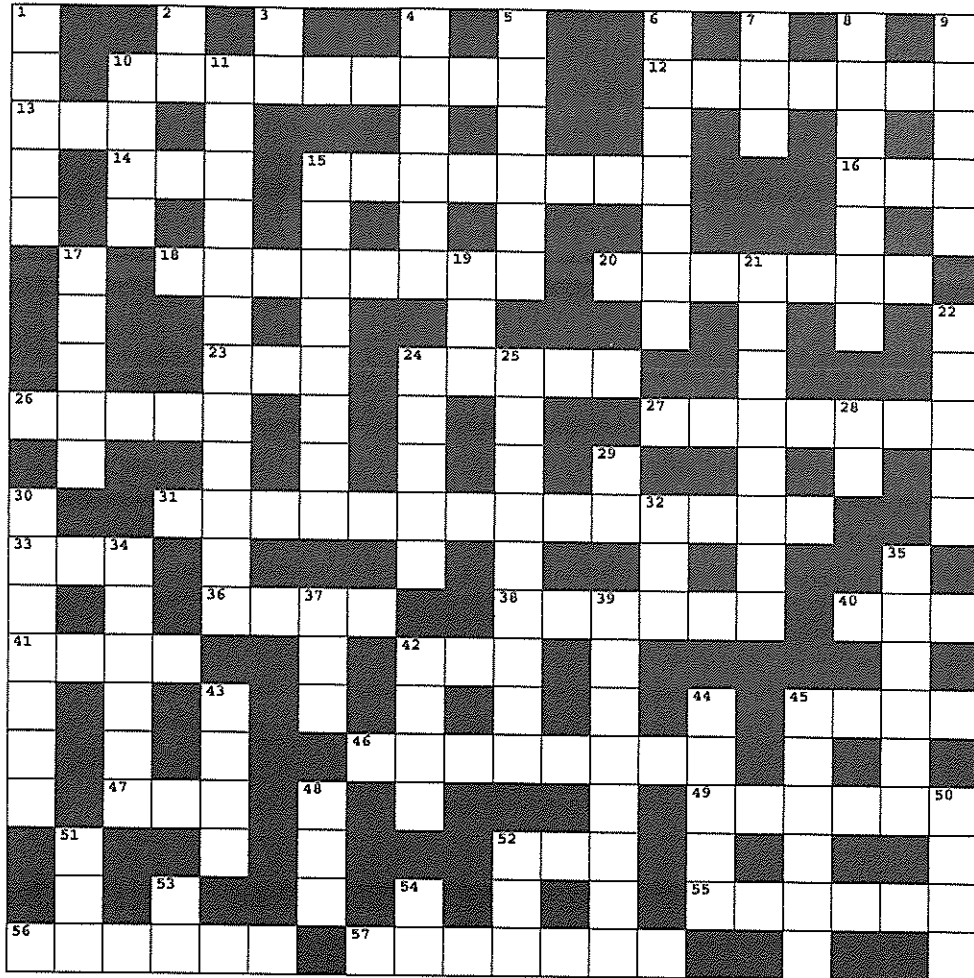
Answers to

April's

Crossword



MAY'S CROSSWORD



ACROSS

10. WEED THAT RABBITS LOVE
12. A GRAND OCCASION THIS MONTH
13. HOT, ACHY AILMENT
14. PRESENT TIME
15. AQUATIC ACTIVITY
16. LITTLE BUILDING
18. SUGAR CANE SYRUP
20. OFF-SPRING
23. ZERO
24. PASTIME ACTIVITY
26. MIX BREAD
27. TOP LEAGUE
31. FARM SITUATED IN THE NORTH WEST
33. CHOOSE
36. MANURE
38. BOY
40. POORLY
41. FINAL
42. SHORT WATCH CHAIN
45. BIRD OF PEACE
46. HAVING A BABY
47. MILKING ANIMAL
49. ACTING AWARDS
52. GROUP OF SHEEP
55. PINK OR RED FISH
56. TROUBLED AREA OF YUGOSLAVIA
57. TYPE OF GRASS HOPPER

DOWN

1. FIREARM
2. BACHELOR OF ARTS
3. DOCTOR
4. FINGERS AND TOES
5. GARDEN FISHERMEN PERHAPS?
6. PHOTOGRAPHY
7. SIGHT ORGAN
8. FALKLAND SHRUB
9. TROPHY INSTEAD OF A SHIELD OR CUP
10. SAND HILL
11. DOG WITH WEBBED FEET
15. STUD HORSE
17. FINE CROCKERY
19. SELF ESTEEM
21. TOP MAN IN FALKLANDS
22. LAND MEASURE
24. PRODUCE OF THE BEE
25. HARD CUSHION TYPE PLANT FOUND IN THE FALKLANDS
28. NOT OUT
29. ME AND YOU
30. LEARNING INSTITUTION
32. ALLOW
34. GOOD WINTER FODDER
35. TRIFOLIATE LEGUME
37. TYPE OF PLANT SEED
39. WORD BOARD GAME
42. PLANT FOUND AROUND STONE RUNS TYPICALLY
43. BIRD OF PREY
44. SMALL PARTICLES
45. QUIET
48. THIRD EYELID OF A HORSE
50. YOU DO THIS TO MAIL
51. ALSO
52. PREFIX TO NAME MEANING 'SON OF'
53. ORDER TO DEPART
54. PUBLIC RELATIONS



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PLUS ALL THE REGULAR FEATURES AND MORE!

*The Wool Press is published by the Department of Agriculture. Editor: Mrs Charlene Rowland
Telephone: 27355 Fax: 27352 or e.mail: doa.fig@horizon.co.fk*

EDITORIAL

This month has been very busy for the staff at the Department, erecting para webbing fences to shelter the trees at Saladero and tree planting at Bold Cove and Port Howard. At one stage there was only a few people left in the department. Everyone seems to have had a good time although most people said it was bitterly cold on the fingers.

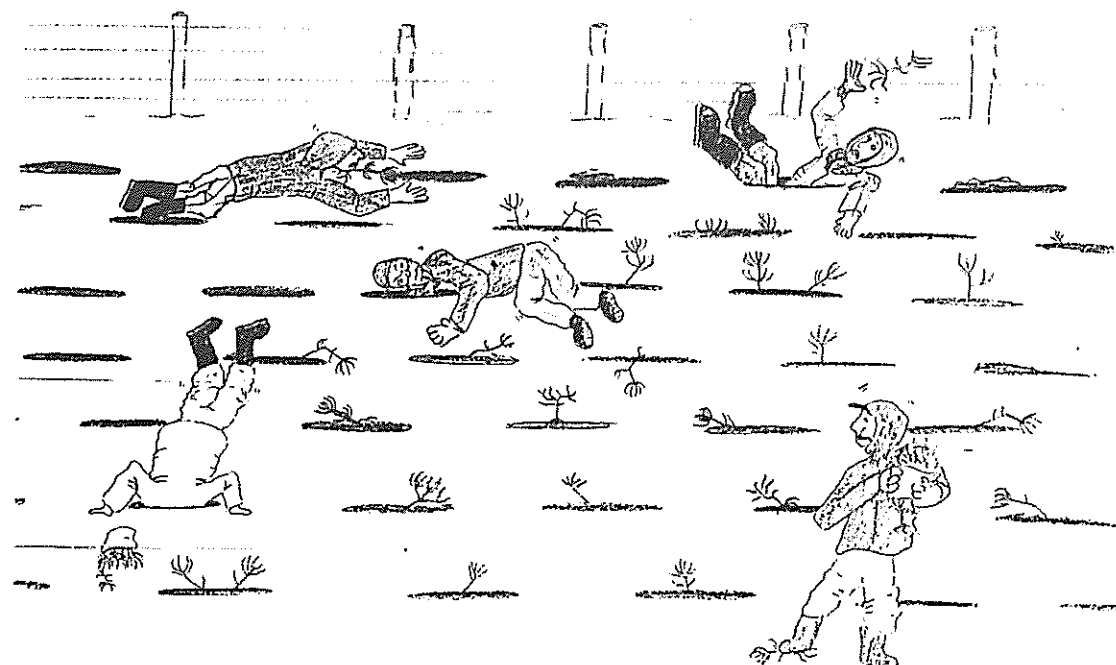
I have received an itinerary from Judy Summers of the Farmers Association in respect to Farmers Week which is published in this edition. As expected a well organised week is arranged with all different venues to see and topics to discuss. The Department is organising a Workshop in the Town Hall on Tuesday 6 July. This Workshop should be very beneficial and I recommend all farmers to attend, if possible. As usual it will be good to see you all up here at the Department offices on Thursday 8 July. If there is something you would like to see when you arrive, please don't hesitate to get in touch before you arrive and we will endeavour to try and sort your needs.

Do you have any of your fences up on the New Fencing Scheme? If you have, I would very much like to know so I can make arrangements to have them inspected and cleared to make way for your next lot of fencing requirements.

As in the last edition of the Wool Press, please may I remind you that I would like the Livestock Ordinance forms sent to the Department as soon as possible. As stated please could you add your "Shearling Ewes" to the top line as I inadvertently missed them out. Thank you to all farmers who have already sent their forms in - the sooner I have them all in - the sooner you get the published Annual Farming Statistics.

The Farm Management Handbook will be finished in the next week and sent to you as soon as it is printed.

Congratulations to new arrivals in camp for Tex and Mandy at Port Edgar and Charlotte and Arturo at North Arm.



"THE PERILS OF TREE PLANTING" By Marie Summers

THIS MONTHS CONTRIBUTORS

Sean Miller Sheep Nutritionist	Steve Pointing Snr. Veterinary Officer
Cameron Bell Veterinary Officer	David Parsons Legume Specialist
Judy Summers Farmers Association	Mandy McLeod Training Officer/Farm Management Adviser
Peter Nightingale Farmer, West Lagoons	Robert Hall Falkland Woolgrowers Ltd
Roger Diggle Doctor, KEMH	Robin Thompson Beef Specialist
Diana Berntsen Hydatid Officer	Aidan Kerr Snr. Scientist

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THE ARTICLES PRINTED IN THE WOOL PRESS DO NOT NECESSARILY REPRESENT THE VIEWS OF THE DEPARTMENT OF AGRICULTURE.

MEETING MOD LAMB SPECIFICATIONS

By Sean Miller

Falkland Landholdings recent announcement that they are hoping to meet part of MOD's local lamb requirement has created plenty of interest. Not the least of which is do we need to change breed to meet their carcass specifications, or can we make use of sheep we already have?

MOD's Specification

MOD wants a reliable supply of a quality guaranteed product. For lamb, the physical characteristics of the carcass are 13 to 20 kg (dressed) with 8 to 12 mm fat cover at the GR site. In practical terms, this means lambs of liveweight between 33 and 50 kg (assuming a 40% dressing percentage), and of condition score 2 to 3 (see Robin's article on condition scoring for info on condition scoring sheep). 40% dressing is at the lower end of the range. Lamb dressing % can vary from 40 to 50 % depending on fleece length and gut fill.

Rams and cryptorchids are fine, but *lambs must not* have cut their permanent teeth.

Does Breed Matter?

In reality, breed won't matter until pasture development occurs on a large scale. Even then, dual purpose breeds such as our well established Corriedales can perform admirably alongside the meat 'Ferraris'. As long as lambs match the carcass specifications within a reasonable time, they can have pointy-heads, black faces, even webbed feet.

There is no doubt that Dorsets, Suffolks, Texels etc. produce high quality lamb. Fed well, these breeds produce fast growing, early maturing lambs. The question is whether even our best undeveloped pastures can meet their high nutrient requirements once they are weaned. Our knowledge of plant quality says not, and that these breeds have little, if any advantage over Corriedales when they hit the camp. However, if good feed is available a gap will open.

Feed is the Key

As an example of the effect of feed on lamb growth, the following is real Falklands data we've collected this year.

Age	Camp fed ewes			Camp fed wethers			Greens fed rams		
	Liveweight (average)	Condition score	% meeting MOD spec	Liveweight (average)	Condition score	% meeting MOD spec	Liveweight (average)	Condition score	% meeting MOD spec
5 months	20 kg	-	0	21 kg	-	0	-	-	-
7 months	24 kg	2.2	3	26 kg	2	4	35 kg	2.2	55
16 months	32 kg	2.4	38	35 kg	2.5	45	-	-	-

- = not measured

Camp fed wethers did not reach 35 kg liveweight until the second February after they were born (16 months of age). At this time they had their first permanent teeth and would no longer match MOD specs. Obviously, feed is the key to producing lambs for such markets. Early finished lambs (before winter, less than 9 months old) must be the only serious option. Carrying them through winter could mean loss of weight and difficulty 'catching-up' let alone going on to meet the spec. The benefit of better quality pasture is obvious in the comparison between the camp fed wethers and the greens fed rams. Even though rams grow slightly faster than wethers (about 2 weeks difference to reach the same maturity), and the sheep we're talking about in the Greens column may have benefited from some 'hybrid-vigour' (i.e. they are progeny of imported Corriedale rams mated with local CorriedalexPolwarth ewes), better feed results in earlier finishing animals (by 9 months!).

The greens sheep were grazing the settlement fields and whitegrass camps around Goose Green until mid May. Although these fields are infinitely better than whitegrass camp alone, a legume based pasture would see far more animals achieve spec far earlier than the current system. Even so, 55% of the sheep have achieved spec by this time of the year, and a further 25% are within 3 weeks of maturity if good quality feed remains available. Thus, under the 'settlement field' system, 80% of Corriedale male lambs would be saleable before winter sets hard. And don't forget, those smaller, 20% of lambs that won't reach a MOD type spec may be ideal for the fishing fleet and Spanish small lamb markets.

There has been concern locally that Corriedales may get too fat to satisfy the spec before they reach the required carcass weight. For the sheep we've weighed and scored at Goose Green over the last couple of years, this is certainly not the case. Even 'well fed' lambs fell within the fat requirement when they reached slaughter weights.

Do We Need More Imported Meat Rams Now?

Our work says no. Most flocks can realistically separate some Corriedale types from their breeding ewes. The history of the Falklands' sheep industry would suggest that even many of the Polwarth types have sufficient 'past life' meat influences to produce fast growing, well matured lambs. By virtue of their Merino influence, pure Polwarth types will be slower growing, later maturing animals. But they too can make the grade if fed well enough.

Overriding all else is the need for high quality feed. Feed the lambs you have well, and they are more than capable of satisfying this potentially valuable market.

Ultimately, pasture improvement is the key to supply this market consistently and reliably.

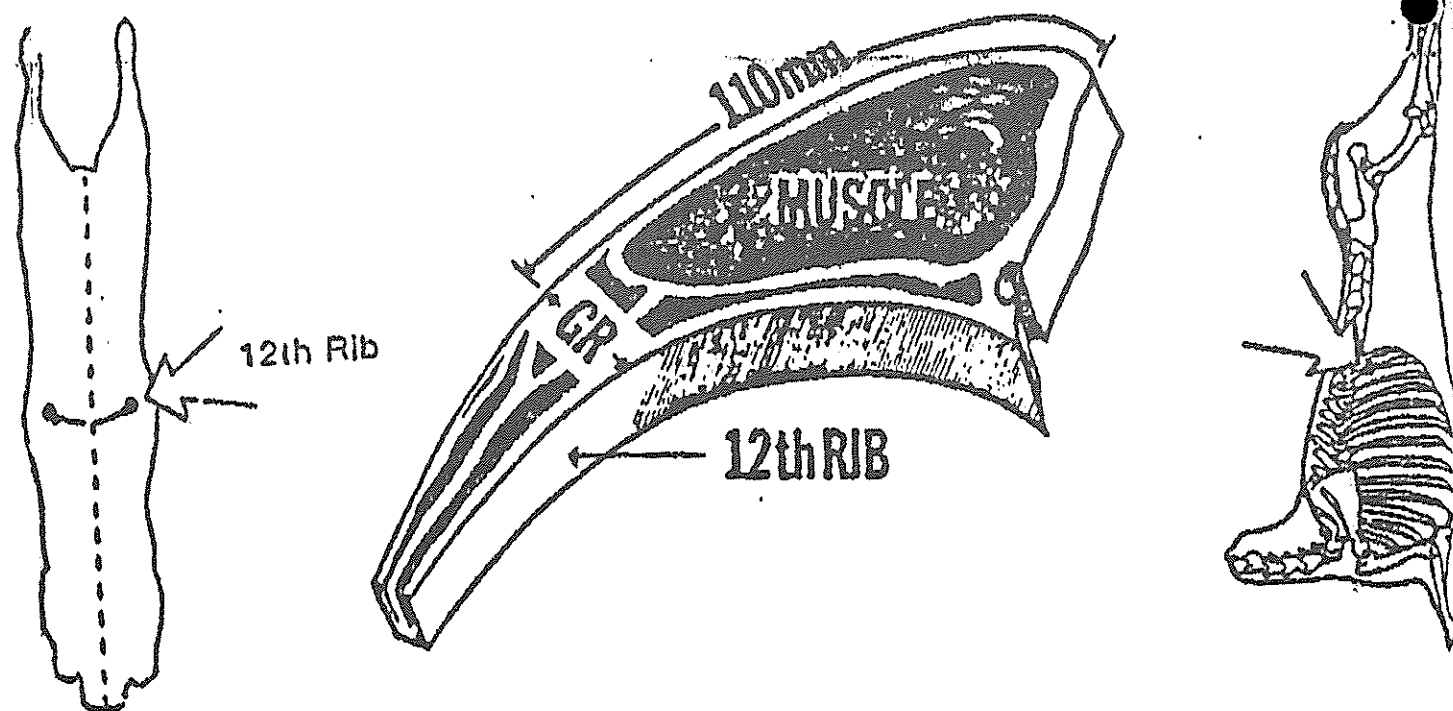
Meat industry terms

Cryptorchids

Cryptorchids are male sheep that still have their testicles. At marking time, the testicles are pushed back up into the body cavity and the ring is placed on the empty scrotum. With the testicles resting in the body cavity, they get too hot to produce viable sperm thus the sheep is rendered infertile. Cryptorchids (cryptos) grow faster and leaner than ewes and wethers, but when they mature they should be separated from ewes as they will *ride* the condition off both ewe and crypto.

The GR site

The GR site is measured on the 12th ribs at a point 11cm down the rib measured from the backbone. Fat cover at the GR site is well related to the total fat content of the carcass. Fat depth at the GR site is measured with a specially adapted knife that is marked with notches to indicate fat depth.



HUMANE KILLERS FOR SHEEP

By Cameron Bell

The Department of Agriculture has a limited number of captive bolt humane killers available for farmers. There is no stipulation that humane killers must be used instead of firearms for pre-planned slaughter of sheep: the choice is yours. Humane killers are commonly used in slaughter-houses and if used and maintained properly, are safer than firearms.

These units are like a heavy pistol and use .22 ammunition specifically designed for the unit. The ammunition can be purchased by farmers through the FIC, and costs approximately 6 pence per shot. Different types of ammunition can be purchased for other species such as pigs and cattle. The pistol is placed directly onto the animal's head and when fired, the 'bolt' (120mm long) penetrates the animal's brain. The 'bolt' remains attached to the 'pistol'. The heart will continue to function for some time, but with correct application, it is impossible for the animal to recover consciousness, since the areas of the brain concerned with this have been destroyed. Throat cutting should still be undertaken following stunning, unless it is a mass cull situation where a careful check should be made to ensure that each animal is in fact dead.

Although there is no cost to farmers for these units, we will issue them during Farmers Week after a practical demonstration at the Stanley Butchery on Friday 9th July. They must also be registered with the Royal Falkland Islands Police.

Please contact Cameron Bell at the Veterinary Clinic (telephone: 27366, fax: 27352 or email doa.fig@horizon.co.fk) to place your name on the list ASAP. As we only have a limited number available, it will be on a 'first in, first served' basis. If you are not attending Farmers Week, then I can make other arrangements for a demonstration.

JOKE OF THE MONTH

STRANDED ON A PACIFIC ISLAND

- 2 Italian men and 1 Italian woman
- 2 French men and 1 French woman
- 2 German men and 1 German woman
- 2 Greek men and 1 Greek woman
- 2 English men and 1 English woman

- 2 Bulgarian men and 1 Bulgarian woman
- 2 Japanese men and 1 Japanese woman
- 2 American men and 1 American woman
- 2 Irish men and 1 Irish woman

One month later on this absolutely stunning deserted island in the middle of the Pacific, the following events have transpired:

- One Italian man killed the other Italian man for the Italian woman.
- The two French men and the French woman are living happily together in a "menage a trois".
- The two German men have a strict weekly schedule of when they alternate with the German woman.
- The two Greek men are sleeping with each other and the Greek woman is cleaning and cooking for them.
- The two English men are waiting for someone to introduce them to the English woman.
- The Bulgarian men took a long look at the endless ocean and one look at the Bulgarian woman and started swimming.
- The two American men have formed a joint-venture to start an island food distribution company and are collaborating on cornering the coconut market, while the American woman keeps bitching about her body being her own, the true nature of feminism, how she can do anything the men can do, about the need for spiritual fulfilment, the equal division of household chores, how her last boyfriend respected her opinion and treated her much nicer and how her relationship with her mother is improving. But at least the taxes are low and there is enough shade that her complexion is not suffering unduly.
- The two Japanese men have fused beach sand into transistors, which they used to build a satellite transmitter and have faxed Tokyo for instructions about what to do next.
- The Irish began by dividing the island into North and South and by setting up a distillery. They do not remember if sex is in the picture because it gets sort of foggy after the first few litres of Coconut Whiskey, but they are satisfied in that at least the English are not getting any.

FROM THE FARMERS ASSOCIATION

Farmers Week

The following meetings have been arranged, there are others yet to be confirmed.

- Monday 5 July** **Meet Emma Edwards for discussion about potential for brick and tile manufacture from local clay.**
- Tuesday 6 July** **Agricultural Workshop.**
- Wednesday 7 July** **Visit Market Garden to discuss potential crops and view machinery with Tim Miller.**
- Thursday 8 July** **Meet Chief Executive and Councillors. Visit The Department of Agriculture.**
- Friday 9 July** **Visit butchery for demonstration of Humane Killer. Group Breeding Scheme discussion. Airstrip fire training.**

A detailed programme with times etc. will be sent to Farmers Association members.

The meetings are arranged for members only but, due to the critical situation in farming, the Farmers Association extend an invitation to all farmers to attend the important Workshop with the Department of Agriculture staff at 8.45am on Tuesday 6 July in the Town Hall.

WANTED

WORK EXPERIENCE PLACEMENTS FOR STUDENTS FROM OCTOBER TO END OF SEASON (OR THEREABOUTS)

I have had an enquiry from a young farmer in Scotland who would like to spend a season in the Falklands during his year out.

GAP has also approached us again and we are looking for placements for two students from that organisation.

Please contact Mandy at the Department of Agriculture as soon as possible if you are interested or want more details so that these young people can try elsewhere if they are unsuccessful in finding a placement here. Remuneration negotiable.

HYDATIDS - HOW CLOSE ARE WE TO FINAL ERADICATION?

By Steve Pointing

This question seems to have been asked year after year. Has the legislation worked? Is the 6 weekly pilling of dogs having the desired effect? We need to look at the history of the disease in the Falklands to appreciate whether or not we are winning the battle.

In the early 1950's when the export slaughter house was operating at Ajax Bay, San Carlos waters, the meat inspectors found an incidence of hydatids at 3.3%. By the end of the 1960's a visiting team of British Agricultural Advisors found the prevalence in sheep to be as high as 53% and control measures were called for. The first piece of legislation to control the spread of the disease was enacted in 1970 with another order introduced in 1975. By 1976 the recorded incidence had fallen to 13%. The final piece of legislation was enacted in 1981 (The Hydatid Eradication (Dogs) Order 1981) and this is still operational today. By 1983 the recorded incidence at Stanley abattoir was 1.8%. The most recent analysis of where we had got to was done by Michael Reichel during his 2 year stint as Veterinary Officer in the Falklands. By 1993 the incidence was 0.48% in sheep slaughtered at the butchery and 0.04% in sheep slaughtered on farms. So what do the latest figures tell us?

Diana has inspected approximately 4300 offals on 61 farms and found 2 positive cases. This gives an incidence of 0.05%. In the same period there have been 4 positive cases at the butchery in Stanley out of 8491 sheep slaughtered - giving an incidence of 0.05% for the butchery also. (The butchery has received sheep from 17 farms, mainly on East Falkland, but also some of the outer islands).

So it would appear that the rate of 0.05% might be fairly accurate. This equates to 1 sheep in every 2000 being infected or a total of 350 infected throughout the whole country. We really are nearly there and it would be a great shame to change the current policy or reduce the effort involved before reaching the final goal of Island-wide freedom from this disease. How long this will take I'm not quite sure but I do know that if we were to ease up now the infection rate could rise rapidly and all the good work in the past would have been to no avail.

Brief Summary of Infection Rates:

early	1950's	3.3%
late	1960's	53%
	1976	13%
	1983	1.8%
	1993	0.48% (Stanley Butchery) 0.04% (camp - ? under-reported)
	1999	0.05%

THE STORY OF THE ABERDEEN ANGUS

Supplied by Peter Nightingale of West Lagoons Farm

This breed of black polled cattle is a native of Forfarshire (Angus) Aberdeenshire, and the neighbouring districts.

The origin of the breed is somewhat uncertain but the existence of hornless back cattle in the north-eastern counties was recorded as early as the middle of the sixteenth century. The first great improver of the breed was Hugh Watson, tenant of Keillor (Forfarshire). He received from his father six of his 'best and blackest' cows and he followed this up by purchasing in the local markets the best cattle obtainable. Collectively, the greatest part of the early work of improving the cattle was carried out by Forfarshire breeders. William McCombie (1805-1880) Tillyfour, Aberdeenshire, who did more than any other single person to secure the breed in its world-wide reputation. He carried off two champion prizes of £100 each at the Paris International Exhibitions, 1878. 1st the best group of beef-producing and 2nd the best group of foreign cattle. The second prize (Foreign cattle) was obtained by Sir George McPherson Grant, of Ballindalloch, noted breeder of the "Eric" family. The winning of these gave the breed a great impetus and led to its introduction into Canada, United States and other countries where the breed has made marked progress.

Ministry of Agriculture & Fisheries - Livestock Edition 1927.

FOR SALE

2 Excellent moto-x bikes suitable for farm use.

74 b.h.p. 1995 Honda CR500 in excellent condition. Includes dep exhaust, renthal handle bars, byson red valves and curb grabbing knobby tyres. This bike has had over £1300 of spares and complete engine rebuild at E.T. James. Only ever used for moto x racing. Spare parts included.

Price: £2500 o.n.o.

74 b.h.p. 1994 Honda CR500. Includes renthal handle bars, dep exhaust and byson red valves. This bike is in excellent running order but the plastics and stickers require some attention.

Price: £1300.00 o.n.o.

Inquiries or offers to Arthur Turner at Rincon Grande Farm
on telephone: 31119 or fax: 31149

RUSSEL LUPIN - JUST A PRETTY FLOWER?

By David Parsons

I recently put an advert on the radio asking if anyone had any spare Russel lupin seeds. Some people, and not just from Stanley, wanted to know why. The reason was to get a collection of seed from lupins adapted to growing in the Falklands. The seed would then be used for trials to grow lupins as feed for sheep. "But why lupins? It's just a flower", I hear you say. I'll see if I can answer that question.

First of all I'll just mention that we're not just interested in lupins, there are a whole range of pasture plants that have potential in the Falklands. You have probably heard us say many times that the pastures here need legumes, to put nitrogen into the soil, and provide nutritious feed. Think laterally for a moment - we want a legume, one that can grow well in the Falklands, will survive poor soils with little fertiliser, and can be grazed by stock. The answer could be right under our noses - Russel lupin (see Photo1).

Russel lupin is not used extensively in other parts of the world, often because there is a more suitable plant available, but in some cases because people just haven't considered it. One of the places that Russel lupin is used is in the high country of New Zealand. David Scott, a well known New Zealand scientist wrote the following:

"A few of us in New Zealand in the colder, wetter, low fertility areas of the high country are finding it is in a class by itself - tolerating and making remarkable growth, and it should be just made for the cool wet conditions of the Falklands."

Below are some of the positives for growing Russel lupin, some fallacies, and some challenges that we face.

Advantages

- One of the most rapidly germinating legumes under cold spring conditions
- We know it can persist in Falklands soils and climate
- Capable of good growth with low fertiliser rates
- A perennial plant that can thicken up from self seeding - an uncommon combination

Fallacies

- "Sheep won't eat lupins." A load of rubbish. There are times of the year when Russel lupin is less acceptable to stock, but they definitely will eat it, as some farmers who have left a garden gate open will tell you. Photos 2 and 3 show the grazing effect of sheep at low and high stocking rates on Russel lupin.
- "It won't survive out in camp." It may not grow four feet high in camp, but it will survive as long as grazing is controlled.
- "It won't survive grazing by stock." Russel lupin isn't as tolerant of grazing as a plant like white clover, but it is considered to be more tolerant than legumes such as red clover or alfalfa. If you take a close look, you'll see that it grows from the base of the plant, and so as long as it is not continually grazed to the ground it will persist.

Challenges

- Availability of seed. At this time it is difficult to get large quantities of Russel lupin seed. However, the obvious source is New Zealand, and seed will hopefully become commercially available in the future.
- Successful establishment. Although lupin is extremely productive, it is slow growing in the first year or two. It is also sensitive to drought and competition during this time, so patience and care will be needed.



Photo 1. Russel lupin - originally from western North America.



Photo 2. Low stocking rate - plants are nibbled at, but the Russel lupin, and much of the grass is barely touched.



Photo 3. High stocking rate - everything is cleaned up. The lupin will have no problem re-growing, as long as it is spelled from grazing.

FALKLAND ISLANDS OUTDOOR PIGS

reported by Mandy McLeod

2½ years ago a consignment of 17 pigs travelled down to the Falklands by boat from the UK. The majority went to Raymond Evans on Pebble Island (10 gilts and 2 boars). The rest went to Mel Lloyd at Swan Inlet (1 gilt and 2 boars), The Market Garden (1 boar) and Goose Green (1 boar). I was at Pebble Island last week and took the opportunity to see how the pigs had fared in the Falklands. In part two I will let you know about the pigs at Swan Inlet.

PART 1 - PEBBLE ISLAND

Raymond's choice of breeds seem to be accepting the Falklands environment very well. Gloucester Old Spots (GOS) are known world-wide for their outdoor capabilities, and their meat has a wonderful reputation for being full of flavour, slightly darker than most breeds and more moist. After trying it I can confirm those traits and enjoyed every morsel. If you go to a speciality butcher's shop in England you will find GOS meat (and people pay a premium price for it).

The choice to bring in Saddlebacks (SB) as well was for several reasons. One being that SB's had been in the Falklands before and had done reasonably well. It was a sort of guarantee of knowing the breed a little, whereas the GOS were sort of 'experimental'. Also, SB's are mainly black so they might be better protected from sunburn. The main reason though was to be able to cross the breeds and hopefully have more vigorous youngsters that would keep mortality down and grow quickly for the market.

When I saw the piglets, they were certainly strong and healthy. Visually, the crosses tend to have a better conformation as finished animals than the pure-breds and apart from their mixed colours can be identified by their shape. A pig novice might not unless pointed out to them (because a pig is a pig is a pig) but after a while you can see it - even I did. Raymond always has two spare pure-bred boar piglets left entire as an insurance policy should anything happen to the original boars, so not all the finished animals are crosses.

Overall, Raymond is happy with his choice of breed and the way that they have adapted here. Although they are not prolific breeders (litter sizes of about 8 to 10), the piglets tend to be big and strong from birth and mortality low. Both breeds are excellent mothers. I was in a farrowing ark with some piglets just a few days old, and the sow just strolled in to see what I was up to, laid down gently and gave her piglets some supper in the company of a complete stranger. It was this sow's first litter too!

Once the pigs are a few weeks old and are a bit braver about the outside world, there's no stopping them, and I can honestly say that I could watch them for hours, they are so entertaining. Keeping pigs requires constant daily attention with a fair amount of work involved from dawn to dusk (checking on restless sows at midnight to see if everything's going OK with the farrowing).

Unlike UK outdoor production which is only really outdoor breeding, with weaned piglets being sold for indoor intensive finishing, outdoor production on Pebble Island means 'outdoor production' from birth to slaughter. There are plenty of arks around for shelter on bad days or to get out of the sun if they want, but the pigs have the choice 24 hours a day. Anyway, I couldn't resist some photos, so here they are.

These little chaps are a few days old and not venturing outside the ark yet, but it will only be a matter of days before they do. They're quite peaceful unless you try and pick them up, at which point they 'squeal like a pig' - now I know where the saying comes from!!

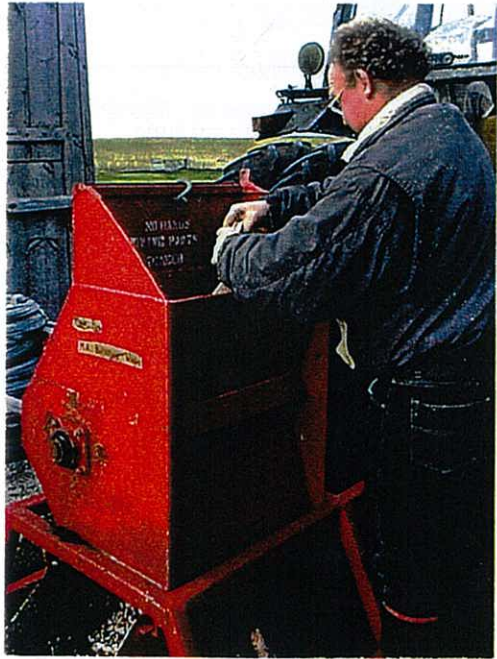




This is the same lot - I didn't realise I was 'boaring' them so much until this little fellow started to yawn. There's nothing works better than a strong hint - so I departed!!



This group of youngsters were the ones entertaining the tourists with their antics. They are still with the sows, but nip out under gates and troop around of their own free will, going back to the pens when their bellies tell them it's feed time from mum.



The pigs (particularly the breeding stock) are fed on a combination of mainly cull mutton and imported pig feed nuts and cubes. Culls are put through this 'hogger' machine which converts it from whole carcasses to a coarse mince - bones and all - so there's plenty of calcium in the diet. Finishing animals are not fed on anything but imported pig feed for the last 4 weeks.



These are some of the sows and gilts. There are 22 sows in the breeding herd, and they have approximately two litters each a year. A sow will be kept for breeding for as long as she is healthy and a good mother - that includes not becoming clumsy in her heavier, older years, as this is a major cause of mortality amongst new piglets.



DOGS

By Diana Berntsen

Now with winter approaching you should be thinking about the welfare of your dogs, and if they have sufficient access to shelter during the bad weather.

Your dogs should have access to a kennel at all times and this should have a wooden floor and be wind and rain proof.

They should be fed every day, and their water bowls should be checked to see that they have not iced over.

Cages should be cleaned regularly, and all dogs should have regular exercise daily.

I know that none of the above is impossible as I carried out all the above on a daily basis during my 2 years working at Goose Green and I owned 8 working dogs.

FROM FALKLAND WOOLGROWERS LTD

An obvious way for Falkland Islands agriculture to double its revenue is to double its wool production from 1,600 tonnes clean. Even in current market conditions Falkland Wool Growers Ltd could market many times the volume of wool per annum than at present, thus generating many times the gross revenue for farms and the Falkland Islands. The development of alternative revenue, generating profitable enterprises is to be encouraged, yet there is still great potential to increase the export revenues derived from wool production.

Potential gains from improved wool quality remain through reducing the coarse end of the clip below 30 microns and making the clip finer. There is also potential to increase fleece weights per head through objective breeding. Big gains are to be derived particularly from increasing sheep numbers shorn per hectare through grassland improvement from the 1997/98 national level of only 0.57 sheep shorn/hectare. The majority of Falkland Islands land-based agriculture will be dependent upon grassland enterprises for the foreseeable future, hence ongoing investment to improve grassland production is well targeted and has considerable flexibility in end use, thus minimising FIG's/farmer's investment risks.

At such a critical time for all farming related businesses, the pressure is not so much to find a novel, land-based enterprise but to vastly increase Camp's grassland productivity. The Department of Agriculture's research in this area must be given maximum support and research results must be conveyed to the industry and implemented as quickly as possible. All pasture based animal systems would benefit, not least the developed wool enterprise, which given its economic comparative advantages is likely to remain the best export earner for Falkland Islands agriculture for some considerable time.

FALKLAND ISLANDS COMMUNITY TRUST

From Dr Roger Diggle, KEMH

I am writing on behalf of the trustees of the Falkland Islands Community Trust to publicise the role of the Community Trust.

In 1992 Governor Fullerton set up a fund which was to meet the needs of some of the poorer members of the community who might miss out on other forms of assistance. Governor Fullerton felt that this might be because people did not understand how to apply for assistance or possibly were too proud or nervous to do so. He felt that the fund should be run discretely so that any embarrassment or discomfort was not caused to any of the beneficiaries.

At a recent meeting of the trustees (Monsignor Agriter, Reverend Alistair McHaffie and Dr Roger Diggle) the performance of the trust over the last seven years was reviewed. The trust has made a significant number of donations of money to individuals with particular needs. It is our belief that these have been conducted in a very confidential manner and indeed it was this degree of confidentiality which made us realise that in fact the general public may well have forgotten the existence of this trust. Hence I am writing to you to publicise the fact that the trust does exist and has funds which are available to help people when they are in very particular need.

Applications can be made to any one of the three trustees. Quite a significant number of applications come via the Social Welfare Department who tend to be in position of knowing who is in need. However, we are also prepared to consider applications made by third parties on behalf of someone else that they know is in need but may not feel able to apply for help themselves. Sums of money that can be made available are usually in the range of up to several hundred pounds.

Another purpose of this letter is to publicise the trust so that individuals or organisations who feel that they would like to donate money to such an organisation are aware of its existence. It is in the process of becoming a registered charity and therefore donations would be tax exempt under the current legislation.

If there is anything we can do to help the community then please do let us know.

Yours sincerely, *Dr Roger Diggle*, Chief Medical Officer.

CLOVER VERY MUCH THE TREND OF THE MOMENT

Source: *Farmers Weekly* 12/3/99

Rather like flashy trainers, satellite TV and million £ footballers, clover is becoming trendy.

Both red and white clover are becoming more popular as many producers consider including a greater proportion in grass mixtures.

Clover's renewed popularity is a good example of how science had brought practical improvements for farmers.

Promises of improved longevity and greater nitrogen tolerance mean clover may no longer be a passing fad. It could be a long term trend used to help producers cut costs on all farms.

OFFAL INSPECTING

By Diana Berntsen

I have just been summarising my data concerning offal inspecting. I note that some farms have had the recommended 100 sets of offal inspected while others have only had small amounts inspected. There are some farms which have had no offal inspected at all.

41 farms have had their recommended 100 sets of offal inspected.

20 farms have had small amounts inspected. These farms will need to have more inspected.

20 farms have had no offal inspected at all. I know some of the farms have done their culling but forgot to phone me!!! I don't mind being telephoned in the evenings as usually this is the only time I am at home. I do not mind attending on weekends and as long as I have got a couple of days notice to juggle my diary, and if need be fly to the respective farms, I can usually manage to attend.

When I attend for culling, it takes approximately 2-3 hours to open up and inspect 100 sheep, all you have to do is slaughter them for me.

Please do not hesitate to contact me when you are carrying out culling. Even if you have a small amount of offal for me to inspect when I am dog dosing, this is a start. In all the offal I have inspected to date I have only found 2 positive cysts.

My telephone number is 32296 during the evenings and my fax number is 32244, please do not hesitate to telephone.

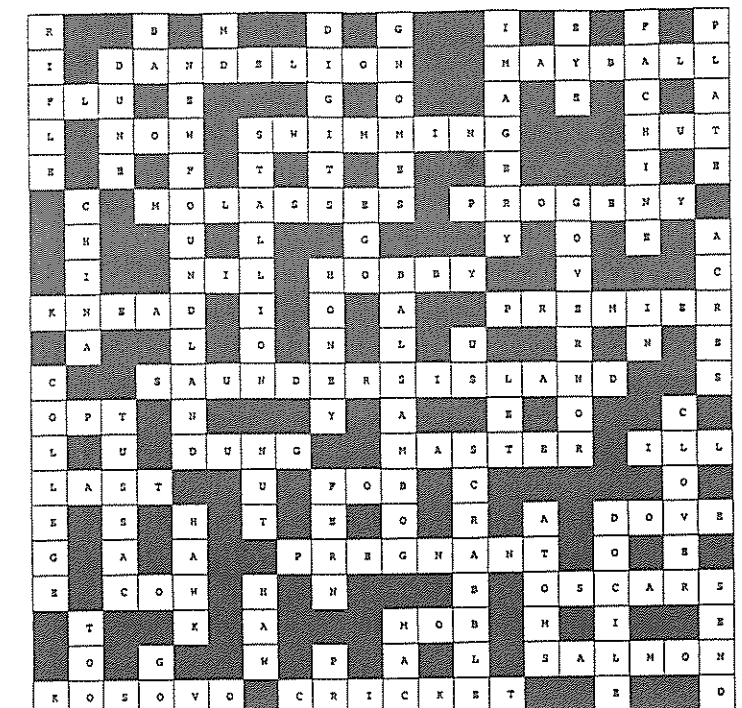
ANSWERS

TO

LAST

MONTH'S

CROSSWORD



**JUNE, JULY, AUGUST & SEPTEMBER 1999
AGRICULTURAL SHOW DATES IN ENGLAND**

Date	Show	Contact No.	Date	Show	Contact No.
June			August		
10 - 12	Royal Cornwall Show - Wadebridge	01208 812183	2	NSA Wales & Border Region Early Ram Show	01291 673939
10 - 12	South of England Show - Haywards Heath	01444 892700	4	North Devon Show - Barnstaple	01769 560205
18 - 20	Three Counties Show - Malvern, Worcester	01684 584900	4 - 5	Bakewell Show - Bakewell, Derbyshire	01629 812736/7
18 - 20	East of England Show - Peterborough	01733 234451	5	Honiton Agricultural Show - Devon	01404 891763
18 - 20	Essex County Show - Chelmsford	01245 362412	7	Brecon County Show	01586 708760
22 - 23	Cheshire County Show - Tabley	01829 760020	7	Dumfries & Lockerbie Show - Dumfries	01461 203551
23 - 24	Lincolnshire Show - Grange de Lings	01522 522900	10	Taunton Agricultural Show	01823 421860
24 - 27	Royal Highland Show - Ingliston, Edinburgh	01313 356200	10 - 11	Anglesey County Show	01407 720072
30	Royal Norfolk Show	01603 748931	12 - 13	United Counties Show - Carmathen	01267 232141
July			14	Orkney Agricultural Show	01856 771441
1	New Costessey, Norwich	01603 748931	17	NSA South West Region - Ram Sale	01392 276404
5 - 8	Royal Show - Stoneleigh	01203 696969	17 - 19	Pembrokeshire Show	01437 764331
13 - 15	Great Yorkshire Show - Harrogate	01423 541000	19	Denbighshire & Flintshire Show	01352 712131
15 - 17	Kent Show - Detling	01622 630975	26	Monmouthshire Show	01291 691160
17	Caithness County Show - Thurso	01847 831614	26	Melpash Show - Bridport	01308 423337
17	Cumberland County Show - Carlisle	01228 560364	28	Dufton Agricultural & Sheep Dog - Penrith	01768 362015
19 - 22	Royal Welsh Show - Builth Wells	01982 553683	September		
21	Driffield Show - East Yorkshire	01377 257494	2	Buckinghamshire Show - Aylesbury	01296 483734
24	Mid Devon Show - Tiverton	01884 821815	4 - 5	Dorchester Show	01305 264249
24	Penrith Show - Penrith	01931 713325	4	Moreton in the Marsh Show - Gloucester	01608 651908
27 - 29	New Forest & County - Brockenhurst	01590 622400	7	NSA Ram Sale - Thame	01263 761666
28	Cardigan & District Show - Cardigan	01239 615438	9	Westmorland County Show - Kendal	01539 567804
28	Nantwich & South Cheshire Show	01270 780306	16	Thame Show - Thame, Oxon	01844 212737
29 - 31	Welsh National Sheep Dog Trials - Clwyd	01824 704152	16	NSA Northern Ireland Region Ram Sale	01820 650436
30 - 31	Border Union Show - Kelso	01573 224188	17	NSA Eastern Region Ram Sale	01263 761666
30 - 1	Royal Lancashire Show - Blackburn	01254 813769	20	NSA Wales & Border Region Main Ram Sale	01291 673939

CONDITION SCORING SHEEP

By Robin Thompson

This is the second of two articles on condition or fat scoring. The principles are the same for sheep as for cattle but unfortunately the scale is different.

Why condition score sheep?

Developing sheep condition scoring skills allow managers to:

- Improve the allocation of pasture resources to stock
- Establish market suitability of sheep for slaughter
- Have a common language for discussing sheep condition

Condition vs Weighing

Management recommendations based on liveweight rather than condition score are likely to be erroneous because at any level of fatness liveweight of a sheep can be significantly affected by breed, weight of the fleece, water content of the fleece, gut fill, pregnancy status and age.

How to condition score sheep

Figure 1 shows the standard site at which the condition score observation is made. The aim is to feel the backbone with the ball of the thumb and ends of the short ribs with the finger tips. Observations here should be confirmed by feeling the degree of cover over the long ribs at the so called GR site (midway down the 12th rib). Condition scores are expressed on a scale of 1-5 to depict increasing fatness. Table 1 shows sheep condition scores and their interpretation.

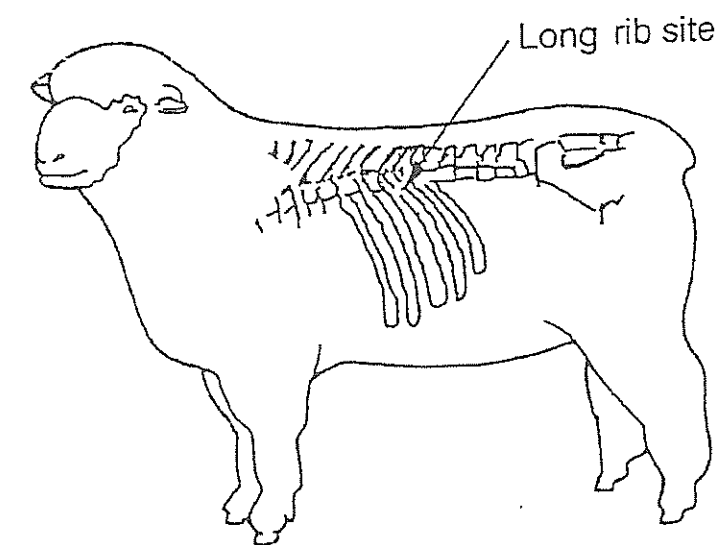


Fig 1. Location of the preferred condition scoring site on a sheep.

Table 1. Sheep condition scores

Score	Site assessed	Description	Consequences
1	Backbone Short ribs Long ribs	Prominent and sharp Sharp ends Individual ribs felt easily	Survival and production threatened
2	Backbone Short ribs Long ribs	Prominent, feel between vertebrae Rounded at ends Individual ribs felt	Store condition, Ok for wethers and end of lactation ewes Light lambs marketable
3	Backbone Short ribs Long ribs	Felt as a line of bumps Rounded, some pressure needed to feel end Feel individual ribs and tissue	Marketable lambs Ok for lambing ewes
4	Backbone Short ribs Long ribs	Firm pressure to feel hard line Difficult to feel Just feel individual ribs	Lambs too fat for slaughter Ok for mating ewes
5	Backbone Short ribs Long ribs	Cannot feel Cannot feel ends Ribs barely felt, tissue movement very fluid	All animals over fat Look at stocking rate

TWO MORE SHELTERBELTS PLANTED.

by Aidan Kerr

As many readers may know we were busy in the Port Howard area recently, where we successfully prepared and planted two shelterbelts on Clippy Hill on Port Howard Farm, and in South Flats on Bold Cove Farm.

The task was quite a logistical challenge which began last year when we first chose the sites with the guidance of Rodney Lee, Jimmy Forster and Alan Low (our Forestry Consultant). Since then, trees were ordered and grown by Shallow Harbour Farm and Stanley Growers Ltd, and shipped by MV Tamar, as were many other materials. More recently a hard-working team from the Department, assisted by many from both farms and others ripped, ploughed and rotavated the ground, mowed and sprayed the vegetation, erected various fences and shelters, bored about 7,000 planting holes, and finally planted about 6,200 trees. Needless to say many meals were cooked and people accommodated too.

These two shelterbelts will probably be the last (for the foreseeable future and budgets!), in a series of trials across the islands designed to test and demonstrate a suitable range of ground preparations, planting techniques and tree types for shelterbelts. The information resulting from this research will benefit all those interested in growing trees in the islands.

The two sites are only about a mile apart but are very different and will provide a valuable contrast in tree-growing conditions. The Bold Cove site is on an easterly facing ridge with shallow peat over clay. The vegetation was shrubs, mainly Diddle-dee interspersed with small 'greens' and Whitegrass tussocks. The dry soil was quite workable, a difference that was much appreciated by our planters! In contrast the Clippy Hill site was covered in thicker Whitegrass and was much wetter due to the generally deeper peat and drainage from the higher ground. So much so that the recent heavy rains had filled many of the holes with water! Thus the soil was sticky which made back-filling and firming up difficult for our planters - who coped admirably given the horrible working conditions there. However we may be able to complete the back-filling in early Spring when the ground dries out more. Anyway the extra moisture in the holes may benefit the trees during drier periods.

Many were involved, if only in a minor but important role, and your assistance is much appreciated. I would like to especially thank the following people and bodies:

all DoA staff involved; Grant for much of the earlier preparations, Tim for a 'boring' job well done, the 'planters' Sarah, Marie, Gillian, Derek, and Gordon - not forgetting Lilian and Glynis who coped well but who may not be as eager to volunteer for tree-planting again! Jimmy and Rodney and everyone from both farms who assisted, especially Ginny and Carole for the much needed sustenance and warmth, not forgetting Neil and Simon for on-site support; Ali and Marlane Marsh and Tim Miller and staff for the trees; FIGAS, Bill Pole-Evans and Byron Marine Ltd for getting us and everything there and back.

Don't forget there's 'a few' more to be planted next year - volunteers are welcome!

INVITATION TO AN AMERICAN HORSE TRAINER

From Jane Cotter

I am writing to you to try and gauge what support and interest there would be in inviting an American horse trainer to the islands in early 2000. I know Mr Len Yule and have seen him work with horses in the U.K. He works in a similar style to Monty Roberts, with whom your readers may be familiar. He has been working with horses for over 30 years and I believe has a lot to offer. He also makes saddlery to order.

I have spoken to Len recently and he is interested in principle in coming for a couple of weeks.

He usually runs clinics involving horses and their riders working under his instruction and prefers to work groups of around 6 at a time. This ensures that riders and their mounts gets good attention. Ideally he prefers to work in a round pen about 45' diameter but can improvise. He feels that the ideal would be to work for a few days with the same group but is prepared to be as flexible as is possible. He would be able to undertake demonstration clinics. He may also train individual horses for people on a private bases if required, and time permitting.

Basically it sounds as if he is open to suggestion and demand.

- I have approached the Shackleton Fund for sponsorship and they have asked for a detailed schedule for his trip.
- I am asking for feedback from any riders, horse-owners or those interested as spectators.
- I would like to ascertain what support there would be for this enterprise. Would people be prepared to accommodate Len in their homes? Are there any people able to help with sponsorship or fund raising?
- I would appreciate constructive advice and comments on this whole project, and specifically on the best timing for this to take place, so that as many interested people as possible can be included.

Prompt responses would be appreciated so that a plan of this visit can be outlined.

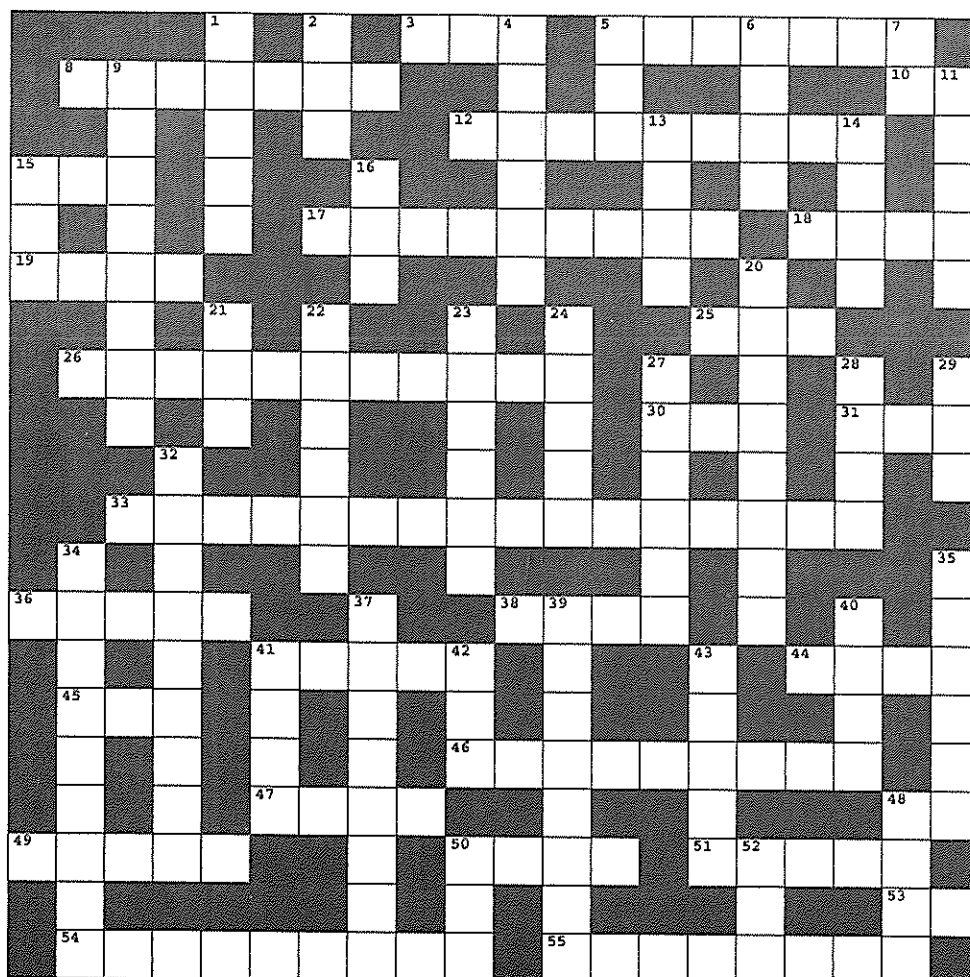
Please contact Jane on telephone: 21792 or fax: 22147

WANTED TO BUY

Up to 20 - 25 weaner calves annually.
Please contact: Tony and Jenny Anderson
Smylies Farm. Telephone/fax No: 41013

JUNE'S CROSSWORD

115

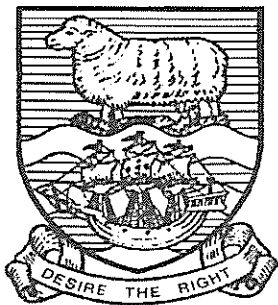


ACROSS

- 3. BRITISH ANTARCTIC SURVEY
- 5. THE ISLANDER CAN MAKE YOU THIS IF YOU ARE A BAD TRAVELLER
- 8. FARM WORKHORSE
- 10. MYSELF
- 12. AGRICULTURAL PUBLICATION
- 15. DONKEY
- 17. MODERN TECHNOLOGY
- 18. CHEMICAL FOUND IN URINE
- 19. NOT SOFT
- 25. VERMINE
- 26. JULY EVENT FOR THE RURAL SECTOR
- 30. EGGS
- 31. ON ITS OWN
- 33. GOOD LOCAL SOURCE OF CALCIUM
- 36. A LENGTH OF GRASS
- 38. RENDERED FAT
- 41. A PERENNIAL WOODY PLANT
- 44. PRODUCE OF SHEEP
- 45. COW NOISE
- 46. SAY SORRY
- 47. POTATO
- 48. CARRY OUT TASK
- 49. RECORD OF DAILY EVENTS
- 50. VOICE A PRICE OF MUSIC
- 51. HORSE STUD IN STANLEY
- 53. AFTER CHRIST
- 54. COLD SWIM TIME
- 55. WATER SPORT

DOWN

- 1. THEATRE PERFORMER
- 2. SMALL DRINK
- 4. JAPANESE COMMANDER IN CHIEF (4X4)
- 5. LEATHER WORKING TOOL
- 6. PLANT GERM
- 7. KILOMETRE
- 9. FRONT ROAD IN STANLEY
- 11. PORT SITUATED SW FALKLANDS
- 13. SHIPPING HARBOUR
- 14. MALE PARENT
- 15. HARDWOOD TREE
- 16. FIG
- 20. SITE OF OLD RUINS AND NSF HOME
- 21. UNIT OF CURRENT
- 22. EXOTIC FLOWER
- 23. SEXUAL CATEGORY
- 24. ANIMAL HIDES
- 27. FAMOUS DUCK
- 28. COVE NEAR PORT HOWARD
- 29. EGG LAYER
- 32. COMMON 4 X 4
- 34. LIGHT METAL
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PLUS ALL THE REGULAR FEATURES AND MORE!

*The Wool Press is published by the Department of Agriculture. Editor: Mrs Charlene Rowland
Telephone: 27355 Fax: 27352 or e.mail: doa.fig@horizon.co.fk*

EDITORIAL

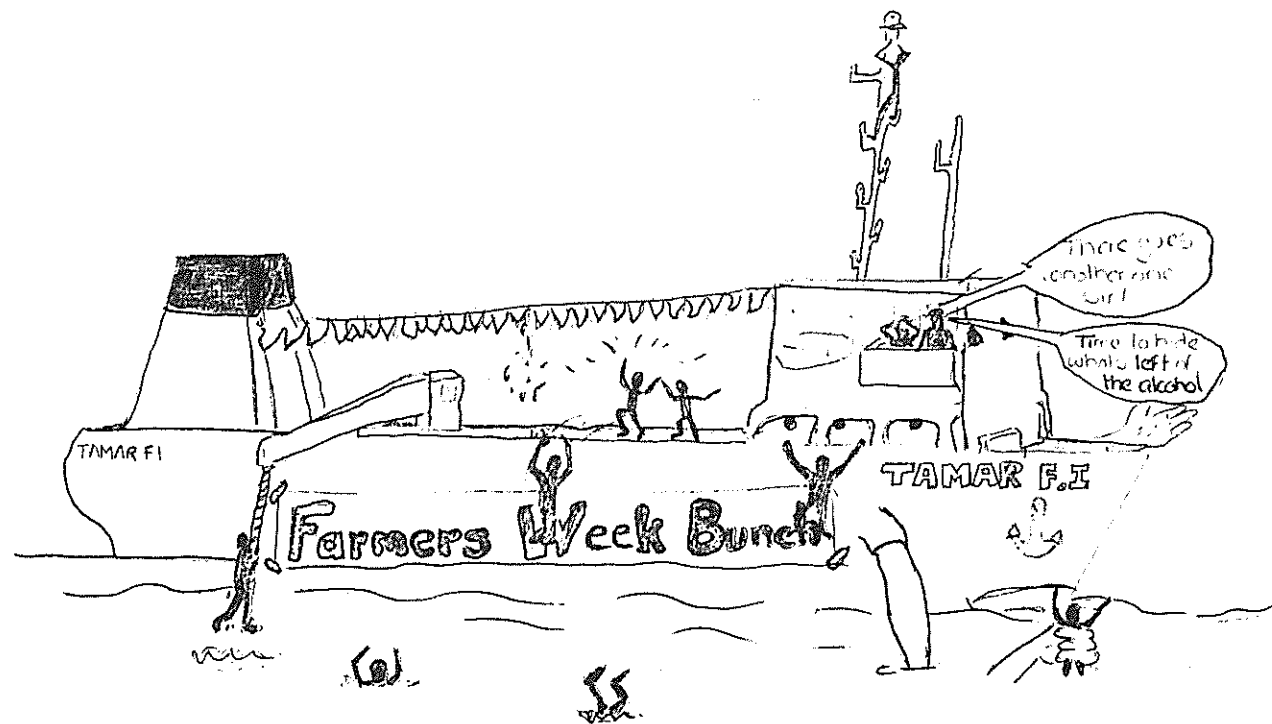
The Department of Agriculture would like to express its thanks and say goodbye to Robin Thompson. Robin has made quite an impact on Agriculture in the Falkland Islands and we all appreciate his hard work and effort over the past 2½ years.

Another Farmers Week is over. It was good to see you all again. We hope that all those farmers who attended the various workshops/displays etc., found them beneficial.

Our Youth Training Scheme has started again after a long period of not having any school leavers wanting to join. Nathan Browning took up the position at Shallow Harbour and is going to be working between there and Philomel Farm. Hopefully we will have another two youngsters joining in the Millennium. If you would like to be a host farm or would like more details, please give Mandy a call.

The Farm Management Handbook is finished and at the printers. It will probably be another week before you will receive it. Enclosed with this "Wool Press" is an updated Information Leaflet which we hope will be of help should you need to discuss anything specific with someone in the Department.

Quite a few people are on holiday this month. Owen, Maggie and Derek are all off on overseas leave, Maggie will also be attending a study week as part of her Open University course. Doug should be back to work around the 19th July after a well earned rest.



THIS MONTHS CONTRIBUTORS

Cameron Bell Veterinary Officer	Peter Marriot Falkland Wool Marketing
Robin Thompson Beef Specialist	Derek Clelland Laboratory Technician
Charlene Rowland Snr. Agricultural Assistant	Aidan Kerr Senior Scientist
Bob Reid Director of Agriculture	

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WELFARE OF CULL SHEEP

By Cameron Bell

Several recent incidents have highlighted the need to maintain adequate welfare standards for cull sheep, particularly over the winter period. Standards should not be dropped simply because this animal class is of no use any more. This is just common sense, but several things should be remembered. These are based on the Code of Practice for the Welfare of Sheep.

(1) Food and water

All sheep should have access to a diet which should at least maintain body condition and meet the appropriate requirements to withstand cold exposure. Sheep should also have access to water, and should not be deprived of water for more than 36 hours, (this period is reduced in hot weather), whether this is in camp or in sheds/pens.

(2) Body condition

The minimum condition score of any sheep should be 1.5 (i.e. score 1.0 means no body fat). Scores below this suggest that sheep may not survive, particularly during a spell of cold weather or if nutrition is limited. This should not be disregarded in cull sheep. Refer to Robin Thompson's article in the June 1999 Wool Press regarding sheep condition scoring or contact me for a copy of diagrams and minimum scores pertaining to sheep condition scoring.

(3) Shearing

Shearing of sheep is permitted from 15th October to 15th March using standard combs. Cover combs may be used from 15th September to 30th April. That is to say, **shearing should not occur between 30th April and 15th September.** The only shearing permitted between these two dates is of sheep to be slaughtered off shears. Slaughter should preferably take place within 2 hours if the animals are not penned in a shed and within 24 hours post shearing if the animals remain in a shed.

So, sheep need to be in a reasonable condition in autumn if they are to be kept over winter for culling (e.g. for pig feed). The stocking rate and grazing pattern in summer are probably the most important factors in determining body condition in autumn. Alternatively, if the cull sheep are not needed over winter, then select animals on the basis of age, teeth, condition etc. and cull them in autumn.

Animal welfare considerations are not about being dogmatic. But they are about maintaining an acceptable standard that (i) protects the welfare of animals, (ii) provides a 'yard stick' or a common goal and (iii) allows us to meet the requirements of countries we are exporting animal products to.

A PARTING WORD (OR TWO)

By Robin Thompson

The final act of many contract workers is to prepare the seemingly obligatory post mortem of their activities undertaken during their contract. This can be the means of justifying one's existence, giving a dose of 'feel good' medicine to the locals or a chance to fire a few departing shots. I hope this short dissertation does none of these things but rather can serve as a vision for the continued development of Falklands Agriculture.

I believe Falklands Agriculture is on the brink of a very exciting and potentially prosperous time but in order for this to be realised generous inputs of enthusiasm, resources and imagination, particularly from outside the 'nine dots' will be imperative. Everyone has these ingredients but the will must be there to focus and channel them in the desired direction and of course preparedness to take a chance.

The greatest asset of the Falklands is its image of clean, green, wild, free and natural. Emphasis of these currently 'very trendy' attributes in marketing programmes for whatever products are produced are likely to make them instant winners. Marketing programmes are often more sophisticated than the products being promoted. Smart marketing has been successful in selling seemingly unpopular products such as air in a can and green hairy gooseberries, so it can be done but someone is desperately needed to drive it.

Animal production in the Falklands, as in any location, is primarily driven by feed quality and quantity. This has been well recognised here and many of the factors limiting its production have been identified and are in the process of being minimised. This technology will revolutionise animal production in the Islands provided it is adopted on a scale large enough to have a significant impact on the enterprise of which it is a part. A few hectares of improved feed on a property running thousands of animals is essentially a waste of time so try to think and act on a scale that has a chance of making a difference.

For the foreseeable future sheep will remain the dominant animal husbandry on the Islands as it is the only species which is available in commercially significant numbers. The challenge is to use them and their products to generate more money. There is a number of ways to tackle this including breeding, feeding, marketing and new products. Improved feeding has the potential to result in the greatest production increases in the short term by allowing the genetic potential of the animals to be expressed as well as by increasing stocking rates. Breeding progress will always be slow but in the long term will ensure production gains can be continued so more efficient breeding schemes should be started immediately. These must be based on quantitative selection methods, large ram breeding flocks, minimised generation intervals and clearly defined, achievable breeding objectives.

I believe the marketing strategy for Falklands wool needs a serious overhaul. Possible strategies including pre-shipment testing and direct shipping to customers consignments comprised of wool produced by a number of properties and combined to suit market requirements. The costs associated with testing and marketing Falklands wool are very high on a world scale which is of course the scale on which our competitors are working, so they must be reduced. The strength of our wool must be increased through better feeding and management so the processing quality and hopefully price increases.

The abattoir will potentially enable meat products to enter almost any world market but we must keep our size in perspective and produce unique products for which customers are prepared to pay a premium. Lamb production could begin with next year's lamb crop but sufficient feed must be first available to ensure the required carcass quality. It is always tempting to bring in something new from elsewhere in order to make a change or a project succeed, so I counsel that the ability of the animals we already have to produce lamb carcasses be first assessed before spending large resources importing alternative breeds. At the risk of repetition it must be remembered that no breed will perform to its genetic potential unless it is well fed so breeding will not substitute for inadequate nutrition.

Beef production has a long term future provided the industry increases with the market and produces quality animals. Again improved feeding and breeding towards a beef type animal will ensure the future, provided producers treat beef production as a serious enterprise.

Emerging or potential animal industries will remain just that for the foreseeable future but unless a start is made now sufficient production will never materialise to constitute a serious industry.

The Islands are rich in natural resources including sea weed, peat, moss, geese and maybe even rocks but they all require imagination, commitment and a serious business approach to develop them into products consumers want to buy. Perhaps one of the missing links in the Islands is local opportunity for individuals to gain enterprise development skills. I was involved in such a process and regard it as one of the most rewarding years of my professional life.

Change is inevitable. Very few of us like it but individuals should take a proactive attitude towards it rather than a reactive one, which often results in the changes being seen as unnecessary or wrong. Consequently the change process and development is slower. I can see the system of agriculture changing from ranching to farming with emphasis on production per area of land. The most successful sheep farmers in Australia are those with the highest productivity per hectare.

Unfortunately there will be casualties of change probably in the form of individuals leaving farming as businesses are forced to become more economically self reliant and independent of Government. Such casualties are occurring right throughout the world agricultural sector so they are not unique to the Falklands. A number of innovative industry restructuring models have been developed in other countries and similar initiatives need to be undertaken here so as redundant farmers can leave the industry with some dignity but not with a large golden handshake. This issue needs wide industry debate but action must follow so as slow painful deaths are avoided.

Tough economic times can cause re-evaluation of the direction that businesses and lives are taking and may result in the adoption of new directions and ideas. Certainly the incentive scheme encourages this but success will only be achieved if the new directions are well researched and truly reflect one's business and personal goals. I suggest anyone contemplating a major business management change such as intensive pastures and grazing management spend some time working in a business that has already encompassed that change. This may well mean going somewhere else but will ensure that the individual is well informed and has a better chance of success. Making the rational decision not to progress an idea after some first hand experience should be seen as a positive having prevented the wastage of resources. Gaining appropriate hands on experience should be a mandatory component of the incentive scheme.

Falklands Agriculture and the Department of Agriculture will be exciting places to work in the next few years and I regret having to look from the side. Over the last couple of years a plan has developed to provide future directions for agriculture in the Islands. This plan although not cast in concrete should be independent of the short term whims and pet loves of present and future incumbents so as the long term vision for agricultural development is not deviated from. I do not believe the Department of Agriculture or the country can currently afford pure research programmes but rather must be totally development and extension focused. Falkland Island farmers do not appear to have a high expectation of their extension service but in the future when technology change is rapid the service must change dramatically to one providing planned integrated programmes. Such a change needs to be driven by the customers as much as the providers.

The Saladero / Brenton Loch resource has the potential to make a huge contribution to Falklands Agriculture but if this is to happen it must progress from just being the home of the Polwarth flock and beef herd. This resource offers the opportunity to research, develop and extend new technologies and industries on a significant paddock or farmlet scale. The risks should be taken there, and new ideas evaluated with management not being afraid of having a failure. Such activities need to be driven by both departmental staff and their farmer clients working together with regular formal and informal interaction. In order for such a proposal to succeed to potential, a larger core of professional and technical staff must live and work in closer proximity to the farm. I am totally convinced that the beef project could not have been developed to it's current state from an office in Stanley.

Falkland Landholdings is a fantastic resource, which has the potential to be at the forefront of new and improved agricultural pursuits. Unless this resource starts being used on a large scale to the advantage of the country's agricultural industries there is little justification for Government to continue with ownership.

The most difficult phase of change is recognising the need to change and starting the process. This has largely been done here but the momentum must be kept going. Irrespective of the nature of agriculture in the future it is imperative that it be undertaken at the level of world's best practice and if possible raising the benchmark. Achievement of this will ensure the Falklands and the products produced are recognised at a level much greater than the scale on which they are produced.

I have completely enjoyed the challenges, hospitality and mateship of working in Falklands Agriculture during the past two and a half years and I thank you all for letting me share your world. I wish you all success with your future endeavours but remind you to 'grab your dream and go for it now' because if you don't someone, somewhere else will and tomorrow will be too late.

Should anyone be visiting Australia we would love to extend some Aussie hospitality to you or if you think I may be able to help in the future don't hesitate to contact me at the following address.

Robin & Glenys Thompson

PO Box 105

Scottsdale, Tasmania, Australia 7260

Telephone 61 3 63522783 fax 61 3 63524277 e-mail I'll let you know!

BRINGING HOME THE BACON

Source: Smallholder - May 1999 by M.D. Jackson

There are two, may be three reasons for making bacon. The first is to preserve meat without freezing. This is the traditional method of preserving it. The second reason is the taste, which blends into my main reason, we aren't keen on belly pork but all like flitch bacon.

I use a simple method which I was taught by a Great Aunt of mine. You first get your flitch, or what the Americans describe as pork bellies. I'd advise you to get them boned out before you start. We fatten a few pigs for freezer sales and home consumption and I get whoever butchers them to debone the flitch while they are at it.

From a seventy kilo pig each flitch weighs about 7lb. (remember you get two, one from each side) I have a truly sophisticated set up for curing it. I have a baking tray (one of the grill type which you put cakes on to cool after they come out of the oven) and a plastic baby bath.

The first stage is to make sure your flitch is properly dry. I wrap it in an old towel and generally rub it down. Once dry put it on your mesh tray and prepare your cure mixture. I just mix two parts of salt to one part of brown sugar. Some people add a little saltpetre as well but I've never bothered. I mix this in a breakfast cereal bowl (I told you this was a sophisticated system) and then go and watch the TV with the flitch perched on my lap.

Choose a half hour TV show and whilst watching it rub the cure mixture into the flitch, both rind side and meat side. This will probably take most if not all of your breakfast cereal bowl of cure. Place the mesh baking tray over the baby bath in a cool (but not freezing) place and leave for twenty four hours. Quite a lot of liquid will drain out of the flitch. On the second night you have another go at rubbing your cure mixture into the flitch. This time you only take five minutes and about a third of a cereal bowl of cure. From then on every other night you just rub another handful into the flitch taking no more than a couple of minutes, leaving the flitch to drain between times. All in all I get through about two and half cereal bowls full.

Finally, after a fortnight you are finished. If you have a really thick piece of flitch it might take a week longer but you can tell when it's done because the water stops coming out. When this stage is reached, put the flitch into the sink and wash off any cure mixture still on the surface. I actually scrub the rind with a brush, scrubbing the meat side merely gums up the bristles so I rub it firmly over with my hand whilst the flitch is under water. Then dry the bacon (because that's what it is by now) in the old towel and hang it up to drip dry over night. At some point next day take the bacon down and roll it as you would a swiss roll. Tie it tightly and hang it back up again somewhere reasonably cool. It is now ready and you can cut rashers off it with a sharp knife any time you want some.

When you cook this bacon you will notice two things. Firstly this is bacon with pride. It doesn't shrivel up in the frying pan and slink off behind the mushrooms to hide. The rasher is the same size when it comes out as when it went in. This is because you haven't pumpled it full of water. (Always more money to be made selling water than selling meat). The second thing you will notice on eating. It will taste salty. Probably more salty than the bacon you buy. However, in spite of this it has been my experience that while you taste the salt, it doesn't make you as thirsty as some bought ham can. Also the sugar does definitely add that certain something.

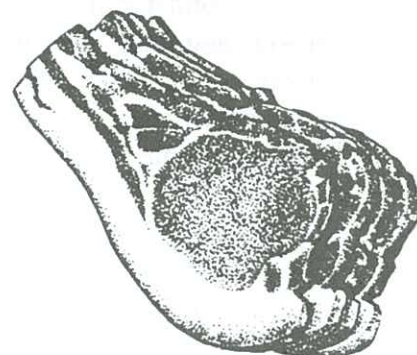
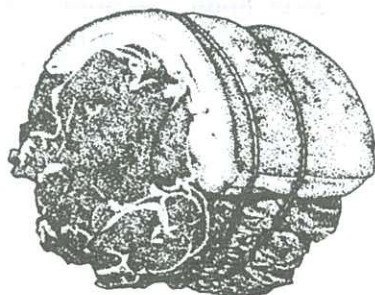
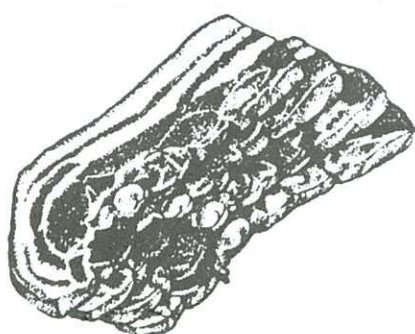
For those of you who at one time do a lot of cure I have seen it suggested that you apply the cure at rate of half an ounce per pound of fresh flitch. If you are short of equipment to weigh both the ingredients and the flitch you can put the cure on by sprinkling the skin side and by rubbing the sides and meat side well with the cure. Hold the flitch on edge and tap gently on table to remove excess cure. The amount left applied is supposed to equal about half an ounce per pound. You then place the flitch somewhere where it can easily drain and leave it for a week in a cool environment. Then just wash off, dry and roll as before. Interestingly enough in some places flitch bacon isn't rolled, it is hung flat and just sliced as it is. I find that rolling it makes it easier to get a controlled slice.

Ideally all this curing is done somewhere that is cool and odour free so that the bacon isn't tainted.

A simple way that I've never tried but had referred to me by those who swear by it is merely to cure in brine. To make your brine mix one part of brown sugar to four parts of salt. Add a sprinkling of saltpetre if you want. Add this mixture to water and boil, stirring to make sure the sugar is dissolved. When everything has dissolved, skim off any scum you may or may not get and cool the brine until it is chilled. For proportions you want one part of salt to 48 parts of water. Choose a large container which you can close. Put the meat to be cured in the container, packing it as tight as possible. Pour your chilled brine into the container until all the meat is covered, then put a lid on in such a way as it holds the meat under the brine. You might need to have an extra plug or something to do this.

According to my experts, bacon and loin (reasonably thin cuts) need two days per pound in the brine, shoulders need three days per pound and hams four days per pound. Once the meat is ready soak it in warm water before washing vigorously in cold water then hang up to drain for at least twenty four hours. I suspect that this method is fine if you are doing whole pigs, but for those just doing a flitch at a time the dry cure method is as good as anything.

Anyway good eating and a hearty breakfast to you all.



LITTER - A DANGER TO LIVESTOCK

This hogget was found at North Arm in Cheroogs Corner on the 7th May, 1999 by Eric Goss and Don Naylor.

This hogget managed to get a can of Fosters stuck to his lip.



WANTED

WORK EXPERIENCE PLACEMENTS FOR STUDENTS FROM OCTOBER TO END OF SEASON (OR THEREABOUTS)

I have had an enquiry from a young farmer in Scotland who would like to spend a season in the Falklands during his year out.

GAP has also approached us again and we are looking for placements for two students for that organisation.

Please contact Mandy at the Department of Agriculture as soon as possible if you are interested or want more details so that these young people can try elsewhere if they are unsuccessful in finding a placement here. Remuneration negotiable.

SHALLOW HARBOUR TREES

By Charlene Rowland & tree data provided by Aidan Kerr

Recently I visited Shallow Harbour farm to help settle Nathan Browning on the Youth Training Scheme.

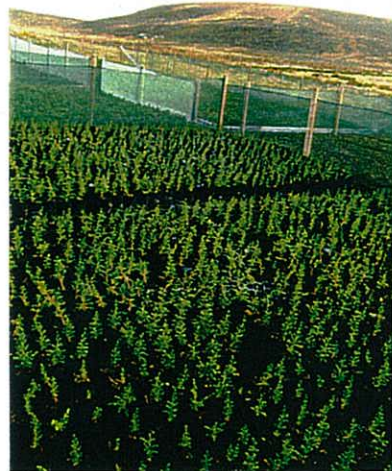
Whilst I was there I took the opportunity to investigate all these rumours I had heard about tree growing. What a pleasant surprise I got when Marlane took me to her nursery and showed me just how many trees she and Ali have planted. There must have been well over 50,000 trees all standing in lines like soldiers on parade.



Part of the nursery at Shallow Harbour Farm

They began selling to Stanley and Camp in winter 1998 and to date have sold over 4,500 trees such as Radiata pine, New Zealand Bishop pine, Macrocarpa cypress, Alaskan Lodgepole pine, Austrian pine, Eucalyptus, White Spruce and Willow.

Last month the Department bought 2,300 Radiata and Macrocarpa trees from them. They were planted in the Port Howard, Bold Cove and Saladero shelterbelts.



Macrocarpa trees in the nursery

The method of tree growing that Marlane and Ali have adopted is based on the advice given by Aidan and Alan Low (DoA Forestry Consultant). Once all the trees have been planted in the greenhouse in September they are left to grow to about 3 inches. In December they are taken out of the greenhouse and left to "harden off".

Shelterbelts are also being established at Shallow Harbour. Marlane and Ali have started to plant several sites with various types of trees to see which one will be the best for their farm. In all they have planted approximately 1,200 trees.

In April 1997 the Department planted a shelterbelt with 2,000 Lodgepole pine near the airstrip. To date this shelterbelt has established very well as can be seen from the data in the table below.

Type of Lodgepole Pine	% Survival to April, 1999	Average height (cm)	Length (cm) of leading shoot
Skagway, (Coastal Alaska)	96	31	11
Skeena River, (British Columbia)	74	22	7



Skagway Lodgepole pine in the windward rows



Skagway Lodgepole pine sheltered but not smothered by grasses



Tree nursery at Shallow Harbour farm



Radiata pine <1 year old. Ready for sale!



**'THE MAKING OF MT. KENT FARM'-
SOME BENEFITS OF RESEEDING.**

by Aidan Kerr, Carol & Terence Phillips

Carol and Terence Phillips, who farmed Mt. Kent Farm, Green Patch from 1980 to 1989, believe the 'two- pasture system', which combined reseeded pasture with more intensive sheep management, was for them 'the making of the farm'.

The two-pasture system was established in co-operation with the Agricultural Research Centre (ARC). The main aim was to demonstrate how the system could improve the production of young sheep. The system adopted was the culmination of earlier agronomic trials on small experimental plots, such as at the Camber and Fitzroy and on fifty acre reseeds, such as at the Ronda, near Salvador. There, in each of four years, a two pasture system had consistently reared about 30% more lambs than traditional systems.

Following that the ARC needed to assess the 'combined effect of using the reseed for ewes in the spring and hogs in the autumn'. The system would also try to control parasitic worms and measure the benefits of the changes on the whole farm. Given the current interest and thrusts in pasture improvement we thought it prudent to publicise some of the benefits that were achieved.

The 11 ha (27 acre) reseed was established in 1984-85 by the well developed method of shallow rotavating a relatively moist area of Whitegrass camp, burning the trash, and rotavating again to produce a fine seed bed. A mixture of seeds, mainly Cocksfoot, Fescues and Bent grasses, was broadcast in late summer and the area fenced off. The seeds were harrowed in and rolled firmly. The emerging grass was fertilised in the following spring and left to seed and grazed lightly in the autumn.



Part of the Mt. Kent reseed.



Hoggs "belly-deep" in the reseeded grass.

In the second Spring the fully established reseed was grazed by 200 ewes and their rams from tugging until the grass had been well eaten down in late Winter. The grass was given a short break from grazing from early September, during which it was fertilised with nitrogen at about two bags of Nitram per acre (85 kg N/ha). The ewes returned in mid-October to lamb - a little later than usual to coincide with grass growth. The ewes and lambs grazed the reseed until just before Christmas when the lambs were marked. The same dressing of fertiliser was then applied to boost grass growth in summer prior to stocking with 300-500 weaned hogs from late January until March/April.

Not only did the improved pasture on the reseed, alone, increase lamb marking percentages by 45% it also allowed those of the ewes grazed in the Green Hill nearby to improve 21%, by helping to reduce the grazing pressure there. While not strictly comparable, due to the different periods and camps involved, the two pasture system produced on average 74 or 22% more lambs and generally showed what could be achieved. Additionally, the reseed-fed hogs were bigger and healthier at weaning and before Winter although this advantage was lost by first shearing, as they were grazed on unimproved camp over Winter and Spring. Further trials were conducted successfully elsewhere aimed at maintaining the gains made by reseed grazing.

	Average marking %	Average number of lambs weaned
1980-85 Traditional Mt. Kent systems	43	333
1986-88 Green Hill camp	64	236
Reseed	89	171
Combined 2- pasture system	76	407

Encouraged by the results on Mt. Kent Farm, Carol and Terence have continued with their reseed work since they moved to Hope Cottage Farm, near Douglas. In the last two years 25 acres have been established in Chata Rincon ewe camp and another 27 acres were seeded there in February. Eventually, they expect to reseed 132 acres which will help them to increase their flock by 800-1000 sheep.

PS. Unfortunately it has been difficult to find details of the ARC work on the Mt. Kent reseed in DoA's archives. If anyone has a copy of a report on the work lurking in their files Aidan would like to borrow it! Please contact him.

REMINDER

ANNUAL STOCK RETURNS FOR 1999.

IF YOU HAVE NOT YET FILLED IN YOUR ANNUAL STOCK RETURN FORM, PLEASE DO SO AS SOON AS POSSIBLE. THE SOONER I HAVE YOUR FORMS THE SOONER I GET THE PUBLICATION TO THE PRINTERS.

**LETTER FROM PETER MARRIOT OF
FALKLAND ISLANDS WOOL MARKETING**

Dear Friends,

For the first time since 1979 (my first visit) I am unable to be with you all in the Islands this year. The reason has already been explained, but I would not wish Farmers Week to finish without some comment from me.

This season has been the most difficult that I have experienced since my initial introduction to the Islands over 20 years ago. We have seen many changes in the last 12 months, both in the UK and abroad. Clients have disappeared or merged, combing and scouring plants have closed down etc., and even when business has been concluded neither you, I or the clients have been really satisfied with the remuneration following the booking of the order.

However, I wish to assure you all of my undivided attention in the seasons ahead. We still have many, many clients who are surviving and certainly will continue to do so in the future. It is a fact that the strong will survive, and after this period the remaining clients could all be in a better and stronger position to meet the challenges ahead. In addition we are monitoring constantly all wool areas looking for new clients, together with new markets, on your behalf.

I can assure you that our young marketing team are here to stay and looking forward to the future. I do believe if we dare look ahead the bottom of the market has been reached, and as a company we look forward with more confidence than recently.

What you can be assured of is that I am working 100% on your behalf to secure the best possible deal for all farmers. If we all work together I am sure we will succeed.

Looking forward to my next visit to the Islands.

Regards *Peter*

We are looking to upgrade our water supply to support our Incentive project. Even with 2,500 metres of alkathene pipe this is not enough to get a reasonable deal from UK suppliers. 10,000 metres is the minimum order.

Is there any other farm looking for alkathene piping at a reasonable price and would like to join forces with us.

If so, please contact Toni and Richard Stevens at Port Sussex Farm, telephone no. 32203

NATIONAL BEEF HERD UPDATE

By Robin Thompson

Progress continues with the National Beef Herd with the recent completion of mating and pregnancy testing.

Mating

AI was used again this year with semen from both Angus and Poll Shorthorn breeds. As usual the cows were synchronised and then inseminated according to heat detection. The two ex Keppel bulls were run with the herd for six weeks or two cycles following the AI period.

The cows were mated in two groups with the aim of bringing the calving date forward. The first group of dry cows was mated to commence calving on December 1st whilst the second group of lactating cows will commence calving on December 28th. The aim is to bring calving back to the start of November. A third group of 20 cows was not mated as they were late calvers and low condition at the time of mating. These animals have since gained condition due to preferential feeding.

Table 1 details liveweight and condition score of the cows at mating and pregnancy testing together with the results of pregnancy testing. Unfortunately, only about half the cows became pregnant. Although more of the dry cows became pregnant than those lactating the condition of both groups of cows should not have prevented achieving pregnancy. The results from last year together with these confirm our suspicions that there is a problem here getting cows pregnant so as to calve every year. Although a number of factors may be contributing to this problem hopefully the cause will be isolated in the near future.

Table 1. Cow mating data

Characteristic	Dry cows	Lactating cows
Pregnant to AI (%)	20.6	11.1
Pregnant to bull (%)	39.7	23.6
Overall pregnancy %	60.3	65.3
Live weight at mating (kg)	398	382
Condition Score at mating	3.2	2.9
Live weight at preg. test (kg)	401	348
Condition Score at preg. test	3.2	2.7

Calves

Seventy four calves were born this year. Ten half breed Angus bulls have been ordered so eighteen have been kept and the rest castrated. Bull calves were selected for keeping based on live weight gain. The final ten will be the heaviest at the next spring weighing. These early live weights are largely a reflection of their mothers' milking ability so it is important to assess growth over as long a period as possible.

Table 2 shows the growth data of this year's calves.

Table 2. 1999 born calf growth data

Characteristic	Liveweight (kg)
Average live weight selected bulls	142
Live weight castrated bulls	96
Live weight heifers	111
Over average daily gain 16.3.99-31.5.99 (kg/day)	0.43

For those who remember the animal breeding discussion, selecting the eighteen animals currently gives a selection differential of 46 kg which of course will increase when the best ten are selected.

If the calves were able to keep growing at 0.4 kg/day they would reach the slaughter weight of 240 kg carcase within a year and a half. This should be our ultimate aim but is only achievable through better feeding and management.

Replacement heifers

The herd has 43 replacement yearling heifers. These are currently agisted by Falkland Landholdings at Hope Cottage Rincon. The aim will be to keep these to increase cow numbers, reduce their average age and move the herd towards one with a beef breed conformation.

Winter management

The herd has been partitioned according to condition score and feed requirements. The dry cows are being run as a single herd with the aim for them to maintain or slightly lose condition over winter. The best conditioned lactating group has been combined with the ewe hoggets to be rotated around a couple of camps characterised by the presence of a number of valley greens. These two groups of animals have a high priority for feed as we aim for the cows to at least maintain liveweight and the lambs and calves to increase liveweight. The lower conditioned lactating cows are being preferentially fed so as to ensure no further condition loss and if possible some gain. Some hay reserves are available for emergency feeding. All groups will have access to feed blocks.

Future feeding

The future aim will be to calve in early November and wean the calves onto either autumn saved pasture or forage crop. Such a strategy reduces the feed requirements for cows because they are no longer lactating and gives the calves the best opportunity for growth. This year about 40ha of forage oats and rye will be available for late winter grazing.

WANTED TO BUY *Chain Harrows*

**If you can help, please contact Pat and Dan Whitney
at Mount Kent Farm on telephone No. 31003**

AGRICULTURAL MANAGEMENT COMMITTEE

By Bob Reid

Summary of minutes held at Department of Agriculture on Thursday 27th May 1999.

1). **Matters Arising:**

- a). Slow progress on calcified seaweed/grinding machine. Expected Spring delivery.
- b). Doug Cartridge, Richard Wagner and Colin Horton to visit Bradford wool store.
- c). 5 companies showing interest in building abattoir with tenders closing on 2 July.

2). **Rural Economic Crisis.**

With the further fall in wool prices a revised subsistence scheme had been put in place. Some confusion has occurred as to how it would be applied and further discussions were envisaged as to how best to administer it in the future. A detailed report will be made to farmers during Farmers Week.

3). **Organic Certification of Farms.**

A visit has taken place by an inspector from the Soil Association (UK). A report is still awaited.

4). **Rock Phosphate Purchase.**

A paper from the Department of Agriculture will be submitted to Exco. in the near future.

5). **Agricultural Diversification Workshop.**

This was held on 30 March and a number of issues were explored in relation to the long term future for Agriculture in the Islands. It was agreed that a similar workshop be held during Farmers Week so that ideas, input and consensus on the way forward be sought from the rural community.

6). **National Stud Flock.**

Approximately 50 per cent of farmers have participated in the exercise on sheep genetics held during the recent farm biology seminars. It was agreed by them that a formal proposal on an Islands wide Group Breeding Scheme be discussed at Farmers Week.

7). **Floor Price For Beef.**

FIDC will present a discussion paper during Farmers Week.

8). **Research and Development.**

The Department of Agriculture has prepared the first draft of a strategy paper. Members were in broad agreement with the thrust of the paper and instructed Bob Reid and Hugh Normand to draw up an action plan.

Next meeting held at the Department of Agriculture on 20 July, 1999.

VALUE

It's unwise to pay too much, but it's unwise to pay too little. When you pay too much you lose a little money, this is all.

When you pay too little, you sometimes lose everything, because the thing you bought was incapable of doing the thing you bought it to do.

The common law of business balance prohibits paying a little and getting a lot. It can't be done. If you deal with the lowest bidder, it's well to add something for the risk you run.

And if you do that, you will have enough to pay for something better.

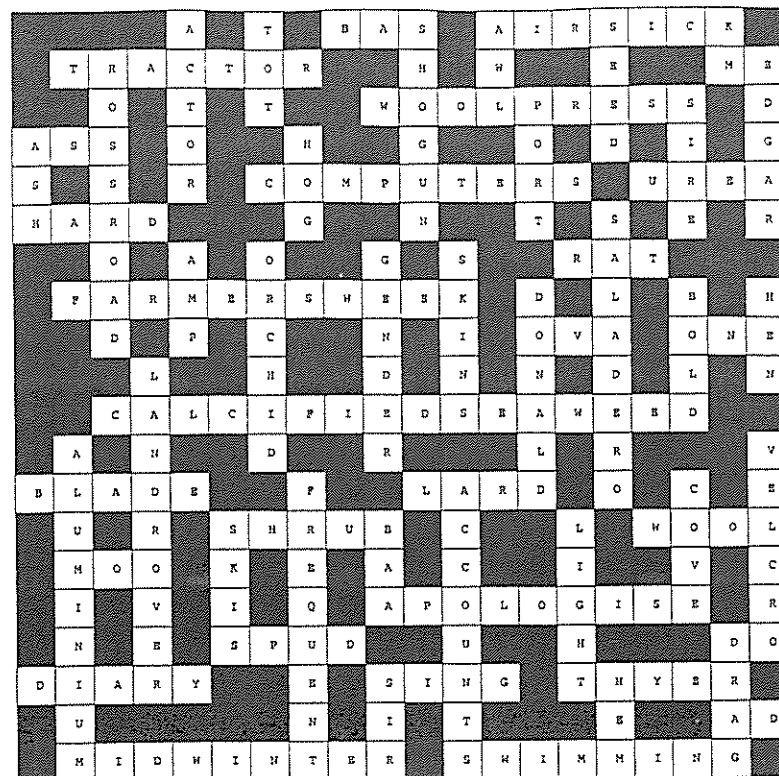
John Ruskin (1819-1900)

ABORTING COWS

by Cameron Bell

The Veterinary Service is interested in investigating cows that abort at any stage of their pregnancy. If this does occur, and you may only know this if they are kept close to your settlement, please attempt to collect the foetus and any associated material if that is possible. This can be stored in a clean plastic bag in a cool location. Please notify the Veterinary Service as soon as possible once you have done this. Even if the cow aborts and you cannot collect any samples, please notify the Veterinary Service. Such samples and information will help us investigate the incidence of cattle disease, particularly diseases which could be limiting cattle reproduction in the Falkland Islands.

ANSWERS
TO
LAST MONTH'S
CROSSWORD



GASTRO-INTESTINAL PARASITES IN THE FALKLANDS

By Derek Clelland

There can be little doubt that intestinal parasites cause damage to farm animals the world over. This damage mainly occurs in young animals that have not acquired an immunity to the infestation. The older an animal is, then the greater the likelihood that it will have come across the infestation before and, like some human diseases, once you have had the disease it is less likely that you will be affected so much with it in the near future.

A lot of research time has been spent trying to rid the animals of these infestations. Most of the research has centred around various chemicals that kill the parasites. These chemicals have worked for a long time but due to over or improper use the parasites have started to become immune to them. This is unlikely to have started here to any great extent due to the fact that animals are dosed less often in the Falklands than in Britain for example. However, if resistance to drenching hasn't started yet it will do in the future. This can lead young sheep to being in a very precarious position when a lot of the nutrition that the sheep is eating will be going straight out the other end of the animal.

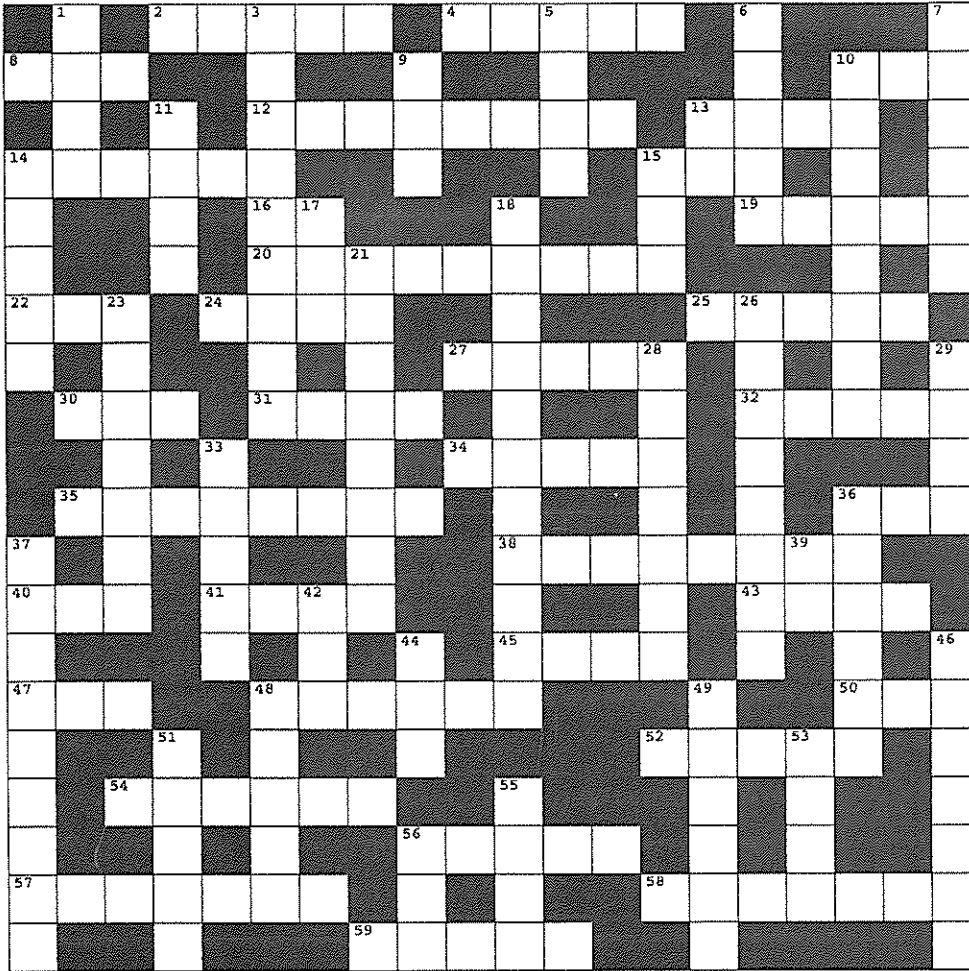
Some work has been done in recent years into looking at the genetic immunity of animals, mainly sheep. This has involved looking at various sheep breeds to determine which breeds are most immune and selectively breeding for this immunity. These procedures have met with some success, however as with any selective breeding program, you may get success in one area but a failure in another. For example immunity to parasites may be bred into the sheep but this may also leave you with a sheep that has a very short, coarse wool. Not a great loss if you are mainly breeding sheep for their meat but if your main income is from the fleece the phrase 'cutting off your nose to spite your face' comes to mind. Therefore it becomes necessary to breed several traits from the sheep at once. This can, as most farmers can guess, be a very long and laborious process and prone to many setbacks.

I am currently involved in a project to determine the immunological status of a group of sheep at Fitzroy farm and once this has been established to try and figure out a way to boost that immunity. This will not be through selective breeding but investigating various ways to boost the immunity of the young sheep at an earlier age than normal. This should lead to the young sheep retaining more of the nutrition from its feed and therefore growing at a faster rate. As previous research has shown, the earlier sheep can achieve a good condition the better it will do in later life. As with all youngsters the better a start in life you give them the better they should turn out.

QUIRKY QUESTION

There are 5 billion people on earth. If you multiply the amount of fingers on everyone's left hand together i.e. $5 \times 5 = 25 \times 5 = 125$ etc. (thumbs count as fingers for this) what result would you get?

Answer on the back page.



ACROSS

- 2. TAILED STAR
- 4. CASTRATED ROOSTER
- 8. INTESTINES
- 10. CHARGE
- 12. 2 MASTED SHIP
- 13. FEMALE HORSE
- 14. AQUATIC MAMMAL
- 15. FEMALE SWAN
- 16. HIGH
- 19. TYPE OF BARN
- 20. GAME BIRD
- 22. OLD DEPARTMENT OF AGRICULTURE
- 24. EVERGREEN TREE
- 25. MONASTIC HOME
- 27. SCRUB CLEAN WITH ABRASIVE CLOTH
- 30. NOCTURNAL MAMMAL
- 31. FLOOR COVERING
- 32. LARIAT ROPE FOR CATCHING STOCK
- 34. MICKY MOUSE'S DOG
- 35. BIRD OF PLOVER FAMILY
- 36. FAST AIRCRAFT
- 38. CAPITAL OF CHILE
- 40. FUEL
- 41. SECURE BOAT
- 43. LEAF GOOD FOR NETTLE STINGS
- 45. CLOSE BY
- 47. CHEST BONE
- 48. CULTIVATED VEGETABLE PLOT
- 50. OIL FROM WOOL
- 52. OPIUM SOURCE
- 54. FRUIT LIKE LEMONS AND LIMES
- 56. TYPE OF MOORLAND
- 57. ONE OF THREE
- 58. TYPE OF VIOLIN PLAYER
- 59. SMALL LOCAL FISH

DOWN

- 1. MASSIVE
- 3. POUCHED MAMMAL
- 5. REMOVE SKIN
- 6. CATTLE MARK WITH HOT IRON
- 7. HORSE SOUNDS
- 9. LEATHERY LEAFED GARDEN SHRUB
- 10. BIRD COVERING
- 11. NOT ODD
- 13. MYSELF
- 14. LAMB CRY
- 15. FILLED PASTRY CRUST
- 17. COOKING POT
- 18. RECEPTION VENUE IN LONDON FOR FALKLAND ISLANDS
- 21. SOUTH GEORGIA VELVET MAKERS
- 23. SOFT HIDE FROM DEER
- 26. SERBIAN CAPITAL
- 28. MALE CHICKEN
- 29. YOUNG MALE HORSE
- 33. POSTAL CHARGE
- 36. RACE HORSE RIDER
- 37. TOTAL SCORE OF HOME AND AWAY
- 39. DEPART
- 42. EGGS
- 44. DEDICATED POEM
- 46. 100 YEARS
- 48. PRICKLY BUSH
- 49. EDWARDS WIFE
- 51. A BIT COLD
- 53. SMALL WATER HOLE
- 55. ICE RAIN
- 56. PORK LEG

Answer to the Quirky Question

The answer would be zero, as sooner or later you would come across someone with no fingers on their left hand and any number multiplied by zero is zero.



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Editor:
Mrs Charlene Rowland

Telephone:
27355

Fax:
27352

e-mail:
doa.fig@horizon.co.fk

**THE AGRICULTURE WORKSHOPS-
A CRITICAL PATHWAY TO THE FUTURE**

&

**SUMMARY OF MINUTES FROM THE AGRICULTURAL
MANAGEMENT COMMITTEE HELD AT THE
DEPARTMENT OF AGRICULTURE ON 20th July 1999**

By Bob Reid

**WEATHER RECORDING SITES IN THE STANLEY AREA
BEFORE THE CONFLICT**

By Jim Elliott

WEATHER AT MPA 1998-99

By Aidan Kerr

MAIN POINT'S MINIATURE HORSES

By Ian and Susie Hansen

THE LIFE OF A VET STUDENT – THE SAGA CONTINUES

By Zoe Luxton

A FEW MORE STATISTICS FOR CONSIDERATION

By Tex Alazia

A GROUP BREEDING SCHEME FOR THE FALKLANDS

By Sean Miller and Doug Cartridge

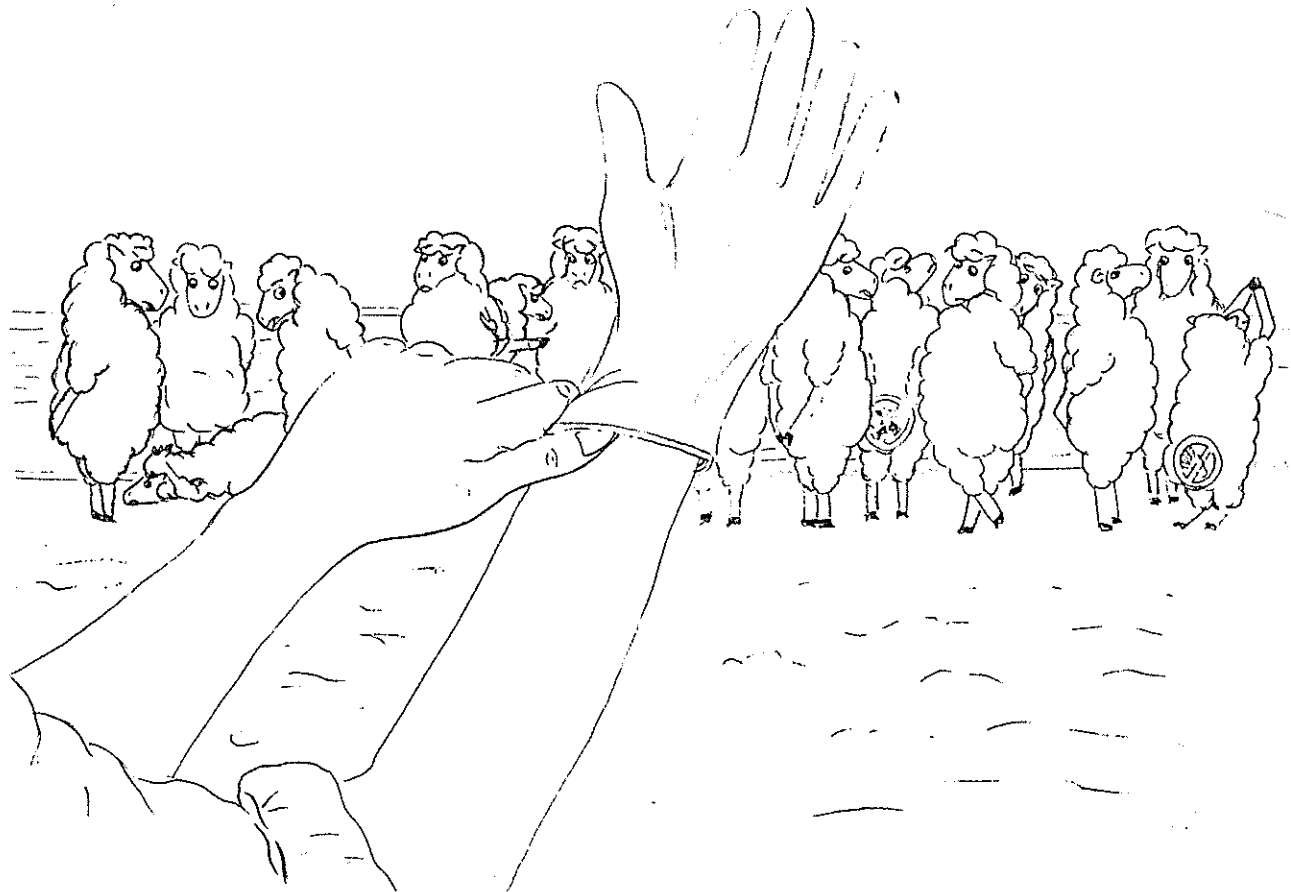
EDITORIAL

By now you should have received your Farm Management Handbook. If you think I should include anything else for the next one or you have any suggestion, please let me know as I find it quite difficult to think what you, the farmer, would like to see in it.

Farming Statistics should be with you around the middle of August, providing I get the last few remaining farms in. I apologise in advance for not getting them to you sooner, as I know some of you are waiting patiently.

As you can see from Zoe's article, she is back for a few months before starting her 4th year in Veterinary School. Zoe and Cameron are holding the fort in the Vets department while Maggie and Steve are in the U.K. Bob is also going for a short holiday of about 4 weeks in August whilst Timmy and Doug have returned after their holidays and Owen should be back home early September.

The Department of Agriculture wish to express their sympathy to the family of Dick McKay. He will be missed by the farming community for his wit, wisdom, experience, and his commitment and contribution to camp life.



“Oh no it's that time of the year for those Alkain samples again” ba ba
by Marie Summers

THIS MONTHS CONTRIBUTORS

Bob Reid	Director of Agriculture	Zoe Luxton	Veterinary Student
Aidan Kerr	Senior Scientist	Tex Alazia	Farmer, Port Edgar Farm
Jim Elliot	Ex Met. Officer	Sean Miller	Sheep Nutritionist
Ian & Susie Hansen	Farmers, Main Point Farm	Doug Cartridge	Wool Advisor

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THE AGRICULTURE WORKSHOPS – A CRITICAL PATHWAY TO THE FUTURE

By Bob Reid

A Personal Introduction – Since taking on the job of Director of Agriculture some two and half years ago I have been both discouraged by the seemingly long term decline in the wool market (and its “knockon” effect to farmers), and excited by the potential for genuine agricultural export diversification. Unfortunately there is a consensus among agricultural economists that there will be no substantial increase in wool prices for the next ten years. So if farms are not to be reliant on continuing subsidies then they will need to find another way of generating income. Thus long term solutions need to be forthcoming and strategies developed to implement them.

At the risk of “sticking my neck out” I must be honest and say that until recently there has been a great deal of complacency and negativity within the agricultural community. Many farmers, quite understandably, are feeling depressed and can see no way ahead especially as they have no control over the sale of their product. Others know that diversification is the solution but don't know what or how to go about it. Some have reached the stage where if the opportunity arose they would leave farming forever.

If the Falkland Island community, and I am not just talking about agriculture, is to have a long term sustainable and prosperous future it must adopt new ideas and technologies. There needs to be an integration of Camp and Stanley through the establishment of value-adding resource and agricultural enterprises, and most importantly, there needs to be a sense of well-being and security, and a firm belief in the promise of the future.

I have lots of suggestions as to how we should progress, but experience has taught me that good ideas alone do not automatically come to fruition. They need to be shared, dissected, criticised and added to. They need to be owned by the people taking them up and not sought or imposed by the ubiquitous “they”. They also need to have a driver to succeed and no single person or organisation has the monopoly, skills or time to take them to fruition.

The first step then, as I saw it, was to convene a workshop that would identify the problems and propose solutions to them. Working on the principle of a “problem shared is a problem solved” and that “two heads are better than one” I hoped that an agreed way forward could be identified.

The following text is a summary of the outcomes of two workshops and is tabled for discussion by the community. I would hope that the reader will take some time to consider the issues raised and be prepared to either comment on them during the next three months at a series of consultative meetings to be held in the Camp, or by contacting a member of the Agricultural Management Committee, or the representatives of the Farmers Association.

I would urge you to read this paper carefully as the road to a secure future for agriculture, quite literally, starts or stops here.

THE WORKSHOPS

Two workshops were held. The first was convened in the Falkland Island Development Corporation (F.I.D.C.) Boardroom in Stanley on Tuesday 30th March 1999. As this was viewed by the organisers, The Department of Agriculture (D.O.A.), as somewhat of a trial run the participants were limited to twenty people and drawn from a wide cross section of the community; Government, Farmers, Commerce and the F.I.D.C. The workshop process was viewed favourably by all who attended not only from the results but also because the

methodology facilitated the identification of the major issues, problems and, in some cases, the solutions. It was agreed therefore that a second workshop be held during the Farmers Week and that all farmers be encouraged to take part. This occurred on Tuesday 6th July 1999 in the Town Hall. Some 65 people took part.

Methodology – The workshops were comprised in two parts. Firstly, the issue as to whether agriculture as an industry in the Islands has any long term sustainable future without the need for continued Government subsidisation was analysed. The second part consisted of posing two further questions on actions that needed to be taken and suggested strategies to carry them out.

The participants were randomly placed in small working groups and given 30 minutes to discuss the answers to three questions (see below). The issues raised were recorded on large sheets of paper and each group reported back to the whole. The issues were then grouped under common themes and each group were asked to develop a strategy to implement that action. At the end of the workshop the whole group then suggested “who” would carry the strategy forward.

Question 1: Do all farmers in the Islands have a long term sustainable future in agriculture without the need for continued Government subsidisation?

As you might expect the outcomes from this debate was a “no, maybe, yes” scenario, with the principal issues being:-

No

- (a) Not all farmers wish to continue on the land.
- (b) The smallest farms, with wool as the only product, are not economic unless steps are taken to make them more productive e.g. pasture improvement.
- (c) When farms were first taken up most new farmers did not envisage any major change from traditional practices – change in itself will encourage some farmers to leave.
- (d) Most farmers have received no formal business training and some will never be good businessmen. It is likely to be this sector who will be unable to take on board new technologies.
- (e) There are few children in the Camp and even less potential young farmers.
- (f) There is a need for seasonal labour, but no money to employ it.
- (g) Some farms have far too high a debt burden, and
- (h) Some farms have little opportunity to diversify owing to their physical nature.

Maybe/Yes

- (a) Larger farms with no or low debt are likely to survive the present crisis.
- (b) Some farms are already diversifying and are likely to be successful.
- (c) Farms with poor lambing should be encouraged to run dry sheep, and those with good lambing to raise and sell lambs.
- (d) Many farms will survive and achieve profitability if alternative agricultural export commodities can be identified and developed.
- (e) There is both the provision of market intelligence and assistance into new product development, and
- (f) The agricultural sector needs to become competitive in the global market place.

In summary there was a recognition from both groups that whilst reliance on wool would continue in the medium term future (10 years) many farms would not be viable without a change in direction and that both Government and the farming community should find ways by which agriculture would once again become profitable.

This outcome then led logically to the asking of two further questions.

Question 2: What actions should be taken to assist those farmers who have no long term sustainable future in agriculture?

- (a) Farms should be examined on an individual basis and those who wish to leave be identified. Where necessary consultation should take place (D.O.A.?) and all other options considered. Caring and dignity were the operative words.
- (b) Where possible market forces should be allowed to prevail.
- (c) F.I.G/F.I.D.C. should be encouraged to develop a farm purchase scheme and the land then leased to neighbours (in whole or in part), or held in abeyance (set-aside) until such times when alternative uses be identified. The Australian/New Zealand models for rural re-adjustment should be looked at for guidance.
- (d) Purchase offers should not be made too attractive and no one should be profiting out of the scheme. Only genuine cases should be considered.
- (e) Alternative opportunities for farmers leaving the land will be required, as well as assistance, in some cases, with training and re-settlement.
- (f) D.O.A. should be allowed to take on a more pro-active and advisory role in the change process. There is clearly a need for co-ordination with the Island plan.
- (g) The Bank attitude to mortgages will need to become more flexible and mindful of community needs.

Question 3: What actions should be taken to assist those farmers for whom a long-term sustainable future in Agriculture is optimistic?

The consensus of opinion from both workshops was that the answer to this question was divided into three categories.

New Industries/diversification

- (a) Urgent investigations and preliminary research and development of:
 - Alternative fibres – mohair, cashmere, guanaco.
 - Alternative meats – reindeer, geese, pet foods.
- (b) Most farms will/should stay with some sheep, but if radical change is to be made, and attainment of World’s best practice achieved, then some support should be forthcoming.
- (c) D.O.A. should be re-structured in such a way that emphasis is placed on “wealth creating” projects and development and extension programmes, rather than pure research and service activities.
- (d) D.O.A. should attempt to undertake at least two pilot schemes for new enterprises each year (in conjunction with the F.I.D.C. and possibly external funding).
- (e) Falkland Landholdings Ltd (F.L.H.) should, in conjunction with the D.O.A., be used as a land resource to develop and extend new farming initiatives.
- (f) Build the abattoir.

Marketing/Investment

- (a) Develop and promote a “Falkland Brand” for a whole range of products. The promotion of our “clean and green” image.
- (b) Value add Falkland Islands wool either in the Falklands or overseas. There was justification in the appointment of a wool market investigator to seek out new markets and alternative wool partners.
- (c) Encourage import substitution, possibly restrict imports through taxation.
- (d) Explore the possibilities of vertical integration. Examine the marketing of Falkland Islands produce in alliance with others.
- (e) Actively encourage inward investment and joint ventures into agri-business enterprises.
- (f) Tax concessions for new enterprises.

WEATHER RECORDING SITES IN THE STANLEY AREA BEFORE THE CONFLICT

By J A Elliott

Infrastructure

- (a) The Incentive Scheme should be re-visited and performance indicators and success parameters should be put in place. Failure should not be rewarded and the scheme should not be viewed as just "another handout".
- (b) There is a requirement for even further integration of the transport system. The ferry across Falkland Sound is a very high priority and this will be emphasised as diversification and supply of livestock to the abattoir increase. This will include consideration of both jetty facilities and livestock holding areas.
- (c) Farmer discussion groups, specific workshops and on-farm training need to be encouraged.
- (d) Farmers Week needs to be less confrontational and more of a learning and information exchange exercise.
- (e) The Grassland Improvement Scheme needs to continue.
- (f) The National Stud Flock needs to be incorporated into a National Group Breeding Scheme so that genetic gains can be quickly made available to all participating farmers.

Comments that were difficult to categorise but nevertheless generated substantial discussion included:

- (a) Farmers are seen by many in the urban community as being spoon fed and more interested in Government support than attempting to solve their own problems. Whilst this perception would be easily dispelled there was little doubt among the majority of farmers that "exceptions" do occur and that the farming community should pull together and speak and, where possible, act in a uniform manner.
- (b) Stanley should have a Stanley Vet. The practice should be charging realistic rates to the urban pet market, which is increasing almost daily. Certainly privatisation should be promoted.
- (c) A few agricultural contractors should/could be assisted to acquire the machinery to carry out the once a year tasks that tie up expensive tractors, seed drills, etc., such contractors should have a strict operational policy which is guided by the D.O.A.
- (d) Consideration needs to be given to the establishment of a Rural Development Agency which incorporated the purely agricultural activities of the D.O.A., F.I.D.C., the Department of Fisheries (in-shore aquaculture) and possibly other F.I.G. instrumentalities. There are models in other countries that are seemingly working well.
- (e) Minimisation of Government bureaucracy was seen as a key factor in "fast tracking" the required actions. Too often middle management has no practical understanding of the problems in which they were expected to participate in solving.

Both Workshops then grappled with the ultimate question, "who progresses the way forward and what urgent issues need attention"? Somewhat suprisingly the answer was the same in both and highlighted the need for a "buy-out" scheme and the establishment of a farm valuation system. There was a real sense of urgency as the current subsistence scheme was already in a phasing down mode.

In the short term the F.I.D.C. and D.O.A. were charged with looking at the change process but in the longer term the "renewed" Agricultural Management Committee should drive the whole operation complete with an overall agricultural policy, a set of goals, strategies and operational activities to achieve those goals, and that in house expertise be co-opted as required.

This paper is thus the second step in the process of re-invigorating Falkland Islands' Agriculture and as stated above your continued input is actively sought.

Introduction

Meteorological data may take many forms. In particular, observations may consist of instrument readings or visual observations, but most often a mixture of the two.

A fundamental requirement for a weather observing/recording site is that it should conform with strict rules concerning the exposure of the site in order that observations are not only truly representative of the surrounding area, but are also comparable with other observations world-wide. Sometimes these conditions are difficult to meet, and a perfect site might not exist. So compromises must be made, but users of data should be aware of any shortcomings.

The 19th century growth of interest in meteorology owed much to expanding global shipping interests, so apart from ships' logbooks, the bulk of records were kept by coastal organisations - Coastguards, lighthouses etc., but there was an additional interest shown by the Victorian gentleman amateur scientist. Until World War 2, Falklands' data fell into all of these categories. However, in recent years the needs of aviation have required meteorological services to be available on airfields.

Cape Pembroke Lighthouse

The first authenticated Falklands' records from a permanent shore station began in 1850 (though the lighthouse did not begin continuous operation until 1854), becoming one of the earliest records in the Southern Hemisphere, though the quality of the data was questioned by the "Scotia" expedition in 1903. They had planned to use Cape Pembroke as comparison data for their Antarctic measurements. Scotia's Meteorologist would have compared the lighthouse instruments against his own, and would have given the lighthouse keepers some training. Thus it is sometimes considered that reliable data did not begin until 1903, then continued with short breaks until 1947, when some agency decided that there was no longer a need for them to continue - though no doubt weather details would have been recorded in the lighthouse logs until closure in 1982.

Stanley Harbour

In 1873, as Stanley grew in size, occasional observations began to be made. The actual site is not known, though it must have been somewhere in the dockyard area. The site had a patchy history until eventually F.E. Cobb, the Falkland Islands Company Colonial Manager, took an interest in 1875 and imposed some degree of quality control over the data. Then in 1922 responsibility was handed over to the care of the Customs Officer (Gilbert House?), and from 1923 weather summaries were published by Falkland Islands Government (FIG) and sent to the United Kingdom Meteorological Officer.

This site was reported to suffer from spray blowing into the raingauge from the harbour.

Agricultural Officer

In 1941 the Royal Naval Met. Branch took up residence in Stanley (HMS Pursuivant, based in Church House) and began to operate as a forecasting unit and a collecting centre for weather reports from a few camp settlements. With Antarctic bases being established in 1944 (Operation Tabarin) the Stanley base managed their meteorological work. The Royal Navy established their observing site in the garden of the Agricultural Office (35 Ross Road West) but the Naval Senior Meteorological Officer was determined to find a better site, but the war was almost over before his suggestion to FIG for a site on Murray heights was finally agreed to.

Murray heights

Having selected a site, permission was given to move the disused army building from near the gun emplacements on Tussac Point (the foundations are still there). The move took place in 1945 and the new office became operationally in September 1945. Comprehensive observations were made on this site until 1982 with only minor alterations when the present Department of Agriculture (DoA) building was completed and occupied by Met Office staff in 1961. However, during a period of serious shortages of trained staff in the mid-1950's, night-time observations had to be temporarily discontinued. In an attempt to avoid gaps in the data record, instrumental data was extracted from pen recorders on the following day; supplemented by 'eye' observations supplied by the Cape Pembroke lighthouse keeper.

Government House

Yet another strange arrangement concerns the Sunshine Recorder, which records the duration of bright sunshine. In 1903 the "Scotia" meteorologist decided against the exposure or operation of the recorder at Cape Pembroke. The then Governor, Sir William Wilson made an offer to install the instrument at Government House where it remained until 1945, when it was removed to the new site on Murray Heights. But even at Government House the horizon was obstructed and it was reported that evening sunshine could not be recorded because of it being in shadow. There are also some breaks in the data when the supply of the special cards ran out.

To complete the record, there was also the Radio-Sonde Station. This was sited close by the junction of Davis Street and what became the Stanley Bypass (the 'office' is now a private house, though the nissen huts survive, but the large balloon shed was demolished by the British Army clearup in the late 1980's). The unit operated continuously between 1947 and 1963. (Radio-Sonde is a system whereby a radio transmitter containing sensors for pressure, temperature and humidity, ascends upwards through the atmosphere, suspended from a large balloon. A modern version of the system has been in operation at Mount Pleasant Airport since 1987. Wind speed and direction at upper levels can also be derived from the movement of the balloon.)

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- With grateful thanks to Jane Cameron, Government Archivist for copies of some correspondence.*

**ANSWERS
TO
LAST MONTH'S
CROSSWORD**

H	C	O	M	E	T	C	A	P	O	N	B	N			
G	U	T	A	B	S	R	P	E	E						
G	E	S	C	H	O	O	N	E	R	H	A	R	E	I	
B	E	A	V	E	R	X	L	P	B	E	N	A	G		
L	E	U	P	L	I	D	U	T	C	H					
B	N	P	A	R	T	R	I	D	G	E	H	S			
A	R	C	P	I	N	E	N	A	B	B	E	E	Y		
T	H	A	I	S	C	O	U	R	E	R	C				
B	A	T	L	I	N	O	O	L	A	S	S	O			
H	S	D	P	L	U	T	O	G	L						
D	O	T	T	E	R	E	L	N	S	R	J	E	T		
A	I	A	E	S	A	N	T	I	A	G	O				
G	A	S	H	O	O	R	I	E	D	O	C	K			
G	P	V	O	N	E	A	R	E	K	C					
R	I	B	G	A	R	D	E	N	S	E	K	E			
B	N	G	E	P	O	P	P	Y	N						
G	C	I	T	R	U	S	H	P	O	T					
A	P	S	H	S	A	T	H	H	N	U					
T	R	I	P	L	E	T	A	I	P	I	D	D	L	E	R
B	Y	S	H	B	L	T	E								

WEATHER AT MPA 1998-99.

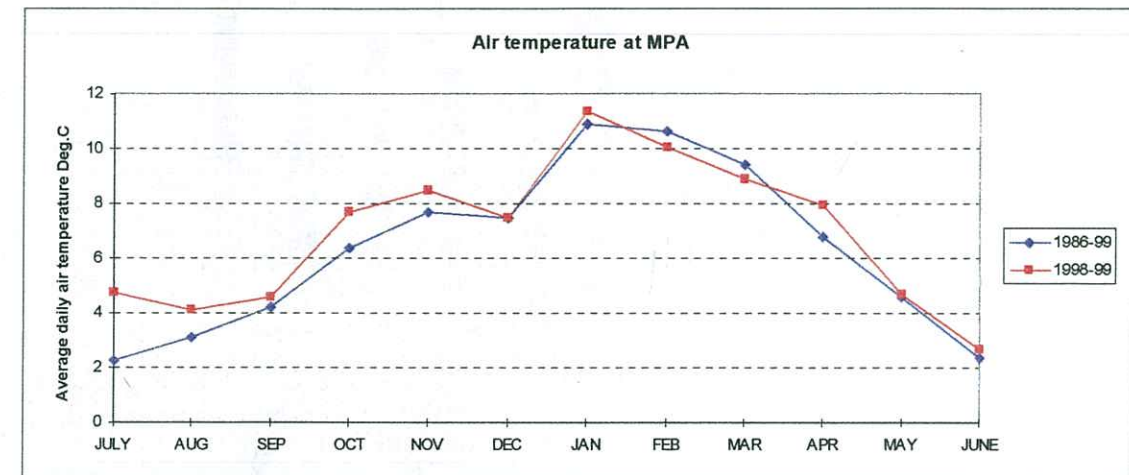
By Aidan Kerr

(data courtesy of the Met. Office, Mt. Pleasant Airport)

How did last season's weather compare with the averages at MPA since 1986? Overall, 1998-99 was 5% warmer, 4% drier, 13% sunnier and 4% windier, but there were differences between the quarters.

July to September.

The weather in late winter was milder than usual. Average daily temperatures were over one degree warmer, particularly during July. Overall, this quarter was 28% wetter than its average, but September was noticeably drier. There was 22% more sunshine. Snow fell and lay less frequently. However the average wind speed was slightly faster and strong gusts and gales were more frequent.

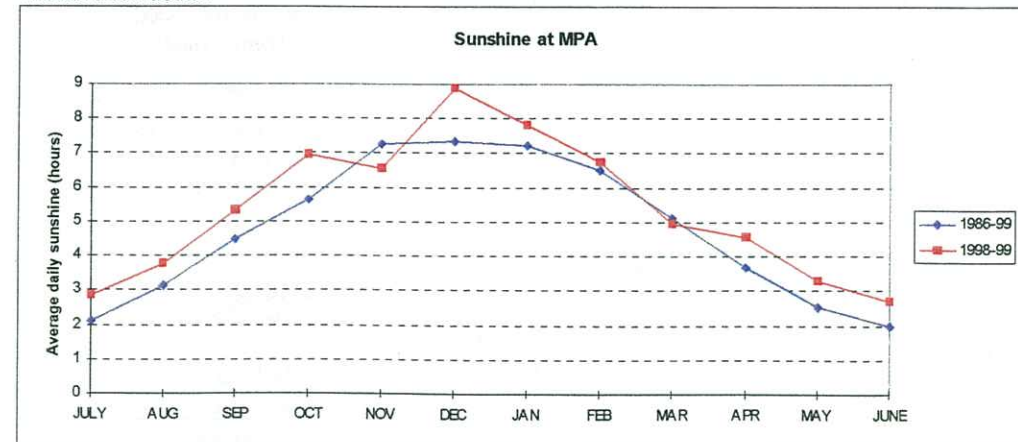


October to December

The warmer temperatures continued until December. Overall this quarter was slightly drier and sunnier than usual, although November was wetter and duller. Snow fell on only seven days compared to the average fourteen days. While October was calmer than the average, some of the highest gusts (70 knots) were recorded in late November and early December.

January to March

This quarter in 1989-99 was much the same as the average. The exceptions being that March was wetter than usual.



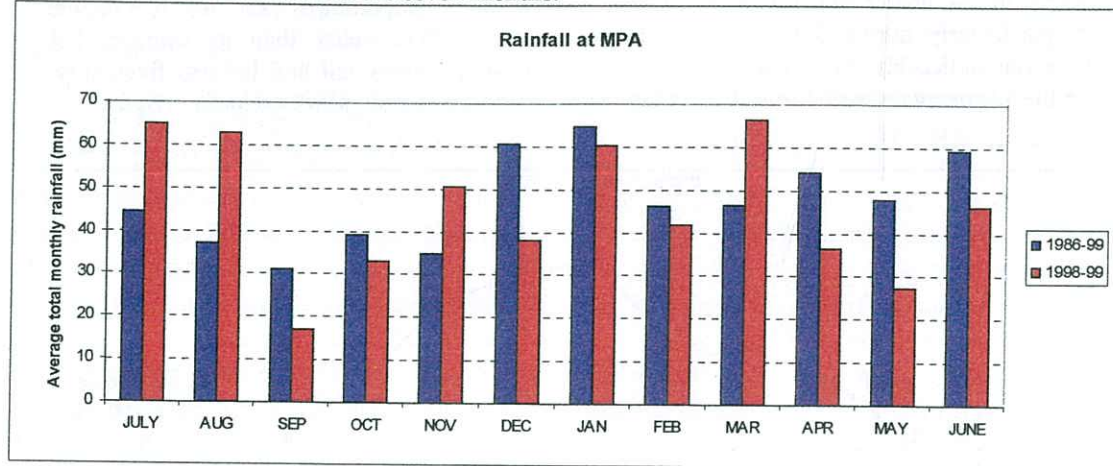
April to June

The 'back end' was generally milder than usual. Air temperature in April was over 1°C warmer and 28% more sunshine was recorded. However rainfall was 32% lower. April and May were windier than usual, and strong gusts and gales occurred more often.

MAIN POINT'S MINIATURE HORSES

By Susie and Ian Hansen

In my experience here rainfall, and in particular soil moisture, is probably the most important factor affecting plant growth. While total rainfall (546 mm) was slightly lower than the average (567 mm) the pattern of rainfall was different. Since 1986, April to June had been the wettest with 29% of total rain falling then. July to September was usually the driest with only 20% received then. In 1998-99 this pattern was almost reversed. April to June was the driest, 20% of the year's rain fell then. While January to March received the greatest proportion (31%), 27% fell from July to September. It is also probably worth noting that during the 1998-99 growing season, (October to April) the monthly rainfall was lower in five out of the seven months.

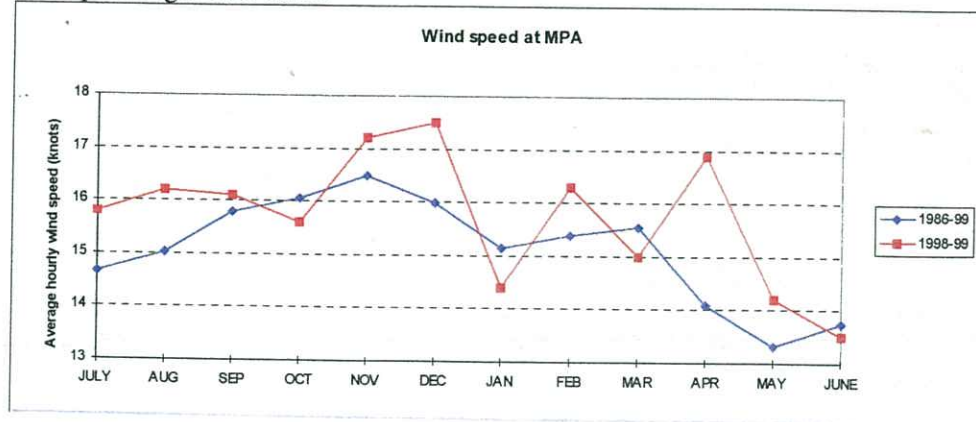


To a large extent the data support what I had observed over the last year. The dry and windy spring, dry soils during most of summer until late March when the heavy rain seemed to bring on a late burst of plant growth. The latter has continued during the recent mild winter temperatures.

The 1998-99 weather seems to fit with studies conducted by Gerry Hoppé and Jim McAdam of the Queen's University Belfast. Their DoA funded project of the Islands' climatic data over the last 120 years concluded that;

- * total rainfall had decreased,
- * rain events were more fragmented with longer dry spells,
- * temperatures were stable and
- * sunshine occurred for longer periods.

However one year's data is insufficient for adequate comparisons to be made and the trends need to be monitored and compared over several years. Nevertheless their conclusions warrant consideration when planning for the future.

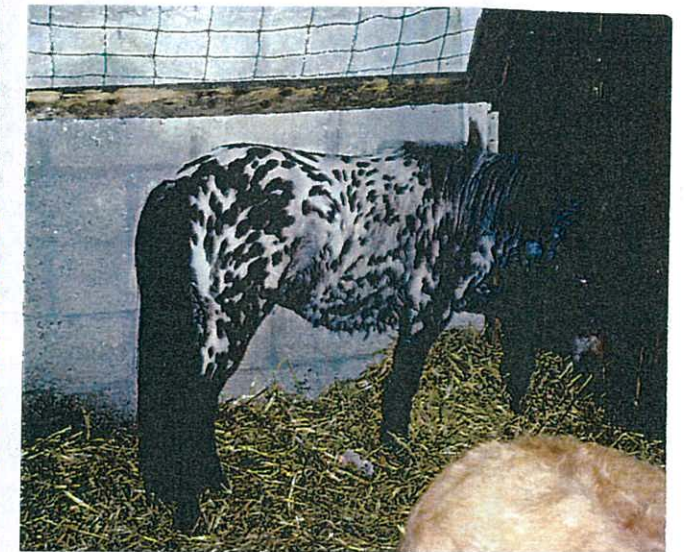


Finally, what was the weather like during 1998-99 on your farm and did it differ much from that at MPA? Please let me know on 27355.

In May we spent some time on Kilcummer Miniature Horse Stud in Cornwall with Janice Deakin. This is where two of our previous miniature horses came from. We went intending to buy 6 or 7 more for breeding purposes. We actually ended up with 9 which will hopefully arrive in the Falklands around 23rd October. The nine consist of 4 breeding mares, plus one has a filly at foot which will be used for breeding when she is older; 2 young colts for breeding and 2 colts that have been sold as pets once they arrive.

Our original two mares foaled successfully this summer, a colt and a filly. The colt has been sold and will be heading to his new home in October. The filly will be kept for breeding.

Initially we had a lot of people placing orders and with just two breeding mares it was going to take a long time to be able to breed enough colts to fill all the orders (it has always been our intention to keep all fillies for breeding). However, with the extra mares this will bring our brood mares up to 6 with 2 fillies that will hopefully be breeding in 2 years time. This should rapidly increase our breeding plans and hopefully fill the orders we have in the next couple of years.



On the right is "Oliver" one of the two colts we are getting sired by Banthos. The little bay next to him is coming down and is sold to Shirley and Donald Betts.

Janice's stallion from Holland "Banthos".

With the new imports we will have a good variety of different stock of various shapes, sizes and colours. Including a spotted mare (Appaloosa) and other mares and stallions that are spot bred. Spotted miniatures are in general taller than ordinary miniatures. A registered spotted miniature must be less than 42 inches high, where as miniature horses registered with the British Miniature Horse Society or American Miniature Horse Association must be under 34 inches high. However, breeders are continuously breeding the spotted miniatures smaller all the time. Janice owns one of the smallest spotted stallions in the world. She imported him from Holland and his stock is in great demand world-wide. He has bred all her best stock, he produces very tiny stock and some amazing colours including the latest breed called "Appianos". An Appiano is a coloured pony (i.e. black and white) which also has spots. Not only is he the perfect breeding stallion he also has great character and is extremely good-natured. We are lucky enough to be getting two of his colts for breeding. One of which is almost identical to Banthos, short and stocky with his shape and markings. The other is finer boned and more Falabella type, his full brother was Supreme Champion a couple of years ago.

The mares we are importing are all bigger than the stallions but still meet the registration requirements, all will have registration papers. This will hopefully reduce the risk of any foaling problems. Now that the trend is to breed miniatures smaller all the time there can be a lot of foaling problems with the really small mares, especially if crossed with stallions of

genetically larger bone. For this reason we have tried to get stallions from the smallest stock possible and average sized mares. Although there can be problems with large foals out of small mares, especially if they are in a breech position the main foaling fatality comes from foals suffocating in the bags. This happens frequently if you are not there to break the bag as they are born, Janice lost three this summer and she has close circuit televisions in all her foaling boxes.

Apart from the odd problems with foaling they are very easy and cost very little to keep. Ours have come through two winters very well; even the foals have not been stabled (although they have stables or shelters to go in when they choose). Although in other parts of the world they are often kept in very small areas they do like their freedom. In particular one of our stallions seems determined to make a point of this. Although they all have plenty of space here and roam for miles, he always seems to think there is something better in another paddock! He has big ideas for a little horse and will do anything to escape with the big horses. His great mates are two entire colts that he likes to get out and play with. It can be quite a sight with him coming up to their knees when they start rearing and playing with each other. Worried that he could easily get hurt, we do everything to discourage these little escapades, but for those who know what it's like to try and keep pet sheep, where they don't want to stay. I would just suggest they borrow Tornado for a week and they will never again complain about a hand reared sheep being hard to keep, where you want it to stay!



"Cheetah" the spotted mare we are getting, she is taller than most of the others but because she is spotted there were a lot of people wanting to buy her. One Irishman was quite indignant when he found Janice has sold her to the Falklands, as he had wanted to buy her!

Having said that, not all miniatures are like that and our others are well behaved, even the other stallion. Janice has about 70 and she only ever has trouble with one trying to get to all her mares when he shouldn't and that just happens to be Tornado's sire!

A lot of people ask what use do miniature horses have? Well obviously ours will be little more than pets and anyone who has ever owned or had anything to do with miniatures will tell you what adorable and entertaining little creatures they are. Almost anyone who has ever owned a miniature will tell you that they are addictive! They have such unique characters and never get fed up with attention from humans.

There is big business in showing them in America and throughout Europe. They are driven with little traps and are amazingly strong for this sort of thing. Although small children can ride some of the bigger and stronger ones it is not recommended that they are ridden. Show ponies sell for thousands of pounds, mares in general are much more expensive than colts but a good stallion can sell for ridiculous prices. Last year a young stallion in America fetched a top price of \$122,000.

AN ABSTRACT FROM A REPORT MADE BY THE DIRECTOR AGRICULTURE IN 1937-46 – Director J.G. Gibbs

When considering this report I should like the reader to recall that in 1940 when I arrived in the Colony there was less than two acres of ploughed land within reasonable distance of Stanley and this was infested with spurrey. Neither my foreman nor any of my labourers, mostly men with camp experience, had even seen a ploughed furrow and there were no horses which were accustomed to arable work available to me. Ploughing was such an innovation that a number of townspeople would stroll out to inspect the first areas that were ploughed and there was a strong belief that cultivated land would disappear as a cloud of dust borne on the wind.

I venture to think that a considerable improvement in the prosperity of the colony is possible if some of the leads which have appeared as a result of this work are followed up and applied. But they represent ideas and practices new to the colony and as such must meet with a deprecatory criticism, especially from an industry notorious for its conservative obstinacy. It is well known that human nature prefers first to throw stones at those who provide advanced ideas even though those same ideas become eventually incorporated in everyday life, and the Department of Agriculture has not escaped such treatment. I would adjure the landowners to consider this and to consider also, how conclusions as are here presented may be applied with profit, for where the will is sufficiently strong the means will be found; or in the words of Mr Churchill, "Do not argue the problem. Get on with the job. The difficulties will argue for themselves".

LETTER

Bob has received a very interesting letter dated 25th June, 1999 from Mr J.H.R. Carver, which he thought would be of interest to farmers in the Falkland Islands.

The text reads as follows:

Dear Mr Reid,

I refer to the article in the Penguin News of June 4th and to what Mr Gainham of FIH said about the possible export of lamb.

In neither did I see the magic word "organic".

Last year at the Royal Show your stand of organic wool provided some comment when it was appreciated that this is the only sourced organic wool in the world.

You can't imagine how crazy everyone here is about food and health scares. There is one every other week. Even this conventional farmer has gone to the expense of being "farm assured" to satisfy the supermarkets. Other hard headed farmers are now going organic - a long and painful process.

Not long ago one of the supermarkets said it was buying a West Indian Island which it was going to make 100% organic for its organic tropical foods.

I am a shareholder in FIH I have visited the Falklands. I am a farmer. It seems to me that you have an astonishing opportunity of being the only worldwide country producing wholly organic food! If so your products, at no extra cost to you other than advertising will sell at 50% - 100% premium. The English supermarkets are currently crying out for organic meat. There is not enough of it - so they sell expensive ostrich and deer meats. Why should you not supply them with organic beef (in time), lamb, shell fish, milk products (?), sea trout and especially wool.

You would have to keep all sprays out for the Falklands forever and a day. The "Soil Association" would need to be consulted and to inspect and certify you. It would be tragic not to seize this opportunity.

Yours
Robert Carver

WANTED TO BUY AND SELL

Wanted: For Donalds Press,
1 set of feet for Micro 2000 Scales.

For Sale: Yamaha 350XT
Good running order £750

Contact: Ian Hansen at Main Point Farm

Telephone: 41008 or fax: 41009

WOOLMARK SIGNS DEAL WITH MANCHESTER UNITED SOCCER CLUB

Source: ABC National Rural News 14/7/99

This Australian article is based on the Power of Marketing Wool and hope you find it of some interest. Perhaps the Falkland Islands could one day play a part in Liverpool football kit and paraphenalia. (Not that I am a Liverpool supporter!)

The Woolmark Company has signed a deal with the most popular soccer team in the world in a bid to tap into its huge fan and merchandising base.

The arrangement between Woolmark and Manchester United will see both players and spectators wearing garments made with Sportwool, a blend specifically designed for active wear.

As the team arrived in Melbourne for the first of two matches, Woolmark Manager of operations, David Connors, dubbed it one of Woolmark's most cost-effective deals.

David Connors: The Manchester United merchandising machine is opening theme stores throughout the world in Asia and in Australasia, were they will sell not only their football kit and football paraphenalia, but also active leisure wear. We'll be working with Manchester United and their partners there to see wool get into a broad range of product that will be branded Manchester United or the Red Devils. There's a fantastic opportunity here that is spearheaded by that big win of getting it on the back of players.

THE QUESTIONNAIRE THAT WAS GIVEN OUT TO FARMERS AT THE DEPARTMENT OF AGRICULTURE IN FARMERS WEEK HAD 5 WINNERS WITH ALL THE ANSWERS CORRECT.

Winners as follows, with each receiving a bag of fertiliser.

Ted Jones of Head of the Bay Farm, Peter Nightingale of West Lagoons, Paul Robertson of Port Stephens, Phillip Miller of Cape Dolphin and Lisa Pole-Evans of Port Howard. (Answers are available at the Department of Agriculture).

THE LIFE OF A VET STUDENT - THE SAGA CONTINUES

By Zoe Luxton

THERE'S LIGHT AT THE END OF THE TUNNEL.....

.....and a couple of months ago it appeared to be on the front of an oncoming train!! Passing third year seemed darn near impossible, my tear ducts were on overtime and I was constantly draughting business plans in my head for various non-vet related career ventures.

Luckily after lots of blood, sweat and a few more tears (and the occasional stiff gin) I staggered from exam hall to results notice board and almost fainted with relief to see a neat row of passes next to my name - naturally my housemate got a couple of merits but she has the ability to study late into the night while I find teddy and deep slumber far more appropriate!!

Anyway, here I am again lurking around the vets section but something feels different this time - I think I might actually know something!!

When I came home after battling through the irrelevance of first and second years, I bimbled around the office nodding in agreement with everything the vets said and then had to hide in the stock cupboard with a book and emerge some time later and confess I hadn't the faintest idea what was going on. Now however I can stride confidently past the stock cupboard into the office, look at the appropriate pages and even understand a few words. The vet asked me a question the other day and I could answer it straight off (and no, it wasn't "what's the time?"), and the biggest milestone? Yesterday I speyed my first cat!! Steve was on hand with various pieces of emergency equipment and Cameron was probably on standby next door with his finger on the 9 button of the phone in case of any scalpel slipping incidents but I am pleased to report that all involved in the operation are still alive and kicking.

This past year has mainly been the "ologies" at college - you name it, if it ends with "ology" chances are I've studied it this year - bacteriology (eg anthrax), virology (foot and mouth), parasitology (damn fleas!) and pathology (load of dead stuff, irrelevant, it's dead, who cares?!).

This coming year holds the delights of the first part of my finals (in fourth year - don't know why?) and then I am on rotations, so basically I will either be working in one of the hospitals at college or following some poor vet around asking umpteen questions.

There is still a long way to go - two years to be exact - but I can finally notice some progress being made - so perhaps there is hope for me yet!!

REPLACEMENT FENCING SCHEME

The 1999 Replacement Fencing materials has arrived. The overland farmers have all been asked to collect their materials between the 4th August and 25th August, 1999. Please make sure you come and see me so as I can organise your collection.

The Farms who's materials will be delivered by the Tamar FI, will be dispatched as soon as possible. Please expect a consignment on your next voyage.

The Replacement Fencing wire, pins, staples and half of the stobs has not arrived (hopefully in September) once this has arrived you will be notified and a collection point organised.

A FEW MORE STATISTICS FOR CONSIDERATION

By Tex Alazia of Port Edgar Farm

In my April "Woolpress" article, I mentioned the cost of interest charged on prepayment of ocean freights. May I point out a few more statistics to be considered by the Wool Adviser and those looking into ways of cutting marketing costs.

If you sell through Falkland Woolgrowers Ltd. you are charged 1.41% interest on prepayment of V.A.T., ocean freights and S.G.S. tests, plus 0.51% on bank turnover, handling and sundry charges, so added to the 2% agents fee we come to 3.92% deductions before we start to pay for any other marketing costs.

Bank turnover charges: This was 0.28% last season (97/98) rising to 0.29% on some invoices, but has nearly doubled to 0.51% on all my invoices for the first half of this season (98/99), about 80 bales. I thought bank interest was dropping!

Interest on prepayment of Ocean freights, V.A.T. & S.G.S. tests: As a saving, could not these payments for each farm's 2nd and 3rd shipments be deducted from the proceeds collected by the agent on the 1st shipments wool unless asked otherwise because of cash flow problems, etc. We have paid our own freight in the past but have then still been charged interest on combined invoices along with all the other farms.

Core-test charges: Again these are a total per invoice then deducted on a clean wool percentage, i.e. wool sold on the invoices, say £100,000 then your proceeds are £10,000 less 10% of the total costs, warehouse fees, 2% agents fee, S.G.S. charges etc. This is totally fair per farm except for core tests because one farm may have been charged by S.G.S. £120 for 30 bales and another £107.00 for 1 bale. For example:-

Voyage No 6, Anne Boye:

PTED (Pt Edgar)	28 bw	S.G.S. charge	£120.50
Another farm (A)	9 bales	" "	£107.00
" " (B)	9 bales	" "	£115.50

Total S.G.S. charges on invoices £1,129.50

Total farms 17

Total bales 187

PTED deductions: 14.26% of £1,129.50 £161.06

Farm (B) " : 5.52% " " £ 62.34

Farm (A) " : 5.22% " " £ 58.95

Surely each farm should be charged for what their own results cost, i.e. in our case £120.50 and not £161.06.

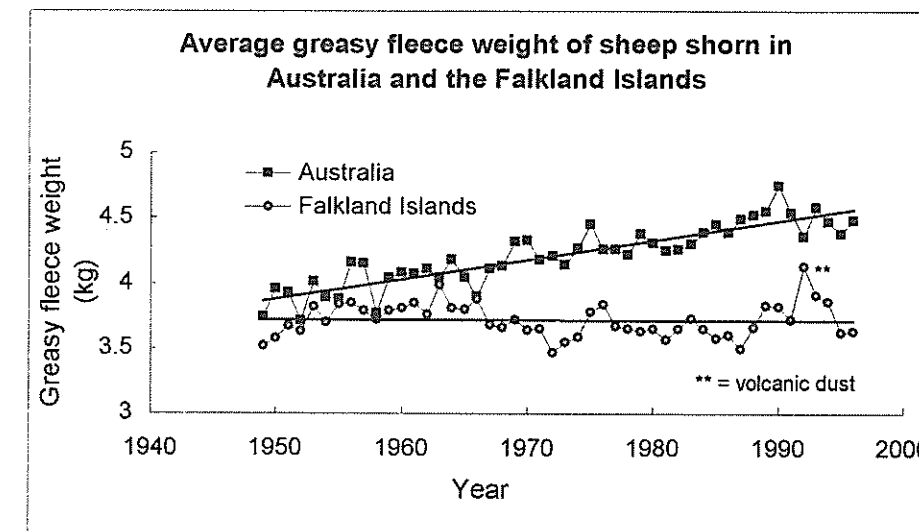
A GROUP BREEDING SCHEME FOR THE FALKLANDS

By Sean Miller and Doug Cartridge

Consultation with farmers during recent agricultural workshops and during Farmers' Week has led to this proposal to improve the rate at which genetic progress is achieved within the Islands' commercial flocks.

Genetic progress is slow at best, with maximum limits around 2% being achievable per breeding cycle. Progress within the National Polwarth Flock (NSF) has been limited due to problems with face cover and the ability of the sheep to survive in this environment. Furthermore, the value of the NSF has been questioned since only 25 or so farms buy the 60 to 70 rams produced each year, and these rams filter slowly through farmers' own small stud flocks. As a consequence, the potential rate of genetic gain is poor on a national basis, at least 5 to 7 years behind the progress of the NSF. Although the Corriedale Stud Flock has been established using the principles of a Group Breeding Scheme (GBS), its own small size, and the correspondingly small size of the NSF, fail to address the fundamental problem of the slow transfer of superior genetics to commercial flocks.

Wool production figures for the Falklands clearly show the poor genetic progress of the Falklands' wool industry, both relatively and absolutely.



A co-operative Group Breeding Scheme provides farms with wider access to animals with superior genetics, and increases the rate of transfer of genetic improvement between the ram breeding flock and the commercial flock.

Considerable investment has already been made in efforts to improve the genetic base of the Falklands' wool industry. Relatively few farms are making effective use of this resource, and others none at all. A GBS offers the opportunity to capitalise on the best animals in the country on an ongoing basis. *This would replace the current National Stud Flock, but would make use of the existing animals as the foundation of the ram breeding nucleus.*

A GBS typically operates by;

- Selecting and breeding from the best young ewes (the ewe nucleus) from participating farms on the basis of objective wool production
- Breeding from ewes for a maximum of 3 years
- Retaining ONLY the best ewe progeny of the nucleus each year and continuing to introduce the best young ewes from participating flocks
- Objectively measuring ram progeny
- Retaining the best 1% to 2% of ram progeny for the nucleus
- Distributing a proportion of the best ram progeny to the participating flocks*
- Participating flocks use rams for just 2 seasons over entire flock

* This number will depend on the size of the ewe flock, the number of farms participating, and the selection differential chosen when agreeing the GBS breeding objective.

Advantages of a GBS

- Faster access to superior genetics
- Reduced generation interval with fast turn-over of rams and ewes
- Making effective use of locally adapted animals
- Uses objective measurement to focus genetic selection
- FASTER GENETIC PROGRESS

Disadvantage of a GBS

- Requires co-operation from many farmers to establish a common breeding objective

A Falklands' GBS

About 220,000 ewes are mated in the Falklands each year. At a ram to ewe ratio of 2.5%, the industry has a requirement for 5,500 rams to serve these ewes. If rams were used for just 2 years under the GBS model, the GBS ewe nucleus would need to produce 2,750 rams each year to fulfil the national ram requirement.

If 75% of farms were committed to a GBS, about 2,000 rams would be required per annum. Depending on the selection differential agreed at the outset of the GBS, this requirement could be met with 10,000 to 15,000 ewes (60% to 40% of rams distributed to farms, i.e. 40% to 60% of rams culled).

In the year of establishment, the GBS would need to identify the top breeding ewes from each participating flock. To acquire a nucleus of 10,000 to 15,000 ewes, this equates to 6 to 7% of each participating farm's best ewes. Thereafter, an annual commitment of the best 6 to 7% of shearling ewes would be required (depending on the turn-over of ewes in the ewe nucleus). All of these animals would be selected using objective measures of wool quality.

Housekeeping issues

A number of fundamental issues would need to be discussed and agreed at the outset of the GBS.

- Do we really need two distinct, breed-separated flocks; does breed really matter?
- Do all of the sheep need to be run together?
- What should be the criteria for selecting superior animals; fleece weight versus fibre diameter, liveweight, staple strength, worm resistance (a weighted index)?
- Do we start with all shearling ewes, or include mixed ages in a 'balanced flock'?
- How many rams are culled before distributing them to the participating farms; do we keep only the best 30%, 40%, 50% etc.?
- Who should run the GBS (DOA, FLH, private farmer etc.), and from where?
- Wool sales from a 10,000+ ewe flock, in theory the best ewes in the Falklands, would generate considerable finances (self-funding?). In addition, the 12,000+ young sheep (hoggies and shearlings) would provide further wool income. This is a potentially profitable wool-producing 'farm' in its own right
- Should rams be distributed to participating farms for free, with the option of selling surplus rams to non-participating farms?
- Costs include those incurred for shipping animals to and from properties isolated from the site of the GBS, establishing the infrastructure to contain the flock, side-sample measurement, ear tags, 'imported genetics' (either semen or rams). Who pays these costs?
- What do you do with the ewe progeny of the ewe nucleus that are not selected to go back into the ewe nucleus?
- Are ewes returned to their home farm after 3 years (or when they are culled)?
- What do you do with the 2,000 to 3,000 3 y.o. wethers (cull rams) produced by the GBS (potentially some of the most productive wethers in the Islands)?

The figures above are based on many assumptions and ultimately depend on the level of participation in such a scheme. In reality, at least half the Islands ewe breeding flock (50% of farmers) would need to be involved if the scheme were to offer real benefits to the industry.

The alternative is the status quo; slow turn-over of rams (and genetics), filtration of rams through small daughter studs, and ultimately slow (or no) genetic gain, which is many years behind the progress made by the parent stud flock.

Where to from here?

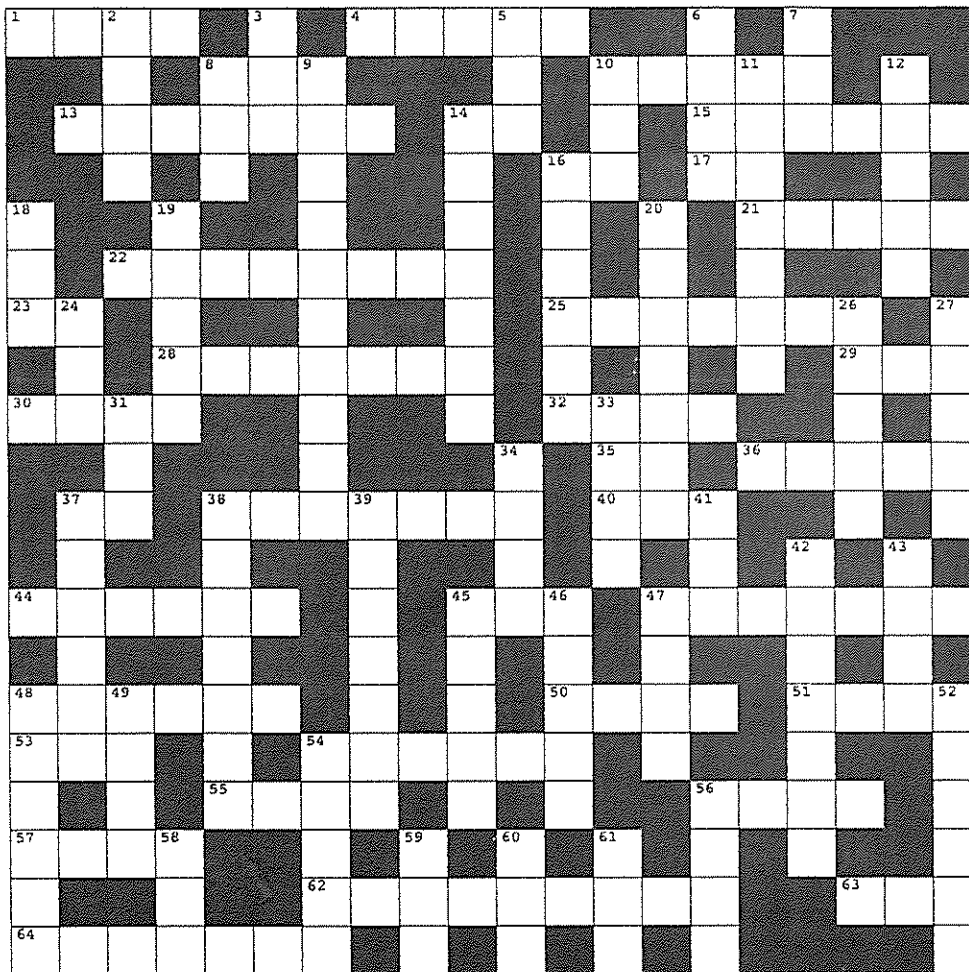
Since this idea is still new to many farmers, we shall conduct a series of workshops around the Islands within the next 6 to 8 weeks to discuss the options, feasibility, willingness, and co-operation required to establish a GBS. In the meantime, if you have any concerns, opinions and ideas on the merits or otherwise of establishing a national GBS, take the opportunity to give Doug or myself a call and we can provide you with any information you may require.

SUMMARY OF MINUTES FROM THE AGRICULTURAL MANAGEMENT COMMITTEE HELD AT THE DEPARTMENT OF AGRICULTURE ON 20TH JULY 1999

1. **Matters Arising**
 - Calcified Seaweed Machine, still delayed.
 - Abattoir, back on track.
 - Rock Phosphate, paper gone to Exco.
 - National Stud Flock, paper presented to farmers at farmers week.
2. **Agricultural Workshops** - Methodology received well at farmers week. Lots of discussion generated. (see paper in this month's Wool Press). Follow up to occur in September/October with visit by Bob Reid and Rodney Lee to consult in the Camp.
3. **Report on Bradford Visit by Doug Cartridge** - Discussions held by Economic Advisor, Wool Advisor and Managing Director of Falkland Landholdings, with marketing organisations/personnel. Each group was asked to prepare as to how they could better market Falklands wool. When proposals are received a full paper will be presented to the September meeting of Agricultural Management Committee. Interest has been expressed in organic wool, cashmere and guanaco fibres.
4. **Guaranteed Floor Price for Beef** - FIDC will put a discussion paper in the next issue of the Wool Press and invites comments.
5. **Representation on Agricultural Management Committee** - It was agreed that stronger representation be forthcoming from the Farmers Association. A paper to be presented at August Exco.
6. **Any Other Business**
 - Abattoir.
 - By-product plant needs further investigation.
 - A working group should be convened to look at markets and products.

Next meeting will be on 21 September at the Department of Agriculture.

CROSSWORD & CLUES



ACROSS

1. COLLECTION OF WOLVES
4. REGAL HEAD WEAR
8. FRONT OF BOAT
10. CUTTING TOOL
13. AREA (OLD SHEPHERDS HOUSE) IN LAFONIA (GOOSE GREEN CAMP)
14. DEFINITELY NOT
15. TUBER VEGETABLE
16. AFTER CHRIST
17. USED TO BE
21. WATER FROM THE EYES
22. INDOOR FOOTWEAR
23. US
25. BARN DANCE
28. ONE WHO CHOOSES BY VOTE
29. LONG HAired OX
30. FUEL FROM THE BOG
32. PLANT GROWN FOR ITS OIL
35. RELATING TO ABBREVIATION
36. NEWBORN GROUP
37. EXIST
38. ARTS LIKE KARATE AND JUDO
40. SEEN AT GALLERIES
44. HOT SALAD VEGETABLE
45. FEMALE SHEEP
47. BALL AND TABLE GAME
48. COURT JOKER
50. FOOD
51. COOK IN OVEN
53. MINERAL SOURCE
54. STANDARD OF RICHNESS
55. BOXING PRACTICE
56. MAKE BEER (OR TEA!)
57. LIGHTWEIGHT AIR-BORNE STRUCTURE
62. NOT DECIDUOUS
63. FOOT DIGIT
64. OF LESS AGE

DOWN

2. MINED FUEL
3. CANINE
5. FAMOUS SCI-FI DOCTOR
6. READY FOR EATING
7. WAGER
8. FLYING MAMMAL
9. BIRD WHO MAKES NEST IN TREE TRUNK
10. YOUNG GOAT
11. TYPE OF DANCE
12. BABY DELIVERY BIRD
14. A PLACE FOR YOUNG PLANTS?
16. ROUND TABLE KING
18. FEMALE PIG
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regular
features
and more!**

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Editor:
Mrs Charlene Rowland

Telephone:
27355

Fax:
27352

e-mail:
doa.fig@horizon.co.fk

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&

WORM WARNING

&

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By Doug Cartridge

HOW TO COAX THE BEST FROM A SHEEP DOG

Source: Farmers Weekly July 16-22 1999

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Adapted by Aidan Kerr

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By Gordon Lennie

ECO LABELLING

By Robin Thompson

LETTER FROM STANLEY DAIRY LTD

From Malcolm Ashworth

EDITORIAL

Bob, Owen, Derek, Maggie and Steve will all be back to work sometime this month. The Department seems very quiet at the moment without them, but no doubt they will be full of holiday stories. Cameron, Mandy and Aidan are also going on holiday/business at the latter end of this month and they all will be back in the Falklands in October. Marie is also going on holiday as well as some farm visits in New Zealand, hopefully she will write a report on her visits when she arrives back home in December.

Spring has sprung again! Whilst out for a Sunday afternoon jolly, lambs were popping up everywhere. Let's hope the weather doesn't turn and cause too many problems for them. I expect everyone is getting into that mood of shearing again. It only seems weeks ago that shearing stopped, perhaps I'm getting old and senile or the months are getting shorter.

The new Beef Specialist has been appointed, his name is Jeremy Challacombe. Jeremy and his wife and child will be arriving early October, 1999. I will get him to do an introduction for the next Wool Press.

Everyone in the Department of Agriculture would like to say congratulations to David and Chelsea Parsons on the birth of their baby daughter Darby Elizabeth. We would also like to extend our congratulations to Julie and Russell Smith (ex Office Manager at the Department) and Fiona and Ron Rozee of Spring Point for the births of their baby girls.



THIS MONTHS CONTRIBUTORS

Cameron Bell	Veterinary Officer	Gordon Lennie	Laboratory Technician
Robin Thompson	Ex. Beef Specialist	Aidan Kerr	Snr. Scientist
Rosemary Wilkinson	Farmer, Dunnose Head Farm	Doug Cartridge	Wool Advisor

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VETERINARY SERVICE UPDATE

By Cameron Bell

Fees

On the 29 July 1999, ExCo approved the increase of veterinary fees by 25% for the current financial year, *with the exception of farm animals (including working dogs and horses) and animals belonging to old age pensioners*. The fee increase would apply to race horses, cats and other non-production animals resident on farms. Even with the fee increase, Falkland Islands Government veterinary fees are extremely reasonable. If a private veterinary service was operating and charging fees equivalent to U.K. or Australia for example, fees could be up to 5 times the current fees! So, the community is very fortunate to have such a service charging the fees we currently charge.

Hours

Clinical work (i.e. sick animals and routine preventative health) comprises only a small proportion of the Veterinary Service's work. Other areas of involvement include: fisheries hygiene inspections, animal welfare investigations, regulation of animal import/export (includes developing import health requirements), public health (including hydatid eradication, inspections, etc.), investigation of production deficits and other research. Consequently, we cannot have consultations throughout the entire day and do routine surgery every day. Hence, we have set consultation hours (see below) and days for routine surgery (Tuesday and Thursday). These have been in operation for several months now, and have been working well. Note that *consultations are by appointment only*. They can be made by telephoning the Veterinary Clinic on 27366.

Veterinary Clinic Consultation Hours:

Monday, Wednesday, Friday

8.30 - 9.30 am

1.00 - 2.00 pm

4.00 - 4.30 pm

Thursday, Friday

1.00 - 2.00 pm

After-hours service

If you have a genuine after-hours veterinary emergency, then the way to contact the on-duty vet is to phone the Veterinary Clinic on 27366 and wait for the answer-phone message. This will advise you of the on-duty vet's telephone number and pager number. If there is no answer at the vet's home, then the pager can be called following the instructions in the front section of the telephone directory. Note that the vet could be out on a fishing vessel or on a farm visit, for example, so please be patient when waiting for the vet to call back. For less urgent after-hours calls, a message can be left on the answer-phone, which is checked at least once a day on weekends or public holidays. With only one vet on-call, we can only do our best.

QUALITY FALKLAND WOOL

By Doug Cartridge

Following the vote of no confidence (Nov. 1998), by Australian Wool Growers, in the Australian Wool Research and Promotion Organisation, a group was appointed to critically look at the Australian Wool Industry from production through to processing and promotion. They came up with an extensive report (Wool Task Force Report) which included 34 recommendations and several hundred pages of supporting information. This report has recently been published on the Internet; address www.wooltaskforce.com.au. I include below a section of this report entitled "Quality Assurance and Contamination". Please read this carefully as it relates directly to the situation in the Falklands. One key recommendation of the report was that farmers must take control of their industry. They must cease blaming someone else for problems with the quality of their wool and must take ownership in the future of the industry. This can only be achieved by ensuring that the product you produce is delivered to the customer in a form which reduces his/her risk of financial loss due to not meeting standards.

It is very easy to sit back and say "There's no point in joining a quality assurance scheme because we won't get paid any more", it's also very easy to say "We aren't making any money because the wool prices are so low" and "it'll come right, something will turn up". Think about these things, can you honestly say to yourself that you have done anything to try to increase the value of your wool, or have you expected Peter Marriott, Robert Hall and David Bell to do it for you?

The Department of Agriculture's (DoA) aim is to ultimately have all Falkland Wool prepared to Quality Falkland Wool (QFW) standards. If you are too proud to use the stencil, or apply for it, then at least follow the guidelines and try collectively to enhance the confidence processors have in Falkland Wool. The biggest misconception that farmers have is that QFW is a guarantee that every small piece of possible contaminating material is removed. This is not totally true, it is a guarantee that the wool has been prepared under the guidelines of the scheme and that everything has been done to reduce the risk of contamination. It is impossible to guarantee contaminant free wool however it is a risk reduction that is for the good of the long term future of wool as a textile fibre.

For those of you wishing to take up the challenge of securing the future of the product you produce and have not yet got a QFW stencil please contact me as soon as possible to arrange an inspection of your shearing facilities. Both Robert Hall and Peter Marriott are thoroughly supportive of the QFW scheme and the DoA's aim of having all Falkland Wool prepared to these standards. What is required is a larger quantity of QFW accredited wool which will then allow cost effective differential marketing.

Quality Assurance and Contamination

source: *Wool Task Force Report*

Quality Assurance (QA) or quality guarantees are a normal part of commercial life in most areas of business. The same is true of the wool processing chain, where claims are made when problems arise.

At the woolgrower level, a QA ethos does not generally exist, but it must develop quickly in the Task Force's judgement, its absence reflects part of the "they" cultural mind-set to which reference has already been made. For a number of years the major woolbrokers have operated QA schemes (Dalcare and Clipcare) but their acceptance has remained low. In fact, the Task Force heard numerous accounts, whether true or not, of woolgrowers threatening to change brokers if they were not accredited - and suggestions that brokers had sometimes responded to such threats.

As one New South Wales (NSW) woolgrower said in this submission to the Task Force "these programs have fallen short of expectations because both woolgrowers and buyers doubt the capacity of the proponents to exercise discipline because of the risk of offending clients".

Some woolgrowers express the view "why should I go to the trouble and expense of being quality accredited when I do not receive a price premium as a result". A contrary view expressed to the Task Force by a topmaker was "why should woolgrowers expect a premium for producing merely what they should produce: a quality, non contaminated product; does McDonalds charge more for a Big Mac if it has a guarantee that it is defect free?"

The Task Force disagrees with both views. First, unless woolgrowers adopt a quality oriented ethos in everything they do, the competitiveness of their fibre will be progressively eroded and process will weaken further - from consumer reaction, fibre choice, decision maker reaction, and so on. Woolgrowers may not detect a specific cause

and effect price change on a particular day but it will be embedded in the overall price structure nevertheless. Similarly, woolgrowers may not immediately benefit financially from QA outlays (just as they do not benefit financially the day they apply fertiliser to pastures), but over time they will unquestionably do so, both directly and indirectly. This has invariably been the experience in non-agricultural businesses, and it is increasingly being demonstrated elsewhere in agriculture as well. For example, Box 18 describes the process of producing grapes suitable for Grange Hermitage wine and, later, Box 24 gives a wool example.

Box 18: "Going Grange"

Historically, Australian grape growers grew grapes and mostly received the same price. Today, there are specific brand growers, for example, growers of Penfolds Grange quality, whose vineyards - or even certain blocks in their vineyard - specified as being suitable for Penfolds Grange. On delivery, eligible grapes are subject to rigorous testing to ensure they match the Penfolds Grange standard. Only if they do are substantial premiums paid.

It is in the interest of the wine companies that more growers achieve the standard as this will result in more product to sell. For this reason, wine companies devote considerable time and effort to ensuring that each grower can meet the standard and achieve viable yields. Needless to say, this is also in the grape owners' interest, so it can be said that there is a strong and mutual interest:

- more grapes, including higher yields, for the brand sales;
- higher grape prices for the grower; and
- higher profitability for both. *Source: Perry Gunner, personal communication.*

Second, while the Task Force understands the topmaker comment quoted above, McDonalds does command a price premium for the superior quality of its product and service, relative to many other hamburger suppliers. More importantly, the comment rings somewhat hollow against the fact that most topmakers do little or nothing to prevent contamination entering the scour, or to identify its cause and provide explicit feedback. Topmakers have bemoaned the fact of contamination for years - and every mill visit by woolgrowers is replete with a display of bale hooks, lunch boxes, jumpers and other nasties retrieved from scouring or combing lines. The Task Force obviously does not condone these quality failures, but where is the evidence of topmakers stating they will only purchase wool from QA clips? And why does wool not enter the scour on a conveyer system where major contaminants can be easily identified before they contaminate a whole mill batch, and the source of contamination pinpointed?

The new Fletcher topmaking plant at Dubbo does this, and while additional labour costs are involved, the principal, Mr Roger Fletcher, told the Task Force that they were easily outweighed by enhanced returns and reduced customer claims later. Many topmakers say that the capital intensity of their business means they cannot afford to check all wool before it enters the scour - but Fibre Direct does not have this problem and claims that it can and does identify any offender who slips through its QA net, enabling appropriate action to be taken.

The off-farm benchmarking analysis reported that:

- the labour costs of removing contaminated fibres at the topmaking stage were 14c/kg clean, with a further 1.5c/kg clean for dealing with client complaints; and an additional 10c/kg clean (or 2.5c/m²) of labour costs were incurred in removing contaminated material at the fabric stage. If these costs were incurred across the entire wool clip (which is probably an exaggeration), they would amount to nearly \$100 million per year, they are equivalent to well over \$5000. These are staggering costs and an unnecessary penalty on wool fibre competitiveness.

The Task Force finds it impossible to conclude that costs of this magnitude are merely absorbed by topmakers or later stage processors. Rather, it is inevitable processors factor a risk allowance - in the form of discounted prices for all wool - into the prices they pay for their greasy wool or yarn. In other words, woolgrowers are already paying for the contamination which occurs and, in particular, "non contaminating" woolgrowers are subsidising their colleagues who are actually the cause of the problem. Woolgrowers should carefully think through this line of logic and what it means.

It should be sufficient incentive for professional woolgrowers to want to join a QA scheme that works, or provide an explicit quality guarantee. The Task Force strongly recommends that they should do so. There are a range of possibilities - the schemes operated by woolbrokers, the Fibre Direct system, various locally developed QA or ISO initiatives, branding by woolgrower marketing groups and so on. All should be allowed to flourish in the market place, so that their commercial worth can be determined. The Task Force is not in favour of a mandatory scheme: a carrot will always work better than a stick. Above all else, a mind-set change is required by woolgrowers, so that they deliver quality performance all the time.

As to the source of contamination, Box 19 summarises recent CSIRO research on the subject. CSIRO has established that up to 75 percent of non-wool contamination comes from fertilizer bags, hay bailing twine and the like, and the remaining 25 percent from HDPE (high density polyethylene) pack material. Thus a major potential problem will still remain after the phasing out of HDPE packs.

Box 19: Contamination in Wool

CSIRO's Division of Textile and Fibre Technology has conducted three detailed surveys to determine the sources of contamination in wool. Two were conducted on Australian carbonised wool over 18 months and showed that about 75 percent of contaminants came from within the pack - mainly polypropylene fertilizer bags, polypropylene hay bailing twine and other assorted artificial fibres. These fibres originated on the farm and entered the wool prior to and during shearing. The remaining 25 percent came from the HDPE pack itself - fibres shed from the pack during side pinning of bales in farm wool presses, core and grab sampling at brokers' stores, and pack damage during dumping of transport.

The third survey was a year long survey of mills at later stages of processing where over 40,000 individual pieces of contamination were identified. Weavers found that one-third of the contaminants came from the pack and two thirds from within pack plastic materials. However, CSIRO noted that sometimes mills blamed artificial fibre contamination when the problem was actually dark coloured vegetable matter, and sometimes blamed woolpack material when the culprit was polypropylene twine.

The problem of contamination from wool pack material will change with the substitution of nylon woolpacks for HDPE packs. While nylon also fibrillates on being cut, it does absorb most dyes similar to wool whereas HDPE fibres do not absorb dyestuffs and are easily visible in dark coloured fabrics. *Source: Gillian Heintze, CSIRO, personal communication.*

In addition, contamination can arise from dark fibres in the wool - either a breeding fault or poor classing or pre-shearing preparation in respect of stained fibres. Both these problems have been known for years and their complete removal should be part of normal professional sheep and wool management.

Leading sheepmeat processor and topmaker Mr Roger Fletcher told the Task Force that meat had a much worse reputation than wool 15 years ago. However, with AUSMEAT, all export meat is now described, checked, every packer has its own brand name, there is an effective trace-back mechanism, and most of the problems have disappeared. There is no reason why wool cannot achieve the same performance. Nevertheless, he is critical of the existing system whereby contamination sources, if found, are drawn to the attention of AWEX, which writes to the relevant woolgrower and wool classer and notifies the broker. Mr Fletcher considers the vigour of the follow-up is inadequate - suggesting, for example, that names of offenders should be published - which is why he is moving to increase reliance on direct purchases from QA wool clips and phase out auction purchases. This issue should be debated more widely.

The Task Force received a submission from a Queensland based firm, Polygon Pty Ltd, which has developed a simple low cost - and seemingly highly effective - scheme for removing many plastic fibres, especially polyethylene, at the topmaking stage. The Task Force met representatives of Polygon and was impressed with what they have achieved.

The concept has been tested by CSIRO and has been found to be virtually 100 percent effective, although further testing is needed to establish whether there are any adverse effects on the subsequent processing performance of the top. This further development should be conducted as a matter of urgency.

Any topmaker seriously concerned about plastic fibre contamination should be very keen to trial the Polygon technology and assess its practical application, even with the phasing out of HDPE wool packs. In addition, Polygon itself might appropriately link with one of the major topmaking machinery manufacturers, such as Schlumberger in France, with whom the Task Force also met.

Another possible solution to the problem of contamination was raised with the Task Force by United Kingdom topmaker, Mr Brian Wittaker, who reported that a researcher at Leeds University had developed a camera method of detecting and removing white polypropylene fibres and dark fibres. Mr Wittaker has offered to trial the system at the end of the carding process. In addition, CSIRO has developed the LopTex sorter, a unit for detecting and rejecting contaminated fibres in the spinning mill, and a Dark Fibre Detector/Classifier. Both were recently demonstrated at the International Textile Machinery Association exhibition in Paris.

THE WOOL BUYER - FOR DAD!

This delightful little poem was sourced by Rosemary Wilkinson of Dunnose Head Farm who found it in the July Australian Corriedale.

His head's full of yields and limits and types,
Of combing and clothing and skirtings and slipes,
Of sixty-four/seventies, shafty and free,
Or bright stylish comebacks like type thirty-three,
The breeder's division is fine - medium- strong,
It's one or the other, you can't go far wrong,
But the Commonwealth clip to the valuer - cripes!
He divides it up into eight hundred types!

He can tell you the value in bales and bags,
Of fleeces and pieces and bellies and dags,
And they who argue are very soon lost,
In discursive discussions of "yields" and "clean cost",
He values the dead-wool, it seems, by the smell,
And knows the last farthing the buyer will yell,
And after the auction he seeks to make peace,
Explaining why "Broken" made more than the fleece,

He values a handful of wool in the store,
The owner, convinced that it ought to make more,
Sticks on a reserve that would make a man grieve,
If he hadn't kept fourpence or so up his sleeve!
When wool is "on show" and the owner demurs,
The valuer points out the "dogshair" and burrs,
And says that the classing and get-up are bad,
But he'll get him the very best price to be had,

If it makes a bit more than the figure he meant,
He says that the market is up 10 per cent,
If it makes a bit less he remarks with a frown -
"I'm sorry, old man, but the market is down!"
If the wool is passed in and the owner relents,
And to let his stuff go at the bidding consents,
It's a hundred to one he's been told if he did -
"I'm sorry! The buyer won't stick to his bid!"

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together with all the necessary fittings

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Telephone: 42307 or Fax: 42304

HOW TO COAX THE BEST FROM A SHEEP DOG

Source: *Farmers Weekly* July 16-22 1999

A dog's eye view and understanding what makes sheep tick can play a vital role in getting the most from young sheepdogs. "Sheepdogs already know instinctively how to work sheep. It's just a matter of teasing out the ability and giving names to what they are doing," explains specialist dog trainer Richard Brown.

Real work starts when the dog adopts a sheepdog pose with its head down and tail between its legs. "Every dog is different but generally they must be physically mature, able to run and past the playful stage. This can be from 10 months old."

But owners with late developers shouldn't despair. "Some dogs can take two years before they are ready for training with sheep," he says.

Ideally training should begin in a small, flat field - so the dog can't disappear - with 12 healthy sheep.

Mr Brown recommends lying down and resting on your elbows to appreciate what the dog sees. "Dogs are a lot shorter than humans and don't have the same range of vision," he explains.

"When training starts the dog will react to sheep in one of three ways. It will either ignore sheep, meaning it is not ready for work, or will bring sheep straight away. But the most common kind of behaviour is for the dog to race around the field with its ears turned off!

"In the last case, take your time and ask the dog to lie down. As the dog is following its hunting instinct by bringing the quarry - sheep - towards you, it is easiest to stop it when it is opposite. It will tire after an hour or so and be easier to control."

Although excited, ebullient dogs are easier to train than timid dogs, shyness can be overcome with patience. "Some dogs need you to walk them towards sheep and may take weeks of encouragement."

Understanding sheep also helps give confidence to young dogs. "Bringing sheep towards a trod - a sheep path - favoured grazing area or water trough is always easier than trying to take them in the opposite direction. This gives the dog confidence because the task is less difficult."

Common problems including cutting through the flock or not gathering every sheep can also be corrected with time and patience. "You need to insist the dog brings all the sheep even if it means walking with it."

ATV use can lead to additional problems. "It's not fair on a dog to train it by taking it right up to sheep on the ATV in the beginning and then expecting it to gather sheep later on. Gathering should always be taught first."

Finally Mr Brown believes it is important to maintain a positive attitude yourself. "Visualise your dog doing the task, don't think that they won't do it or they won't."

Friendliness is the best policy

Raised voices, hitting and a negative attitude does not get the best work out of most people and the same goes for dogs, says freelance shepherd and specialist dog trainer, Richard Brown.

Mr Brown has been training sheepdogs for over 20 years and helping others get the most out of theirs for more than 10 years.

Observing dogs at work has taught Mr Brown a great deal. "Every dog is different but you have to like each other and be friends to get the best from each side."

But there are no short cuts to getting the most out of dogs. Training takes many weeks and a large amount of patience. Successfully choosing a pup is also crucial, he believes.

"Go with an open mind and see the parents working if possible. Note their attitude and confidence as they work. Also check whether they are registered with the International Sheep Dog Society".

"Bear in mind the type of work required from the dog. You do not need a Rolls Royce dog for 100 ewes. Spend time choosing the pup. It need not necessarily be the boldest; often one pup will choose you and this is the pup to go for," says Mr Brown.

"Training should start within a day or two of getting the pup. It needs a refuge - kennel or shed - where it is fed and feels safe. But pups do not learn anything by staying in the kennel."

Obedience training forms the basis for later work with sheep. "Early lessons include lie down/stop, stay and come. Voice commands should be the same as those the dog will hear all its working life and are more expressive than a whistle," he advises.

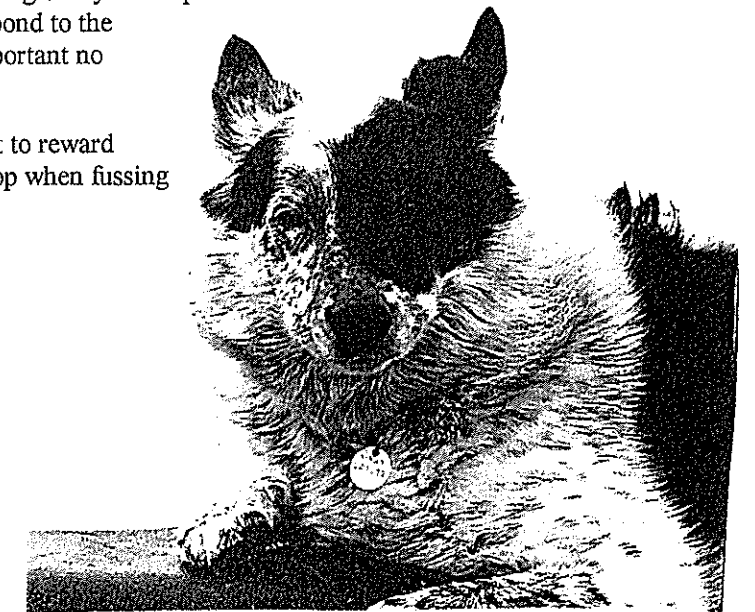
Asking rather than shouting is important, but body position can also have an effect. "When a bitch has had enough of pups misbehaving, she leans over them. mimicking her body posture is an effective way of bring pups to order."

Confusion can arise when pups are bombarded with instructions. "Commands should be short and distinct. Ask three times and tell once, but register your displeasure with a cross voice rather than your hand. Dogs are very intelligent and respond to the tone of voice. Keeping calm is extremely important no matter how cross you feel inside," he adds.

When the pup is behaving well it is important to reward it with lavish praise. "Going a bit over the top when fussing the dog instils confidence," he says.

10 Sheepdog tips

- make friends
- start training early
- ask, don't shout
- obedience train
- short commands
- 20 minute sessions
- lavish praise
- keep cool
- distinguish work and play
- think positively



PLANT IMPORTS

By Aidan Kerr

The Department of Agriculture would like to remind all persons intending to import plant materials (e.g. vegetables, fruits, planting stock or barked wood) to the islands, that they must apply to the Department for a Plant Import Permit. This should be done **before** the plant consignment leaves the country of export e.g. U.K/ Chile. A Permit is not required for an import of seed.

The issue of a permit is conditional upon;

- the production of a Phytosanitary Certificate for the consignment, issued by or on behalf of the Government of the country of origin (e.g. MAFF in UK, S.A.G in Chile),
- the produce being free from soil,
- the produce passing inspection on entry by Department of Agriculture plant inspectors.

For further details and applications please contact the Department of Agriculture on 27355.

NOVEL USES FOR NATIVE PLANTS

adapted by Aidan Kerr, from a DoA funded study by David Broughton and Jim McAdam of Queen's University, Belfast.

With the current thrust to diversify the rural economy of islands, one potential native resource that has not been fully explored are the local plants. Many of the 169 natives are unique to this part of the world and as such any products from them could be novel attractions to tourists and industries. Here are some possibilities for making better use of our plant resources.

Horticulture is a multi-billion pound industry world-wide, which is constantly looking for novel plants both for direct exploitation and for breeding purposes. We have at least over thirty plant species of potential interest to the horticulture industry. Many of these species are already in cultivation, but there may still be interest in improving their cultivated stocks e.g. for novel flower colours or growth characteristics. Some of these are Yellow Violet, Maidenhair-fern, Almond Flower, Vanilla Daisy, Sundew, & Felton's Flower. Tall Fern, Scurvy grass and Leathery-Shield Fern were awarded 'garden merit' by the Royal Horticultural Society. The native Snake Plant is found nowhere else but has been cultivated overseas. However it is unlikely that the Falklands has benefited from this exploitation. There is also potential to increase the local market for growing native plants. This would also help raise local awareness of the native flora. Tussac grass, once regarded as our 'gold and glory', is probably the largest grass in the temperate world and is unique to this region. Perhaps with some development it could be rival Pampas grass as a popular ornamental!

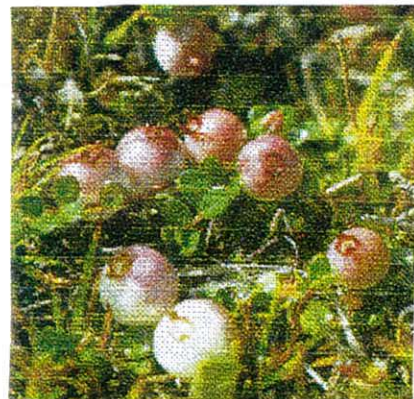


*Native Strawberry –
A novel crop*

Crop improvement. Plants such as Wild Celery, Diddle Dee, Native Strawberry, and the native grasses may all have useful genetic traits which could be incorporated into breeding programs to improve related crops from the northern hemisphere and South America e.g. Blackberry, Raspberry, & Loganberry. To some breeders Falkland plants grow in a relatively drier climate thus their genes have special value. Even the 120 or so introduced grasses may have adapted genetically since introduction to the relatively harsher conditions here. Traits developed to cope with semi-arid temperate climate, high light intensity, high UV-B levels and poorer soils may be useful elsewhere. Where conventional breeding programmes have failed, advancing biotechnology could be used to transfer useful genetic material from our grasses to most of the main forage grasses and the cereals Wheat, Oats and Barley - to which they are closely related.

The US Department of Agriculture has funded a grass collecting trip here in 1998. Tussac grass, Spikey grass and Mountain Bluegrass were among 13 species of grasses and rushes collected by Stoney Wright for further development by him in Alaska. He has had good success in growing Tussac from seed and through a Queen's University studentship he hopes to develop better techniques for Tussac re-establishment here.

Berry Crops. Three shrub species Diddle Dee, Tea Berry and Calafate produce edible berries, as does the Wild Strawberry. Diddle-dee jam-making is traditional. Recently it has sold well locally and one Stanley retailer believes its demand from tourists is increasing. After all it is one of the few wholly locally made 'souvenirs' which is also very portable and unique. However the berry collection, jam-making and processing are very labour intensive and seasonal. Improved mechanisation, presentation, storage and product sanitation standards would probably be needed before the market could be expanded to cope with the 30,000 tourists expected annually.



Tea berries have a unique taste which could have market potential. Many people collect them from late summer onwards for their own consumption. First enquiries suggest that the uniformity in quality and storage features would need to be improved before the berries could be marketed properly. Many use the berries for baking buns and cakes and perhaps, this may be the best product area to develop initially.

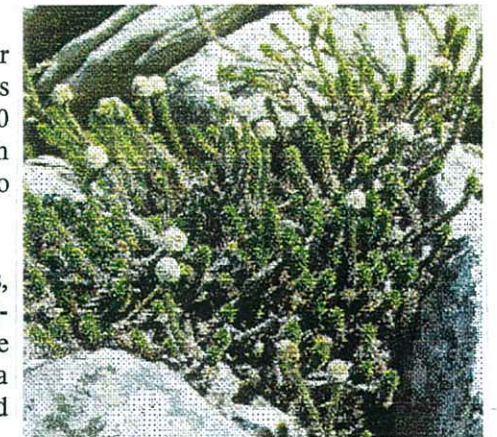
*Tea Berries – a unique
Plant with unique
Potential?*

As a preliminary exercise, David and Doug have recently planted some Tea Berry and Wild Strawberry plants in pots under a range of growing conditions. If their growth is promising we may expand the treatments and scale of the trials.

One man's weed is another man's feed!! To some the spread of the thorny Calafate bush in the Port Sussex area is cause for concern. However, the owners of Port Sussex Farm have made a very palatable red wine from the berries of this 'weed'. Likewise, one early French explorer to southern Patagonia, from where the introduced bushes were probably sourced, made 'un champagne à la calafate'. The native people there extracted a yellow dye from Calafate's roots which they used to colour their blankets while the first settlers used its edible berries to make pies and jams while occasionally, and perhaps in desperation, they mixed shavings from its branches to prolong the supply of tobacco! It is a form of Barberry, a plant which has been cultivated commercially for its berries in the USA. Needless to say, like the other potential berry crops a more efficient method of berry collection would be need to be developed.

Other products that could be developed using the berries might include jellies, ice-cream, yoghurt & fruit cheeses. Tea Berry could be used to flavour a special Gin. The Russians have even investigated the possibility of harvesting such fruit as a source of dyes for use in the food industry. Such produce might even be able to be sold abroad (using the much talked about but as yet under exploited 'clean, green image') as 'luxury', 'eco-friendly' or 'organic' products.

The Scandinavian and Baltic nations place a high value on their native fruit-bearing, dwarf shrubs. Latvia for example, has established 62 Cranberry reserves, covering a total area of 38,800 ha. In South America, berries are now seen as a potential high value crop in the area around Punta Arenas, as they appear to grow slower but with a better flavour than further north.



*Snake Plant –
Horticultural potential*

Given the long-lived, clonal, behaviour of the native shrubs, controlled collection from the wild would be an acceptable short-term option while potential markets for native produce were investigated and tested. However, if a viable market were found a shift to fruit cultivation would be more desirable. This would allow greater control over fruiting, and easier harvesting.

Novel chemical properties.

Potentially any Falkland Islands plant species could have novel medicinal or agro-chemical properties, and the only way to facilitate their discovery is to put plant material into circulation. Here are some examples;

The aerial parts of Balsam Bog can be used to treat external wounds with its anti-microbial and anti-inflammatory properties. A relative of Christmas Bush, has analgesic properties and can also be used to treat worms. It is one of a group of plants whose chemistry is quite complex and merits further investigation. Crowberry, a common heath plant elsewhere and which is similar to Diddle-dee, has been found to contain compounds that inhibit the growth of bacteria responsible for tuberculosis. A few years ago a French pharmaceutical company enquired about our Sundew plants but didn't have the species they were looking for. A quick search of the Internet revealed some medicinal properties for Calafate's relatives, the Barberry. Dried roots were selling at almost £19/kg! Finally, the flowers of Fachine have been used by the native people of Tierra del Fuego to improve their vision. Fachine's properties are under investigation at the University of Ulster.

Similarly, some plants may contain compounds which be useful to an agrochemical industry. For example, two potent naturally occurring insecticides were isolated from an Andean relative of our Lady Slipper. The naphthoquinones which control whiteflies, aphids and mites, were easy to extract and were used to develop more effective compounds. The five year collaborative project was funded and co-ordinated by a British biotechnology company and involved, a botanic gardens, government researchers and universities in Britain and Chile. The multi-disciplinary approach was a key factor in the project's success and all participants will benefit from the proceeds.

What is the best way forward?

There are 4 main areas needing further work;

1. **Production** - DoA should be able to research/advise plant owners on ways to improve production and collection of the plant products.

2. **Legislation** - some may be needed to ensure that a significant proportion of the benefits which may accrue return here and that some are reinvested to conserve the plant resource. This is in line with the Convention on Biodiversity which the F.I.G. should ratify via the UK Government. Complimentary local legislation may be needed to protect the sovereign rights to our biodiversity and its derived products and to allow research and the development of sustainable uses for native plants. Through careful agreement the technical management of access to plant material could be delegated to a reputable seed bank. They should have the necessary legislative framework in place to ensure any profit to be made from the plants is shared with the Islands. This should reduce bureaucracy and the cost of controlling access to biological resources,
3. **Plant analysis** - relationships with Seed Banks or Universities which have specialist analytical expertise and facilities would be need to be developed so that the properties of the plants can be investigated properly. At an early stage patents on the ideas would need to be formulated and protected.
4. **Marketing** - All the products require proper marketing both locally or for overseas markets. Perhaps FIDC and or some marketing specialists could help with this aspect.

Whatever the method it is very important that any exploitation is conducted in a sustainable and environmentally- friendly manner, so that the resource remains renewable. Different plant products may require different work priorities. Some may require less work than others before benefits are achieved but if we don't try soon somebody else is probably going to get there first.

If you need more information or have any similar ideas or require a copy of David Broughton's report please contact Aidan. Acknowledgement of photographs : T.H. Davies & M. Morrison Source: Wild Flowers of the Falkland Islands

WORM WARNING

By Cameron Bell

Recent monitoring of hogget worm egg counts (*faecal egg counts* or *FEC*) has revealed relatively high worm burdens for this time of the year. Mild weather may have contributed to this, but grazing management and stocking density probably also have a lot to do with it. FECs are expected to increase from now on.....other worm 'time bombs' could be out there ticking away.

A dirty backside doesn't always mean worm problems. So don't reach for the drench gun immediately: you could be wasting time, effort and money. The only way to reliably determine if sheep have a worm problem and require drenching is by getting a FEC done (remember the 'worms' you see in sheep dung are harmless tapeworms). The Department of Agriculture's Laboratory can perform FECs and have a fast turn-around. A FEC involves examining dung microscopically and counting the parasite eggs.

How do I undertake FEC monitoring ?

- Remember that young sheep (less than 2 years) are most at risk to worms. Regular sampling (every 6 weeks) of hoggets is the best starting point, particularly if they are grazed in the same camp every year.
- For each mob of sheep, collect 10 to 15 fresh (i.e. warm) samples and place each sample in an individual bag. Sheep tag numbers aren't required. Collection of dung is by either:
 - (i) inserting a gloved finger into the rectum of **randomly** selected sheep; or
 - (ii) holding the mob in a clean corner of the paddock or yards. Allow the animals to settle for 10 minutes, then allow them to move off slowly and collect **fresh warm individual samples** from the ground.
- Samples which are dry or cold are not suitable.
- A minimum of 8 pellets of dung are required per animal.
- Store in a cool place (e.g. fridge or cool-room) and deliver to the DoA Laboratory ASAP (within 48-72 hours). For samples being sent via FIGAS, place all the samples in a large bag before packaging for transportation in the event of damage to package.
- Provide the following details: your name, date of collection, mob/camp name and age or class of animals.
- Gloves and collection kits are available from the DoA Veterinary Service or Laboratory.

Remember that drenching alone will not control worm problems and can lead to more problems such as drench resistant worms. Correct drenching practices must be combined with proper grazing management and a knowledge of worm biology. Further advice can be obtained from the Veterinary Service, Doug Cartridge or Sean Miller. See also previous issues of Wool Press, in particular Sean's 7 Golden Rules of Drenching (Sept 1998).

Don't let it get out of control or else the time bomb will explode!

FALKLAND ISLANDS CATTLE REPRODUCTION SURVEY

By Cameron Bell

Recent investigations into cattle infertility problems in the Falkland Islands highlighted the fact that no base-line data exists for basic cattle reproduction parameters. Such information allows current cattle production to be assessed, with regards to reproductive efficiency, and the deficits that need to be addressed.

A survey during the 1999 Department of Agriculture's Farmers Week display was undertaken. Eighteen farmers completed the survey, split evenly between East and West Falklands. The following table summarises the results.

Parameter	East Falklands	West Falklands	All farms surveyed	All farms range (min - max)	Goal
Number of farms surveyed	9	9	18	18	
Mean number of cattle on farm	80	84	82	9 - 389	
Mean number of breeding cows on farm	43	30	36	3 - 187	
Average age at first calving (years)	3	3	3	2 - 4	2
Average calving interval (years) ¹	2	2	2	1 - 2	1
Number of farms using a defined mating period ²	5	6	11		
Mating period	Dec - March	Dec - March	Dec - March	Dec - May	9 weeks
Average calving percentage ³ 1998	72	80	76	33 - 100	95
Average bull : cows used for mating	1:16 (6%)	1:19 (5%)	1:18 (6%)	1:30 - 1:2 (3-50%)	1:33 (3%) ⁴
Age bulls first used (years)	3	3	3	1 - 7	
Age bulls last used (years)	7	6	6	4 - 10	

¹ Interval between two successive calvings

² Bull is put with cows to be mated and then removed after a set period of time

³ Percentage of cows mated that give birth to a calf

⁴ Depends on type of land being grazed

Significant findings:

1. Age at first calving.

Commercial beef and dairy heifers elsewhere in the world tend to be mated at 15 months of age to produce their first calf at 2 years of age. On average, cows in the Falkland Islands are a year behind when it comes

to this, although two farms on the East and three on the West had 2 year olds calving last year. Obviously this is not an unrealistic goal, but good management and nutrition are required to achieve this. *The onset of breeding is related more to body weight than age however.* For example, the minimum body weight for joining (i.e. target joining weight) for heifers in south-eastern Australia is 290 kg for Herefords and 270 kg for Angus. Similar to many other production problems in the Falkland Islands, nutrition (limiting growth rate) is probably where the problem lies.

2. Calving interval.

For optimum production, cows should produce a calf every year. Obviously, most Falkland cattle are only calving every second year. Hence, there is potential to double the calf production of Falkland Island farms. The calving interval is influenced by joining/calving period (see below). Nine farmers of the 18 surveyed thought their cows could calve every year but stated that the cows would be in poor condition if they did so. Another 3 farmers said they just couldn't get their cows in calf every year. Either way, this is suggestive of a general nutritional problem (probably lack of energy \pm protein) as a year's 'rest' before the next pregnancy is required, presumably because it takes this long to regain adequate body condition.

Calving intervals greater than one year mean money lost and less calves produced:

Example 1:

If herd A has an average calving interval of 365 days and herd B an interval of 400 days, then each year herd A will have calves on the ground for 35 days longer. If lifetime daily weight gains average 0.8 kg/day and beef is worth £0.50/kg, then this equates to an extra £140 per year made on herd A for every 10 cows.

Example 2:

Parameter	Falkland Islands average herd	Theoretical herd
No. cows (>18 mths old) in herd	36	36
Calving interval	2 year	1 years
No. cows breeding annually	18	36
Calving % (per year)	38	95
No. calves born per year	7	34

3. Joining/calving period.

Producers should be aiming for a calving period of 9 weeks, with the majority of calves being born during the early part of the calving period. Hence, this requires a 9 week joining period, equivalent to three oestrus cycles or heats. The survey showed that most farms use at least a 12 week joining period (= 4 cycles). With a more restricted joining period of 3 cycles, it has been estimated that the number of calves produced can be increased by up to 20% over several years.

4. Calving %.

Although an average calving % of 76 was recorded (goal is 95% per year), if cows are only calving every 2 years then this equates to 38% per year. This is on par with a study undertaken several years ago by Michael Gibson which estimated a figure of 33%. Obviously, there is a major deficiency.

5. Bull usage.

Bulls in the Falkland Islands are obviously under-utilised when compared to other regions of the world producing beef. It may be that higher percentages of bull are required for some of the very large camps

here, although with more intensive management and paddock subdivision which is starting to happen, producers may be able to reduce the percentage of bulls used.

When cattle reproduction is limited, there are several consequences: rate of genetic gain is reduced, market requirements may be difficult to fully achieve and there is a poor return on investment of money, time and labour. The deficiencies observed here probably result from a combination of several factors, including feed conditions, genetics (dairy vs. breed) and minimal management inputs. Whatever the cause, the results of this survey highlight the potential for increasing beef production in the Falkland Islands.

WANTED: COW REPRODUCTIVE ORGANS

By Cameron Bell

A strange request, but if anyone is slaughtering cows (of any age or description), I would be grateful if they could please put aside the reproductive organs (ovaries and uterus) for me and note the age of the cow and any relevant history (e.g. had she calved in the past?). They can be stored in a plastic bag and in a cool location. Contact me as soon as possible at the Department of Agriculture, so that I can arrange transportation of them. Such organs will be used in a study I am undertaking investigating problems with cattle reproduction in the Falkland Islands.

Thank you.

CORRECTION TO FALKLAND ISLANDS FARMING STATISTICS 1998-99

Riverview Farm had given the tally for cast sheep as 902 – this total should have been 150 cast sheep and 752 sheep disposed for slaughter to Swan Inlet.

Dunnose Head figures also to be amended as follows: dry ewes 286 and not 250; wethers 1246 and not 900 and cast sheep 50. Total sheep at 31st May 1999 = 3423

Please amend your booklet.

If any reader who has not received a 1998-99 Farming Statistics booklet and would like a copy, please contact Charlene on telephone 27355.

ECO LABELLING

By Robin Thompson

One of the jobs I have inherited since returning to Tasmania is to work with meat processors to develop and implement an eco-label for their export products. What is an eco-label? As you know, many of the lucrative markets for agricultural produce are demanding assurance that the products they purchase meet their requirements for not only eating quality but such parameters as pesticide and chemical usage, animal welfare, sustainable production and environmental friendliness.

The corner stone of any market development programme is knowledge of customer requirements. The next step is devising systems both on farm and in factories that produce products that meet these requirements. The final and perhaps most crucial step is having an independent auditing system that can verify the claims being made. Products for which the process has been completed will be identified with an eco-label which hopefully will become readily recognised and sought after in the world market place. Current indications are that markets are prepared to pay premium prices for such products. The worse case scenario is that absence of such a system may mean that products are unsaleable. This is already true for the Tasmanian onions being supplied to Tesco in the UK. Tesco will not purchase onions unless they are produced in the specified production system that is verified by independent audit.

Japan is a large and lucrative market for Tasmanian beef. Customers are now very conscious of the use of agricultural chemicals in meat production, the overall health of the environment in which the animals are being grown and even the material used to manufacture the packaging material for the product.

I am sure you all remember me saying many times that the greatest competitive advantage of the Falklands is its clean environment and the ability to produce unique products. The literature I have been reading over the last few days confirms the importance of these attributes but also instills a sense of urgency to capitalising upon it now because many of your competitors are already well advanced. It offers the opportunity to convert a commodity such as wool or beef into a distinct and unique product which can attract a premium because of customer comfort and perception.

Robin and his family have settled back into life in Tasmania and is working for The Department of Primary Industry Water and the Environment in Tasmanian. His e.mail number is:

robin.thompson@dpiwe.tas.gov.au

ONE MIX FRUIT CAKE

By Arlette Betts

8 ozs soft margarine; 8 ozs soft brown sugar; 4 eggs beaten; 3 tablespoons milk; 8 ozs mixed dried fruit; 1 oz walnuts - coarsely chopped; 12 ozs self raising flour; ½ teaspoon cinnamon; ½ teaspoon mixed spice

Method:- Grease a deep 8" cake tin and line with greaseproof paper.

Place all the ingredients in a mixing bowl and beat together for 2 - 3 minutes or until thoroughly mixed. Turn the mixture into the prepared tin and bake in a moderate oven (150°C, 350°F or Gas Mark 4) for 1½ hours.

Once cooked leave in the tin for 5 minutes then turn onto a wire rack to cool.

Cake can be frozen by wrapping in tin foil or place into a plastic bag.

HAY MAKING AND PRODUCTION IN THE FALKLANDS ISLANDS

By Gordon Lennie

Cutting grass to produce hay has been an established practise on many farms in the Falklands. Traditionally hay was kept as winter fodder to feed sheep, horses and cattle over the winter months when grass was in short supply.

At present areas under cultivation for hay have remained fairly static over the past five years, with only about 50 hectares of land producing approximately 125 tonnes of hay.

Last season the Department of Agriculture carried out a survey of the hay being produced by some of the farms. The results showed that the quality of hay was mostly low-moderate quality. The reasons for the lack of quality are probably due in part to the late cutting of the grass, resulting in a higher proportion of stem to leaf. Another factor is the rate of drying which if not carried out efficiently can result in a further loss of valuable nutrients and overall quality. Poor weather conditions at the critical period just after cutting can adversely affect the drying period. This needs to be carried out rapidly to achieve a final dry matter content of approximately 85%.

The cutting time is generally aimed at flowering time when leaf area is at a maximum. When a mixture of grasses is sown, the grasses will have different maturity dates and therefore some assessment needs to be made reflecting the overall nutritional value before harvesting. Farmers could take advantage of weather forecasts to time their cutting and baling around the ideal maturity date for the grass.

There are 'conditioning products' on the market which when applied to the cut grass, can reduce the drying period by up to 40% and lead to an increased overall dry matter yield production. The object of the 'conditioning' is to increase plant water loss by breaking the waxy cuticle on the exterior of the plants.

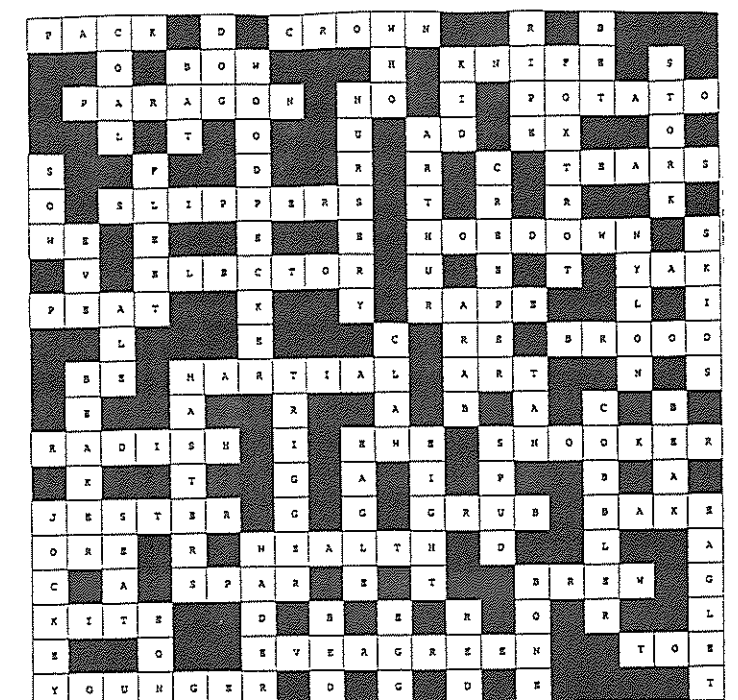
Farmers should be aware that the Department of Agriculture can offer a fodder testing service which will indicate values of protein, fibre, metabolizable energy and digestibility. To get the best results farmers should submit a sample weighing approximately 200 grams for testing. This should come from a larger sample taken from various bales of similar quality, mixed well and then drawing a single sub-sample (200 grams) from those collected. Results can be obtained within four days of receipt of the hay samples into the laboratory.

ANSWERS

TO

LAST MONTH'S

CROSSWORD



**A LETTER FROM STANLEY DAIRY LIMITED –
MILK PRODUCERS AND RETAILERS**

From Malcolm Ashworth – Becksid farm

Once again another “expert” with no practical experience of the Falklands has crept out of the woodwork to tell us how to develop agriculture here. (letter – Robert Carver/August Wool Press 117). It appears his knowledge of organic farming is less than mine. I am convinced that if organic produce in UK could command a 50-100% price premium virtually every farmer in the country would be converting to organic! He says “sprays” would have to be kept out of the Falklands when he should say chemicals. I believe that non-chemical sprays (e.g. seaweed extract) would be quite acceptable. He fails to mention fertilisers at all. Any farmer in the Falklands who has used chemical fertiliser or fed non-organic sourced feed to his/her livestock in the past 2 years has already jeopardised his organic status. If you propose to use organic inputs remember that **you** will end up **paying** the organic premiums!

In order to become or remain organic, certification and regular inspection by various organic organisations would be necessary, as Mr Carver stated, but he omits to mention that the costs of this process would have to be born by the producer. Mr Carver over-simplifies organic production when in reality it is a complicated and expensive process.

I believe Falklands agriculture should initially concentrate on making these islands self-sufficient in temperate foodstuffs. Forget exports and work towards import substitution. When we have satisfied the local market we can then decide what to do with excess production. We need a commitment from Government to progressively restrict competing imports to match increases in local production. This would provide an incentive for local producers to develop or diversify by securing a market for their produce.

If Falkland produce, organic or otherwise, could satisfy overseas buyers regarding quality and quantity remember how much it costs you to ship your wool away. Shipping costs would have to be paid by you or the consumer so you could end up with something you can't afford to produce or your customer can't afford to buy.

FOR SALE

50 HEAD OF CATTLE

All ages, cows & calves, heifers & oxen.

Tame enough to be driven.

Buyer must collect at farm gate.

**Enquiries to Pam and Leon Berntsen,
Albemarle Station, West Falkland.
Telephone: 42309**

GROWING WILLOWS

Malcolm Dawson (Department of Agriculture, Northern Ireland), a specialist in growing Willows for a variety of purposes in U.K. has just been awarded a Shackleton Scholarship funding to investigate the potential of growing Willows for shelter, energy and fodder etc. in the Falkland Islands. He will visit in November, 1999 with the main aim of establishing trial sites and providing advice to those interested in growing Willows. He will be working closely with the Department of Agriculture staff.

If anyone would like to meet Malcolm to discuss Willow growing could you please contact Aidan Kerr on telephone 27355 as soon as possible.

80,000 FARMS EARN UNDER £10,000

Source: Sean MacConnell, Agriculture Correspondent

Aidan had received this report over the email and thought it would be of interest to readers.

Direct payments to Irish farmers last year from the EU and national funds accounted for 69 per cent of farm income, Teagasc figures published yesterday show.

The annual farm incomes survey show that the percentage of income now coming to farmers by “cheque in the post” increased by 15.5 per cent over 1997. And while average farm income was virtually unchanged at £11,000 in 1998, returns from markets show a decrease of 24 per cent even though gross output increased in value by 2.8 per cent.

The figures show that 37 per cent of farms, some 48,000 had an income from farming above £10,000. However, the remaining 80,000 earned less than £10,000.

Of the 48,000 farmers earning above £10,000, 9,000 earned more than £30,000 per year and a further 13,000 between £20,000 and £30,000. More than four out of five of those with incomes above £20,000 were in either dairying or tillage.

Some 40 per cent of farms had an income from farming of less than £5,000 in 1998. This amounts to some 51,000 farms. In half of these, the farmer or his spouse had an off-farm job.

The survey found that 30 per cent of these 51,000 farmers had income support in the form of social assistance or a pension. The number of farmers with incomes between £5,000 and £10,000 remained unchanged at 23 per cent.

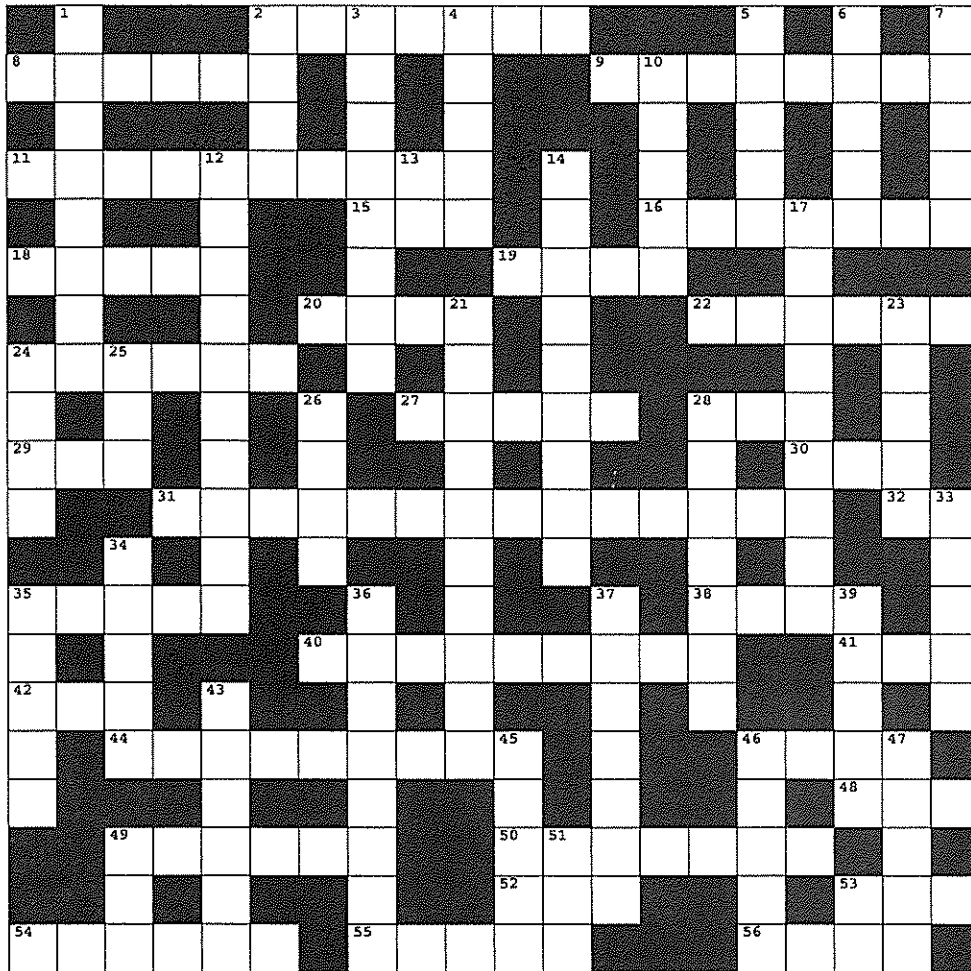
Tillage overtook dairying as the highest income-earner last year. Average income on tillage farms was £19,700, an increase of 26 per cent. This was due to an increase in the value of output, particularly in potatoes, and a reduction in fertiliser and machinery expenditure.

The average income from dairying was £18,900, down by almost 8 per cent on 1997. The increase in the value of milk was offset by a fall in the value of cattle sold off dairy farms and a 6 per cent increase in costs.

The cattle sector showed two different outcomes. Cattle-rearing systems recorded a 3 per cent drop in incomes, while others showed an income increase of 14 per cent due to a 25 per cent rise in direct payments. The incomes of sheep farmers were down by 9 per cent due to poor lamb prices and higher costs. Their average income was £7,200. The survey found again this year that in the lowest income group 86 per cent were involved in rearing cattle and sheep and the farmer tended to be older than the average of 56 years. Some 37 per cent were either single or widowed, compared to 31 per cent in the overall farming population.

Some 27 per cent of farms were receiving payments under the Rural Environment Protection Scheme, and the average income from these farms was £11,400. This, said the report, was 4.5 per cent higher than the average family income on farms not participating in the scheme.

The report concludes that as the average farm income had remained virtually unchanged since the previous year and in 1996, the number of farmers earning over £10,000 has peaked unless increases in scale can be achieved.



ACROSS

DOWN

- 2. MOBILE
- 8. ASK FOR PAYMENT
- 9. SEA MAMMAL
- 11. BRBAD, CHEESE AND PICKLE LUNCH
- 15. SMALL FISH
- 16. SALTY FISH
- 18. MOVIES
- 19. BY AN UNKNOWN AUTHOR
- 20. LYRICAL TUNE
- 22. RURAL WORKER
- 24. TAKE NO NOTICE OF
- 27. MAIN ARTERY
- 28. ENEMY
- 29. FELINE
- 30. POSE FOR ARTIST
- 31. EAST TOURIST ATTRACTION (9,5)
- 32. THAT MAN
- 35. CELEBRATION
- 38. FRUIT FILLED PASTRY CASE
- 40. EGG PLANT
- 41. FISHING TOOL
- 42. CHOPPER
- 44. YOUNG BIRD
- 46. SHALLOW BOWL
- 48. CLUMP OF EARTH
- 49. WOODWORKER
- 50. BALE MARK
- 52. SMALL GARDEN BIRD
- 53. ON ITS OWN
- 54. JUMPER
- 55. YELLOW FLOWERED SHRUB
- 56. THREE FEET

- 1. OLD FIVE PENCE
- 2. NET
- 3. HOLIDAY
- 4. ANIMAL
- 5. OF SIGHT AND THE EYE
- 6. BLACK AND WHITE HORSE
- 7. FRUIT
- 10. LARGE EXPANSE OF WATER
- 12. THE SCIENCE OF FOOD
- 13. NUMBER ABBREVIATION
- 14. SMALL VERSION
- 17. REAPER
- 21. LARGE EAST SETTLEMENT (5,5)
- 23. BADGER HOME
- 24. SMALL IMPERIAL MEASUREMENT
- 25. LOUSE EGG
- 26. FOOD
- 28. BATTERED, FRIED FOOD
- 33. WEAR AWAY
- 34. MENTAL ANGUISH
- 35. LENGTH OF WOOD
- 36. LARGE LEAPING REPTILE (4,4)
- 37. CURLED LOCK OF HAIR
- 39. LOCK OF HAIR
- 43. WANT
- 45. STRONG WINDS
- 46. MILK PRODUCTS
- 47. HUNTING DOG
- 49. JAM POT
- 51. NECK WEAR
- 53. ALTERNATIVELY



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and more!**

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Editor:
Mrs Charlene Rowland

Telephone:
27355

Fax:
27352

e-mail:
doa.fig@horizon.co.fk

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WHAT'S HAPPENING IN GOOSE GREEN

&

CALCIFIED SEAWEED

By Sean Miller

SNIPPETS FROM A HOLIDAY TRIP TO AUSTRALIA

By Bob Reid

FARM HOUSE RECIPES

From Mary Henrickson

EDITORIAL

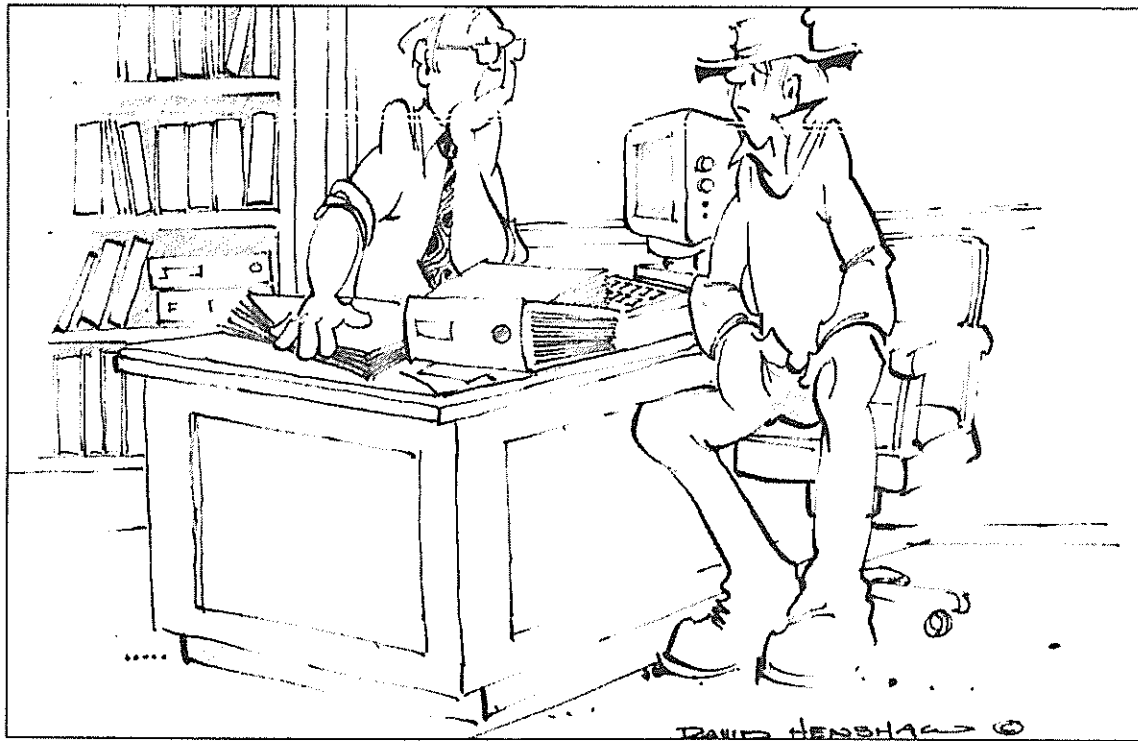
This last month has been a very busy one for the Department. David has been busy planting legume seedlings for various trials and now the polytunnel looks as though Spring has sprung again. Aidan and Timmy were busy planting and measuring trees and erecting parawebbing for shelter in and around the tree sites at Port Howard. On the whole the next few months are going to be a very busy time for all the staff with lambing, shearing, rotavating and planting etc.

Jeremy has arrived. I have not spoken to him about an article for the Wool Press yet, but once he settles in I will be hounding him!

The replacement fencing has all arrived. Lucy and I are frantically trying to sort it all out and get the materials out to you as soon as possible. The plan is to try and get the West Falklands and North Arm fencing all out on the next three voyages.

Congratulations to Suzie and Ian Hansen at Main Point Farm for the birth of their baby boy. Good to see the population steadily increasing in camp!

I must apologise for the Wool Press being very late. This is due to the replacement fencing having to be tallied, allocated and organised for shipment and guess who was landed with that job?



“For some years you’ve been muddling along on the edge of a precipice but this year you’ve taken a great leap forward!” *Cartoon sent in by Lyn Blake of Little Chartres farm.*

THIS MONTHS CONTRIBUTOR'S

Robin Thompson – Ex Beef Specialist	Sean Miller – Animal Nutritionist
Bob Reid – Director of Agriculture	Cameron Bell – Veterinary Officer
Steve Pointing – Snr. Veterinary Officer	Derek Clelland – Laboratory Technician

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NOTIFIABLE DISEASES

By Steve Pointing

The Animal Health Ordinance May 1998 makes it a legal requirement for owners of livestock to report certain types of disease to the relevant authorities (i.e. the Veterinary Service or the Police). These diseases are called “Notifiable” and include such well known diseases as Foot and Mouth Disease (FMD) and Rabies and some that you may never have heard about like Rift Valley Fever and Lumpy Skin Disease. You might well say to yourselves that you wouldn’t recognise the symptoms of most of these diseases if they hit you in the face and I don’t expect you to, but all of them would be expressed in one, or usually a whole group, of animals exhibiting abnormal signs of behaviour – such as not wanting to walk, drooling at the mouth, going off their legs, showing signs of severe itchiness or even large numbers of deaths. If you see anything unusual in an individual animal or a group of stock then please contact the Veterinary Service - You are our eyes and ears in the field.

As well as these “exotic” diseases, in the Falklands we have also included some diseases that would often not be listed in many other countries and this is because we have none of the really devastating animal diseases here at all. In this category (still notifiable) are the likes of Brucellosis (both bovine and ovine), canine distemper, hydatid infection, sheep scab, scrapie and BSE. I would draw your attention to the fact that hydatid infestation is notifiable by law so please report any suspect cases to this department together with any tissue samples if you are at all in doubt. This enables us to keep a reasonably accurate record of the current incidence of this disease.

For the remainder of this article I would like to concentrate on the Transmissible spongiform encephalopathies – “what the hell are those?” I hear you all say. Well they include two well-known diseases namely BSE (bovine spongiform encephalopathy) and Scrapie. In the Falkland Islands there has only been one confirmed case of BSE and this was in an animal imported from the U.K. Although potentially contaminated foodstuff was also imported from the U.K over a relatively long time period this has never been used extensively and there have been no further, positive cases since the single case in 1989. (A second suspect case was investigated on the same farm in 1998 but examination of the brain from this individual proved to be negative for BSE). Even allowing for the long incubation period for BSE it would appear unlikely that any new cases will now occur.

In the case of Scrapie there have never been any cases recorded in the Falklands. Then why should you need to be aware of this condition? Officially (according to the rules used by the O.I.E – the animal equivalent of WHO) there are only 3 major sheep producing countries free from Scrapie – these are Australia, New Zealand and the Republic of South Africa. The disease has never been recorded in Chile, Argentina or Uruguay. Although the Falklands is almost certainly free too it is difficult to actually prove that this is to be the case. One of the ways of being reasonably sure that this is the case is for farmers and stockmen to report any suspect cases so that we can investigate them. So what are the clinical signs of Scrapie.

- The clinical disease generally affects 2-5 year old animals, with occasional cases in younger or older sheep.
- The onset of clinical signs is insidious with no febrile reaction. Initially, there are subtle behavioural changes. Affected sheep may stand apart and tend either to lead or trail the flock when driven.
- Eventually the animal becomes hyper excitable. It carries its head high, has a fixed stare and runs with a high stepping gait.
- The next stage is incoordination of the hind legs and the animal becomes unsteady on its feet.
- Handling may result in fine tremors of the skin and convulsions and rubbing the back often results in vigorous nibbling movements.
- There is usually an intense pruritus (itchiness) – shown by compulsive nibbling, rubbing or scraping against objects – leading to skin and wool damage.
- In the final stages of the disease there is a loss of body weight and condition prior to recumbency and death.

There are no viable tests on the live animal so a diagnosis relies on the clinical picture and a post-mortem examination of the brain, which reveals telltale signs of infection with the Scrapie agent.

When you are gathering up your sheep for this year's shearing and marking please note any abnormalities observed and let us know about them. The chances are that the Falklands are, indeed, free from Scrapie (thanks mainly to the fact that the wool breeds here have been sourced from Southern Hemisphere flocks) but some of those sheep that die each year in camp might just be succumbing to the final stage of some disease rather than old age, lack of food or extreme weather conditions.

TALKING OF SHEEP

From Rob Pitaluga of Salavador farm

Talking of sheep, how much would you pay for one? "Sheep are being sold for less than the cost of one potato crisp as livestock prices continue to plummet," says a story in the Times. That's a cheap night out for a Welshman. Apparently, a Scottish hill farmer received a cheque for 18p, which was his profit after selling 183 ewes at auction. "It's the worst month I have ever known," says head sheep auctioneer Alastair Logan, "and I believe it could get even worse." Calum Sinclair, who farms 4,000 acres in Argyll was "speechless", although he did manage to say: "I never dreamt of getting such a tiny amount for those sheep. It has cost me £150 for the 80 - mile transport costs to take the sheep to auction." He'd be better off learning to be a butcher, at least then he'd have several years' supply of mutton stew.

BREEDING FOR PROFIT

By Robin Thompson

Last week I attended a seminar at which Geoff Nicoll, a well known New Zealand animal breeder was one of the invited speakers. Geoff runs the genetics and nutrition unit from Landcorp Farming Ltd which is a state owned enterprise and New Zealand's largest farmer running 806,000 sheep and 128,000 cattle.

Landcorp must make a profit so it's animal breeding programmes are totally driven by this need. This breeding for profit objective has led them to use market signals to determine the animal characteristics that drive profit and then animal breeding principles that allow these characteristics to increase in the animal populations.

Market signals told Landcorp that the most profitable lambs were those with high carcase weights, large muscle areas and low fat. In order to produce such animals Landcorp screened 501,000 ewes over a two year period and selected the top 0.8% to form the nucleus of a breeding programme to produce animals with the desired characteristics. In this system, the profit making characteristics were paramount so breed was irrelevant as the final elite ewe flock consisted of Dorsets, Texels, Romneys and Perendales. Interbreeding within this group and introducing high performing young females from outside resulted in a new breed or type called the Landcorp Lamb Supreme. Because genetic improvement is a slow process a range of trait assessment methods including visual, ultrasonic scanning, weighing, computed tomography scanning and across flock analyses were used with the aim of maximising genetic progress and thus profit. After about eight years there is clear evidence that the breeding programme is working as lamb live weight is increasing by 350 grams per year and eye muscle area by 0.26 square centimetres per year.

Take a moment and replace Landcorp with Falkland Islands and lamb with wool and you have just read a story written in 2010 of how a group breeding programme coupled with a desire to be profit driven was one of the saviours of the Falkland's wool industry.

If you want this to happen don't get hung up by a can't do philosophy because the above example demonstrates the power of numbers and what can be achieved by a large breeding programme that is being driven by profit rather than sentiment, traditional methodology and breed loyalty.

ORGANIC FOOD

Source: Guardian Weekly September 9, 1999

Consumer demand for organic food is fuelling a boom that has led to a 20 - fold increase in sales in just three years for the supermarket giant Tesco, and a 125 - fold rise since 1995 for Sainsbury.

Organic food accounts for 3-4% of all food sold in supermarkets.

CATTLE BREEDING RESULTS

By Cameron Bell

Cattle reproduction in the Falkland Islands has historically been typified by cows only breeding every 2 years and low pregnancy rates to both natural mating and artificial insemination (AI). The results of a survey I carried out (Wool Press issue 118) highlighted several areas of inefficiency, however there appears to be factors inhibiting efficient reproduction. These were further highlighted when the results for the last 2 AI/breeding seasons were analysed.

Results of 1998 mating season

	Submission rate ¹ (%)	% of submitted cows pregnant to AI	% of synchronised cows pregnant to AI and bull
NBH ² dry cows	49	26	24
NBH wet cows	19	29	14
NBH total	45	34	50
Other farms	90	43	-

¹ Percentage of cows synchronised that displayed signs of oestrus

² National Beef Herd

Results of 1999 mating season

	Submission rate (%)	% of submitted cows pregnant to AI	% of synchronised cows pregnant to AI and bull
NBH dry cows	94	22	59
NBH wet cows	58	18	34
NBH total	75	21	46
Other farms	98	25	48
Farm A	95	26	53

From this data, there are two obvious problems:

- (1) **submission rate:** good rates for 1999 dry NBH cows and 1998/99 other farms (most cows synchronised on other farms were dry), but low submission rate for 1998/99 lactating cows. This is suggestive of *lactational anoestrus* being involved (presence of a suckling calf and seasonal influences depressing reproductive cycles).
- (2) **conception rate:** poor for both AI and natural mating. This confirms that the problem doesn't lie with the vet as the total percentage of cows pregnant to AI and bull (last column of table) should have been at least 95%, ie. even after the bull has been with the cows, a large proportion did not get in calf. For example, Farm A (1999) had a good submission rate and low conception rate to AI, but even after the bull had been with the cows, 47% had not conceived.

The cause of such problems can often be difficult to diagnose, but some possibilities are:

- general nutritional deficiency (energy and protein)
- lactational anoestrus (at least part involvement of this)
- phytoestrogens causing infertility (chemicals produced by plants or fungi that grow on plants)
- trace element deficiencies
- disease causing infertility and abortion

Investigation of the cause(s) of this problem is of high priority, and is now under way by the Department of Agriculture, as optimal reproduction is essential for maximising beef cattle production.

CATTLE AUCTION

By Sean Miller

With the interest in last year's auction suggesting that this form of cattle sale can be useful for the Falkland's cattle industry, we wish to gauge your interest in a repeat effort soon.

Some interest has already been expressed in the last few days. Furthermore, we would like to use the auction as an outlet for our surplus steers from this year's calving at the National Beef Herd.

By the time you read this, Jeremy Challacombe will be in residence at Goose Green, and will be following up with last year's sale participants.

We need to know if you wish to place any cattle in the auction as soon as possible. This will allow us time to have a look at the animals, weigh them, and compile a catalogue for the day.

If we are to go ahead, a date in November would be the likely time. Please get in touch with either Jeremy or myself so we can get things underway immediately.

G & S SHEARING SUPPLIES

Goose Green. Tel/fax: 32235

Heiniger Combs, Pro Legend, Quaser and Charger. Handpieces and cutters, cover combs, grinding papers and latex glue. Most spares for Heiniger handpieces.

Warrie products now available:

Back aids, back aid springs, ellery pendulums, cutter dispensers, comb pouch (holds 36-40 combs), comb brush with scraper, back warmer, singlets (longtail fleecy) all sizes, sweatshirt (longtail fleecy half sleeve) all sizes, telescopic shed paddles & tally counters.

Wool Tops:

Check brush jackets (half zip) all sizes, steel worker jacket (two button) all sizes, (Swandri type) bush jackets & open front check jackets.

On order:

Children wool jackets & adult shearing trousers.

Expected early 2000 – Sunbeam shearing motors, grinders & handpieces.

WHAT'S HAPPENING IN GOOSE GREEN?

By Sean Miller

Since Robin left us 'holding his babies' (calves, that is!) things have been flat out like a lizard drinking. The number one task at present is getting a few yards of dirt worked up ready to plant these whiz bang legumes that Bob and David have been enthusing about.

Gearing up for the legumes

David's preliminary glasshouse and small field enclosure experiments have shown the potential of some pretty amazing plants. Now it's time to get them out in the real world so we all can see just how good they are, and that they can really grow and survive in true camp.

A succession of bums have been placed on tractor seats over the last 2 months and we are well underway to having 150 ha+ cultivated by early October ready for planting over spring, summer and autumn, and on display in time for next years Open Day.

We've got plans to sow a range of plants with different purposes. David has various lupins to put into some of the drier areas (tree/Russell lupins and fodder varieties), a good quantity of *Lotus* to sow on the wetter whitegrass flats, a range of clover varieties to place in some grass+clover mixes and as pure clover stands, and some seed from a plant called *Seradella*.

A pasture establishment demo

We are also planning a pasture establishment demonstration. The idea behind this is to compare the various methods of planting a new pasture. These 3 ha sites will be side by side and cover the range from traditional rotavation and broadcasting seed, to rotavation and direct drilling, disk ploughing and drilling, and some burning and chemical pre-treatments followed by sowing and rolling or trampling sown seed.

Specialist forage crops

In some other areas we have plans to try out a few fodder crops to fill some feed gaps for the sheep and cattle. We already have about 40 ha of oats and cereal rye planted. During spring and summer we hope to plant another 40 or 50 ha to a variety of other fodder species, namely kales, forage rapes, stubble turnips, Chinese cabbages, and swedes. If any of you coming to Goose Green lately have noticed FLH's swede patch between the High Hill and Stanley gates, you'd be impressed with the potential that these plants have to provide a large quantity of high quality feed for use during the middle part of the year.

A further benefit of these forage crops is a 'pre-pasture' benefit. Strip grazing these crops allows a build-up of faeces and urine (fertility), compaction of the soil by trampling, and good weed control. A quick clearing once the crop is fed-off should leave a perfect seedbed for direct drilling a new pasture; make use of that new fertility!

Poor cow fertility

Part of the reason for the forage crops is to undertake an experiment to sort out the apparent cow fertility problem that we are experiencing at Brenton Loch. The experiment will be run from January to April next year, and will involve about 180 cows fed either a very high quality diet (forage crops) or natural camp. We will then try and sort out whether it is the level of nutrition that is the problem of poor fertility, or whether previous pregnancy status is affecting the cows. Alternatively, we have a theory that there may be a natural *oestrogen* being produced by a fungus in whitegrass during summer. If so, the cows could in fact be *on the pill* as a result. We hope to have some answers by early winter next year.

An alternative to rotavators?

We're trying an offset disk plough as an alternative to the rotavator. In the drier diddle-dee+whitegrass areas, two passes with the disks provides a cultivation as good as a single rotavation. The main difference is in the operating speed. We can do at least 2 ha an hour with the disks compared to 0.5 ha an hour with the 90 inch rotavator. Even with 2 passes of the disks, twice as much ground can be prepared compared to the rotavator over the same time.



The disks arrived with cutaway plates on the front and plain disks on the back. Unfortunately the plain disks are not much use in this country where there is so much vegetation to deal with, particularly in whitegrass areas. In effect, the plain disks just skip over the trash. The plans are to put cutaway disks in their place so that two rows of cutaways can cut up this trash more effectively in a one-pass operation. The cutaway disks act like serrated edge knives; cutting up the whitegrass and turning the top couple of inches of soil over. To deal with the huge amount of whitegrass trash, it may be necessary to burn before disking.

At present the wet whitegrass flats are just too wet to get the disks on them (they weigh 3 tonnes, depth is controlled by hydraulic rams and flotation tyres). Once they dry out a bit we'll get stuck in and see how the disks compare to the rotavator there. We'll keep you informed on the disks' progress as our cultivation exercise continues. If we can get them to do the same job as a rotavator, the time (and power, fuel, and wear and tear) savings are obvious, and they offer the chance to 'get serious' and develop large areas quickly.

The calves are weaned

By the time you read this the calves will be weaned. The influence of the Angus sires used last year is readily apparent in both the rate of growth of the calves and their general appearance. By June this year the top rated calves had already cleared 180 kg liveweight. Between March and June the calves gained an average of about 0.45 kg per day. At weaning, the calves weighed an average of 115kg. The early born Angus-cross calves (January 1999) weaned at about 130 kg, compared to the later born, FI-bred calves which averaged 95 kg. The heaviest young bull topped 180kg. Not bad for 8 months in camp!

Other stuff

Most other things have been put 'on hold' temporarily until we get these jobs out of the way, and until Jeremy and Sue Challacombe arrive to return the Goose Green workforce to full strength. Some of those include finishing the wether trial and drench capsule study samples from earlier this year, finalising the sheep, cattle, and *cattle versus sheep* diet work, more subdivision fencing at Saladero and Brenton Loch, erecting storage and hay sheds, carting and spreading 60 tonnes of fertiliser, and planning some more trials to sort out whether local Corriedales can produce good meat carcasses, and supplementing hogs and pregnant and lactating ewes to improve production and wool quality.

CALCIFIED SEAWEED

By Sean Miller

No doubt you've heard Bob spread the gospel of calcified seaweed over the last couple of seasons. If you haven't (where have you been?!), calcified seaweed is one of the key ingredients in developing high quality legume pastures in the Islands.

Legumes need two key conditions to survive; good soil phosphorus (P) levels and a 'good' pH. Falklands pastures are renowned for having very low soil P levels, and a very low (and thus legume-unfriendly) pH. In the Pasture Improvement Programme, the P requirement for these pastures will be met with rock phosphate.

Improving pH

Soil pH can be improved by using calcified seaweed. Acting in the same manner as lime, the calcium in calcified seaweed helps to neutralise the soil acidity, and makes it more hospitable for the rhizobia bacteria which put nitrogen back into the soil. Without the benefits of more legume-friendly soil pH, the range of legumes we have available for use is limited. Improving pH means we can use a wider range of legumes in the Falklands, and means that those we do use can be far more productive.

A second benefit of calcified seaweed is its ability to reduce aluminium in soil. Aluminium is toxic to plant roots. Reducing soil aluminium thus helps plants grow more vigorously. This applies to grasses in particular.

Saladero seaweed

As a part of our pasture improvement efforts at Brenton Loch and Saladero this year, we are developing the calcified seaweed deposit we have at Rabbit Island on the northern end of Saladero.

During September, Karen Marsh and I spent two days excavating calcified seaweed from a beach plateau and spreading it on a 20 hectare site adjacent to Rabbit Island. The task itself was surprisingly easy. Using the Ford 7610 tractor with a front-end loader and the Massey 4270 with the 5 tonne fertiliser spreader, we were able to spread 5 to 6 tonnes of calcified seaweed per hectare over period of about 9 hours.



This quantity of calcified seaweed should be enough to raise the pH of the soil by at least 1 pH unit (from about pH 4.7 up to pH 5.5 or 6). Combined with an application of rock phosphorus, this site should be ideal for sowing a very high quality legume pasture. After burning and rotavation in October, we hope to plant the pasture before Christmas.

With a bit of luck and fair weather, we hope to have something special to show you at next year's Open Day.

FANCY THESE BEHINDS?

By Sean Miller

The calves have been weaned at the National Beef Herd. Amongst them we've kept several young males as bulls for the time being. Some farmers have already selected a bull and have taken them to their new homes.

Given the obvious beef quality of the remaining few bulls (just see the photo), it would be a great shame to see them 'two stones lighter'.

If you are heading your herd in a beefier direction, it's not too late; you can still get one of these bulls. At £100 each they are excellent value, and an opportunity too good to miss.

Please give me a call if you do want one of these young, black studs before they get ready to sing falsetto!



PLANTS THAT COULD PUT FARMERS IN CLOVER AGAIN!

Source: An abstract from *The Express*, 16/09/99

Hard-up farmers could soon be growing new cash crop for medicine - wild flowers. The agricultural revolution would turn Britain's fields into a riot of colours and restore lost habitats for declining species like skylarks, butterflies and bumble bees.

The farmers have been handed the lifeline by the pharmaceutical industry, which believes that hundreds of common plants like bluebells, dandelions and red clover can be harvested to produce huge quantities of valuable drugs.

Researchers are also tapping into centuries-old folk remedies in the belief that medieval wise men knew something they do not. They hope bluebells and clover could offer cures for TB and cancer.

The move could let farmers claim a share of a global industry worth 6 billion a year and offer a long-term way of easing the current farming crisis, which is the worst since the 1930s. They would treat the plants as mini-factories producing the basic ingredients of medicine but without any need for genetic engineering.

About 100 British farmers are already taking part in the pioneering research by growing crops from clover to primroses.

The move was given a cautious welcome by the National Farmers' Union and environmentalists. The NFU's alternative crops adviser Rachel Wright said: "We would be absolutely delighted if we found some way of increasing markets for farmers of non food crops."

"There is a crisis in farming and the more market opportunities for farmers the better, especially if the crops provide health benefits."



SNIPPETS FROM A HOLIDAY TRIP TO AUSTRALIA

By Bob Reid

Beef Field Day

I took the opportunity of listening to Phil Holmes, a leading NSW Farm Business Consultant, at a field day organised by the Tasmanian Farmers and Graziers Association.

He told about 200 producers that beef was the most difficult of all agricultural enterprises in which to make a profit. This is because, unlike wool and cropping, beef did not attract any significant price differentiations or premiums. He said that the aspect that really made it difficult was the high cost of production.

On average, beef production costs Aus\$1.20 kg (liveweight) £0.50p, but to be profitable producers had to be able to produce 1kg of beef for Aus\$0.50c, £0.20p, or less. "It's really not that difficult to do if you pay attention to the things that really matter" he said. One of the most important things was to get the operating scale right. "It's a lot easier to make a profit on a reasonably big herd, of 400 plus" he said. Many farmers have smaller herd sizes and often combine beef operations with three or four other enterprises. "There's more money to be made in agriculture by specialising and doing something well than in trying to have five or six enterprises running and ending up doing a pretty ordinary job on all of them."

He also advised farmers to keep spending money, on the expenses that affected profitability such as fertiliser, pasture and chemicals. If costs had to be cut at all, producers were better off to reduce overheads such as wages and insurance.

"The best way to reduce cost of production is to produce more kilograms of beef from the same cost base," he said. This could be done by focusing on productivity, getting the stocking rate up, selling steers heavier rather than lighter and maximising the kilograms of beef turned off. "If you can do all those things your future in beef is pretty good".

Wool Future

In Australia a build-up of on farm wool stocks is expected to subside to normal levels in the next five years as an expected lift in prices draws extra wool onto the market.

The Woolmark Company's Business Intelligence Unit has forecast an extra 184 million kilograms clean (1.55 million bales) from growers and Woolstock Australia's stocks will flow onto the market by the end of 2002/03, bringing stock holdings down to a more manageable level.

Woolmark's World Wool Supply 2005 report predicts that by mid 2003, stock holdings will fall to their normal position of about 50m kg (420,000 bales - based on a 66% yield and 180kg greasy bale weight) if prices begin a cyclical upturn.

Given that Woolstock Australia is expected to dispose of 1.055 million bales between 1999/00 and 2002/03, that leaves producers to sell off 493,000 bales. The release of stocks is expected to supplement Global Wool Production which is forecast to contract to a 40 year low next year, as poor global wool prices take their toll.

But forecast higher prices and the rundown of stocks is expected to help a mild production turn-around by 2005.

The Business Intelligence Unit expects world wool production in 2000/01 to fall to 1349 m kg clean, down 8% from the 1454 m kg produced in 1996/97 and down 2% from the season just ended. Supply is expected to lift slowly in 2000/01 and 2001/02 as sales from stock and production start to respond to a modest increase in wool prices.

The forecast is based on the assumption that world economic conditions will rebound, increasing demand for apparel and therefore increasing the price of wool.

Super Sheep

The debate over genetically modified foods is filling the media daily. Now a group of scientists at the Wool Biology Unit, Waite Institute, South Australia are using the same principles to develop sheep which grow more wool, with stronger fibres, that won't shrink in the wash. It is the only research project of its type in the world and is funded by the Co-operative Research Centre for Premium Quality Wool and uses the process of transgenesis and eventually cloning. The project has three aims; The first is to boost staple strength, another is to increase wool production through sulphur utilisation and a future aim is to reduce garment shrinking by changing the properties of wool fibre.

Reactions to the "McLachlan Report."

Arguably this report by The Wool Industry Future Directions Task Force has been the most talked about document by farmers, and even the general public, in some time. Since its release 3 months ago wool producers have been holding meetings all over Australia to agree, or not, with its recommendations and to assess their own future.

I took the opportunity to "sit-in" on two farmer meetings in Tasmania - a fly on the wall so to speak - so that I could get a feel for their reactions.

In general the reaction to the report, somewhat suprisingly I thought, was to accept its main thrust that the future well-being of wool producers was their own responsibility and not the ubiquitous "they". Lack of farmer participation in the major decision making forums was accepted as a principle factor in the lack of profitability. As one farmer said to me "for too long I have thought all I had to be was a good farmer but its now obvious that I should have been asking some hard questions". Another said that Australian wool producers had made a mistake in his/her determination to maintain a false market. "The people never wanted the price of wool to drop. The Government guaranteed the price support scheme but this stopped contact between the grower and the mill". One of Tasmania's award winning farmers is worth quoting, "It's no use doing more of the same if it's failing. We have to do something about the antiquated movement of wool from the grower to the garment. There is nothing wrong with the product, but there's an urgent need to restructure at all levels of the wool pipeline".

The consensus at both meetings was that a new organisation be formed to (as recommend in the report) oversee research and development, facilitate the introduction of new technology, wool test, commission wool innovation and to commercialise the results, for the maximum benefit of the shareholders (farmers). That Australian growers promote Australian wool in direct competition to other countries and that intellectual property be exclusive to Australian farmers. One farmer when asked as he left the meeting about how he felt about wool producers survival said "we're a persistent bloody lot".

URGENT- WANTED TO BUY

Wineglass Station urgently require a set of **Double Nip Ear Markers** to be used as a station mark..

If you have a set that you no longer require and would be willing to sell, new or secondhand, please contact Bobby Short on telephone no. 32280 or Peter Short on tele/fax no 21297 or telephone 21849.

NOTICE

None of the monies in the Agricultural Incentive Scheme has been allocated to the farm shop that is being developed in Stanley.

R. Reid
Director of Agriculture

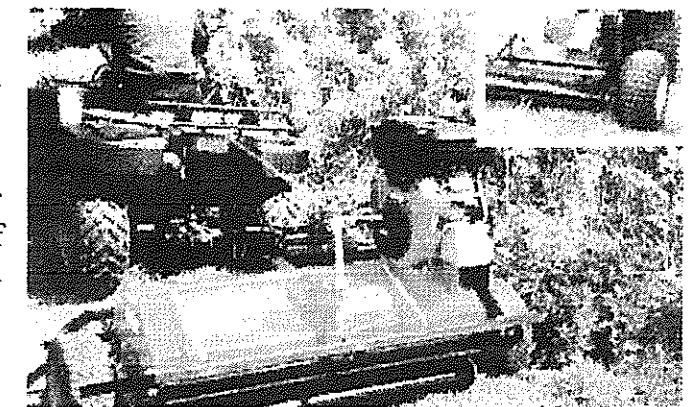
LOGIC - ATV Equipment

As a lot of farms are doing Whole Farm Plans, I though a page of attachments for 4 wheelers would be of some help in obtaining prices etc. There is a wide range of different attachments. If anyone would like a copy and a price list, I will ensure to post you one. If you would like any information, whether it's on any of this equipment or others, please contact me and I will see what we have in our filing cabinet. *Charlene*

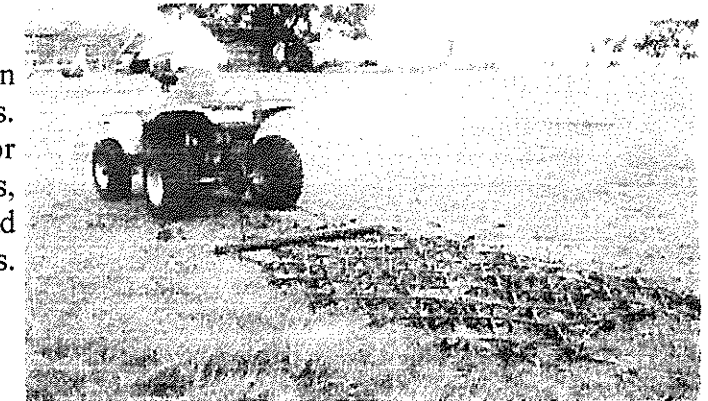
UET range low cost - top quality Kit Trailer for easy self assembly, or factory built. The basic platform 1500 x 1000 with 80mm sides has many uses and can be extended with 380mm low sides for general use or 800mm high sides for livestock. As with all Logic trailers fitted with 1/2 lapped timber floor, quality stub axles and bead lock wheel rims for added safety. Cost £545.00.



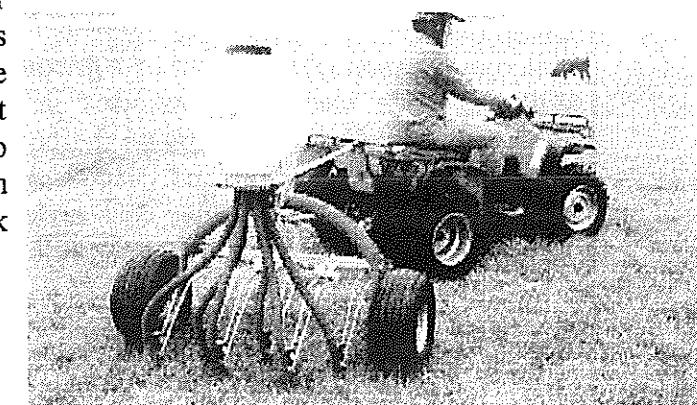
Flail Mowers are strong and reliable, suitable for most grassed area e.g. paddocks, orchards, roadside verges, field headlands, fire breaks, footpaths and lawns. Choice of engines 13hp or 14 and 16ph 'V' twin options to suit widths of 1m, 1.2m and 1.5m. Inset shows version fitted with LGP wheels for difficult conditions. Price: £2510.00.



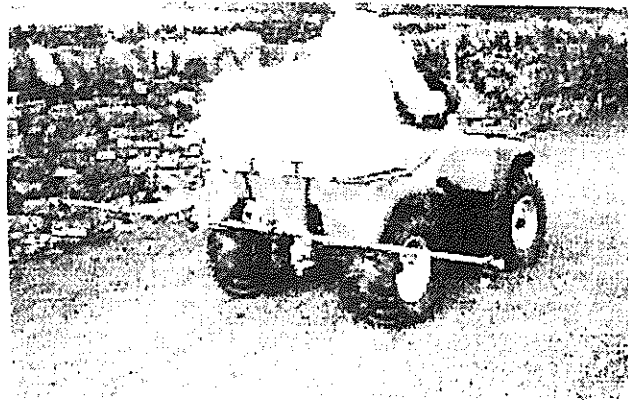
Chain Harrows are a hard working proven product available in 1.2m and 1.8m widths. They can be used on either side and are ideal for aerating grass swards, pulling out moss, preparing fine seed beds, levelling surfaces and maintaining all weather tracks or training areas. Price: £185.00.



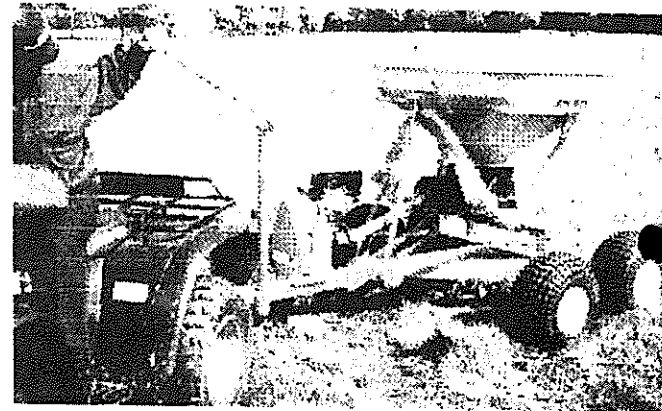
Seed Spider is a precision seeder developed for sowing seed e.g. grass seed mixtures. Its electronic metering system can handle a wide variety of seed types. Hardened chisel point openers allows use in grassland for direct (no tillage) seeding, ideal for patching worn paddocks, etc. Row widths full adjustable, work rates up to 1ha/hr. Price: £2495.00.



135ltr capacity On Board Sprayer with 12 volt 9ltr/min at 3 bar (40 psi) electric pump, also features full pressure control including regulating valve, pressure guage and agitation/tank return mixing facility giving correct spraying application for all handlance and boom options up to 3.5m. Price: £645.00.



System 40 Tandem Axle fitted with fertiliser spreader driven by either standard or reverse drive engine provides a unit capable of working in very soft conditions as well as improved stability on steep or rugged conditions. Removal of spreader for tractor use can be carried out in a few minutes. Price: £1785.00.



Replacement Seat covers for re-juvenating worn or damages seats. Easy to fit, and available to fit most ATV seats. Price: £19.95.

Note: all prices shown include VAT



WANTED – STANLEY RAINFALL DATA



Does anyone have records of rainfall for Stanley from January 1998 onwards. If so would you please let us copy them so we could compare with our data.

Please contact the Department of Agriculture on telephone 27355.

GROWING WILLOWS

Malcolm Dawson (Department of Agriculture, Northern Ireland), a specialist in growing Willows for a variety of purposes in U.K. has just been awarded a Shackleton Scholarship funding to investigate the potential of growing Willows for shelter, energy and fodder etc. in the Falkland Islands. He will visit in November, 1999 with the main aim of establishing trial sites and providing advice to those interested in growing Willows. He will be working closely with the Department of Agriculture staff.

If anyone would like to meet Malcolm to discuss Willow growing could you please contact Charlene Rowland on telephone 27355 as soon as possible.

CATTLE HORNS WANTED, ALL SHAPES AND SIZES

I am wanting cattle horns of any size and amount – if any of you have any kicking around and wouldn't mind sending them in I'd be very grateful (freight charged to me). Please send either to the Department of Agriculture or 11 James Street, Stanley.

Thank you,
Lucy Ellis

COMPOSTING MICROORGANISMS

Composting occurs through the efforts of microorganisms. Although larger organisms such as worms and insects play a role in composting at lower temperatures, microorganisms are the main workers.

Composting involves a diverse group of microorganisms. No one species or organism dominates because the materials and conditions vary and continually change. Conditions vary from one pile to the next, over time within a given pile, and at different sections of a pile at a given time. This creates many different localized environments, each populated by a mixed group of microorganisms. The diversity of microorganisms helps keep the composting process from collapsing when conditions change.

The major groups of microorganisms that participate in composting are bacteria, fungi and actinomycetes. All three groups of microorganisms have mesophilic and thermophilic species.

Bacteria are small, simple organisms. They exist in a wide variety of forms and environmental conditions. In composting, they are the most numerous of the three groups of microorganisms. They are generally faster decomposers than other microbes.

Fungi are larger organisms. Many fungi form networks of individual cells in strands or filaments. They are more tolerant of low-moisture and low-pH conditions than bacteria but are less tolerant of low-oxygen environments. Fungi are also better at decomposing woody substances and other decay-resistant materials.

Actinomycetes form filaments like fungi; but because of their small size and cell structure, they are technically classified as bacteria. Like fungi, actinomycetes are primarily aerobic. They tend to become more pronounced after the easily degraded compounds are gone and when moisture levels are low. They have a low tolerance for acidic conditions.

Bacteria tend to flourish, especially in the early stages of composting, before the easily degraded materials are consumed.

FARM HOUSE RECIPES

From Mary Henrickson

Fungi and actinomycetes become more important near the end of composting, feeding on the resistant materials that remain. As long as conditions remain favourable for composting, bacteria continues to dominate. However, at low pH, fungi gain an advantage. Low-moisture conditions favour fungi and actinomycetes. Low oxygen reduces fungi and increases anaerobic bacteria.

As the pile heats, thermophilic organisms of all groups play a larger role, though mesophilic organisms may continue to survive. If the temperature continues to rise above 160°F, nearly all active organisms die, leaving only the heat-resistant spores formed by certain species of bacteria and actinomycetes. As the pile cools again, spore-formers, thermophilic populations, and then mesophilic populations recover. Eventually the pile cools enough to be inhabited by common soil microorganisms, protozoa, worms, mites, insects, and other large organisms that feed upon microorganisms and organic matter.

Microorganisms which are deliberately added to the materials to improve composting are referred to as inocula. The use of inocula has been suggested as a way to accelerate composting or improve its efficiency by providing the proper set of organisms or enzymes. However, most studies have shown that inocula are neither necessary nor advantageous to composting.

The availability of microorganisms is rarely a problem in composting. Microbial competition and composting environment ultimately determine which and how many organisms persist. The most effective and successful microorganisms are usually present naturally. However, inocula may be beneficial with a few materials that are slow to develop a large community of organisms. This situation is often referred to as a lag period, is rare but occurs with certain raw materials such as sterilized food waste. In general, it is best to inoculate a material with active compost made from that same material.

Pathogens are organisms which are or can be harmful to humans, animals, or plants. Animal and plant pathogens can be found in manures, crop residues and yard wastes. A few composting materials, primarily sewage sludge, contains human pathogenic organisms. The high temperatures achieved during composting, assisted by the competition and antagonism among the microorganisms, considerably reduce the number of plant and animal pathogens. While some resistant pathogenic organisms may survive and others may persist in cooler sections of the pile, the disease risk is nevertheless, greatly reduced.

Several species of fungi associated with composting, most notably the fungus *Aspergillus Fumigatus*, can cause allergic reactions in some individuals and may create complications for people with existing health problems. Although such adverse reactions are not common, it is important to recognize that they could occur and that appropriate safety measures should be implemented.

Source: On-Farm Composting handbook

MADEIRA CAKE

10ozs butter
10ozs castor sugar
5 eggs beaten
1lb flour ½ each of plain and self raising

Method:- Cream butter and sugar until light and fluffy, gradually add beaten eggs, beating thoroughly after each egg then fold in the flour. Pour into a deep 8 inch cake tin and bake for 1½ - 1¾ hours at 160°C, 350°F or Gas Mark 3. Test with a skewer and leave longer if necessary.

FARMHOUSE CAKE

8ozs butter
8ozs castor sugar
Grated rind of 1 orange
4 eggs beaten
8ozs self raising flour
½ teaspoon nutmeg
30zs ground almonds
14ozs mixed dried fruit
3ozs glace cherries
2ozs blanched split almonds

Method:- Grease and line an 8 inch deep cake tin. Cream the butter and sugar with the orange rind until light and fluffy. Add eggs a little at a time, adding a little flour between each egg to prevent the mixture from curdling. Fold in the nutmeg, ground almonds, fruit, cherries and flour. Turn into the prepared tin smooth the top and arrange the almonds over the surface. Bake in a warm oven 160°C, 325°F or Gas Mark 3 for 2¼ - 2½ hours.

RICH SHORTBREAD

8ozs butter
4ozs castor sugar
10ozs plain flour
2ozs fine semolina or ground rice
A little extra castor sugar

Method:- Lightly butter and flour 2 x 7 inch sandwich tins. Cream butter and sugar until light and fluffy, sift in the flour and semolina together and add to the creamed mixture a little at a time. Draw together and knead lightly until smooth. Divide in half and press each half into a prepared tin prick all over with a fork and sprinkle with extra sugar. Chill in fridge for 15 minutes then bake in a warm oven for about 30 minutes until pale brown (160°C, 325°F or Gas Mark 3). Leave in tins for 5 minutes then cut while still soft, cut each one into 8 triangles and cool.

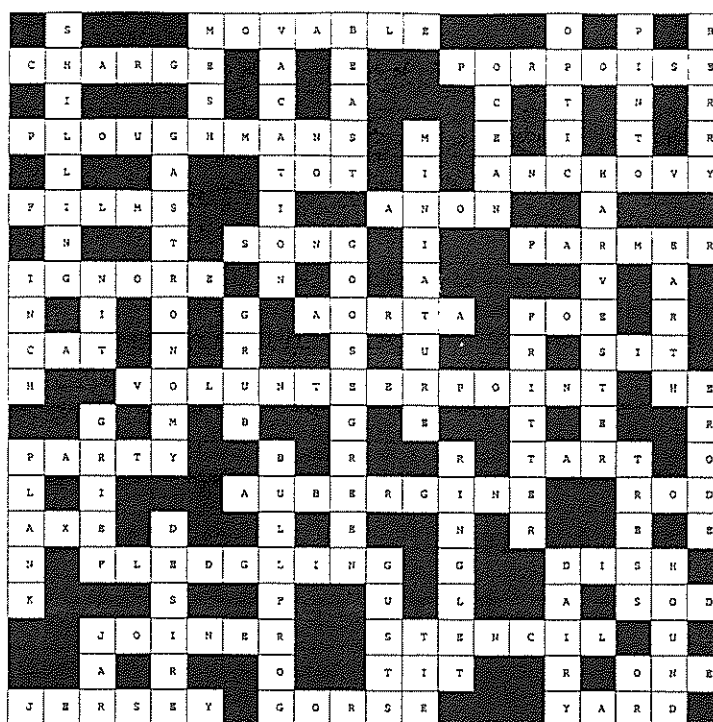
QUIRKY QUESTIONS

By Derek Clelland

1. There are 5 billion people on earth. If you multiply the amount of fingers on everyone's left hand together i.e. $5 \times 5 = 25 \times 5 = 125$ etc. (thumbs count as fingers for this) what result would you get?
2. What was the highest mountain in the world before Everest was discovered?
3. What five letter word becomes shorter when you add two letters to it?
4. What word is pronounced wrongly by over half of all Cambridge and Oxford graduates ?
5. Which weighs more, a pound of feathers or a pound of gold?
6. If a French plane chartered by Germans flying from Switzerland to Italy crashes on the border of the two countries, where would they bury the survivors?
7. Why did Beethoven not finish the 'Unfinished Symphony'?
8. A farmer had 4 haystacks in one field and twice as many in each of his other two fields. He put all the haystacks together. How many haystacks did he now have?
9. A man was born before his father, killed his mother and married his sister. He was considered normal, how?
10. There are three light switches outside a room whose door is closed. They are connected to three light bulbs inside the room. Each switch can be in the on or off position. You can set your switches but are allowed to enter the room only once. You must determine which switch corresponds to which bulb, how?

Answers in the next Wool Press.

**ANSWERS
TO
LAST MONTH'S
CROSSWORD**





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Editor:

Mrs Charlene Rowland

Telephone:

27355

Fax:

27352

e-mail:

doa.fig@horizon.co.fk

SALE BY TENDER

TRICHINOSIS IN PIGS

By Steve Pointing

WHAT IS FREEZE BRANDING?

&

THE NEW BEEF MAN OR

“WHO THE HELL IS JEREMY CHALLACOMBE

&

**NATIONAL BEEF HERD-
UPDATE AND LONG TERM PLANS**

By Jeremy Challacombe

THE UNITED KINGDOM

FALKLAND ISLANDS TRUST

By Jim McAdam & Paddy Vincent

WOOL – TO ADD OR REDUCE VALUE?

By Robert Hall

SILVOPASTURE - A NEW LAND USE OPTION

By Jim McAdam

TRACTOR REVIEW - MASSEY FERGUSON 4270

By Sean Miller

COOKING LEGUMES

By David Parsons

EDITORIAL

This month seemed to arrive and vanish as quickly as it came! Work seems to be never ending at this time of the year in the Department and I'm sure that you must feel the same on your farm.

We have heard so much about the Millennium, and because of all the hype I feel that it could be a wash out when it finally arrives. We would love to hear from any farmer who has plans for the 1st January 2000, whether it be a party of some kind, a get-together with the neighbours or shearing, let me know as I could do a feature in the Wool Press (with photographs) on how Farmers in the Falkland Islands celebrated 1st January 2000.

Cameron is back off his holidays, full of Ireland and how the grass there was lush and green. Mandy and Aidan are also back in the next two weeks. We also have Malcolm Dawson (funded by the Shackleton Trust) arriving on the 16th November to give expert advice on growing Willow trees. It is not too late to add your name to the list if you are interested in meeting Mr Dawson.

I've finally got rid of all the 1999 Replacement Fencing materials. I would be grateful if you could let me know if you have any fences ready for inspecting.

New Zealander out on a date



THIS MONTHS CONTRIBUTORS

Jeremy Challacombe	Beef officer	Jim McAdam & Paddy Vincent	Consultant and Chairman of the UK Falkland Islands Trust
Robert Hall	Falkland Wool Growers	Sean Miller	Animal Nutritionist
Nigel Knight	Organiser of the West Falkland Ram & Fleece Show	David Parsons	Legume Agronomist
Jim McAdam	Applied Plant Science Div. of the Dept. of Agriculture Northern Ireland.		

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FOR SALE BY TENDER

The National Beef Herd has **17 steers** for sale by tender. These steers are approximately 9 months of age and of mixed background.

Their growth rate to date are outlined below, the current weights ranging from 93kg to 180 kg. The condition of the animals varies from poor to good.

**Tenders should be in a sealed envelope
and forwarded to:**

**Mr Jeremy Challacombe - (TENDER – STEERS)
Department of Agriculture
Airport Road
Stanley**

Interested persons may tender for individual animals, groups of animals or the mob as a whole. The Department reserves the right not to accept the highest or any tenders

Tenders will close on Friday 26 November.

Animals may be inspected by appointment with Jeremy Challacombe on telephone 27354

Successful tenderers will be notified directly after this date and the animals are to be collected within two weeks. They will be delivered to Goose Green for collection unless other arrangements are made.

RED TAG STEERS (Born December 98 (AI) to March 1999, castrated 31/5/99)

Tag No:	WEIGHT AT 28/10/99	Tag No:	WEIGHT AT 28/10/99
2	123.0	8	181.0
13	130.0	19	135.0
28	107.0	30	130.0
32	181.0	37	151.0
45	137.0	46	93.0
52	111.0	53	96.0
54	105.0	60	107.0
62	132.0	67	102.0
72	141.0		

TRICHINOSIS IN PIGS

By Steve Pointing

Some of you may have read of the outbreak of Trichinosis affecting 250 people three hundred miles south of Santiago in Chile in last week's Penguin News.

I have had one or two queries as to whether the disease occurs in pigs here and what is the risk to the human population. There is no record of Trichinosis ever occurring in the Falkland Islands (either in pigs or humans) so the risk of contracting the disease is remote. All the pigs in the Falkland Islands have originated from Great Britain and Great Britain has been free of the disease since 1977.

The disease is caused by infection of porcine muscle with the larvae of a nematode worm *Trichinella spiralis* which causes no clinical effects in the pig but represents a major zoonotic hazard to those consuming under-cooked pork or imperfectly cured products. In major pig producing areas the parasite is screened for at the slaughterhouse but the risk is greater in those areas where pigs are killed for home consumption or on a small scale and not subjected to meat inspection.

Infection in humans is generally acquired by ingestion of raw or improperly cooked meat; poor hygiene after handling raw pork also poses a risk. In humans there is an initial phase when gastrointestinal symptoms predominate, followed by a stage lasting about 2 months in which there is fever, muscle pains, weakness, respiratory symptoms and eventual recovery. There are occasional deaths. Many human cases are asymptomatic.

The disease is relatively easily avoided by taking normal hygiene measures. You should always wash your hands after handling raw pork. Even infected pork can be rendered safe by either storing the meat at -15°C or less for a period of 3 weeks or by making sure that the pork is thoroughly cooked right through to the centre of the joint.

To sum up it is very unlikely that locally produced pork is infected with *Trichinella* but even if this were not the case careful handling, proper storage and thorough cooking would eliminate any risk to the consumer.

FOR SALE

1 Ayrshire x Hereford heifer calf
naturally polled – born 22/10/99

Enquiries to Malcolm Ashworth,
Stanley Dairy Ltd, Beckside Farm.
Telephone/fax: 31011

WHAT IS FREEZE BRANDING?

By Jeremy Challacombe

In many countries of the world, it is compulsory to brand cattle with a registered brand. This brand readily identifies the owner of the animal and is a major factor in managing stock theft.

Many farmers also brand animals with a year mark to identify the year of birth and many also incorporate a number to identify individual animals. Whilst many farmers use numbered cartags, they sometimes tear out and often the origins of the animal are thus lost. Branding provides a permanent method of identification.

Until recently, most branding utilised hot brands that used heat to create a permanent scar on the animal. A number of countries have banned this form of branding on the basis that it causes unnecessary pain and suffering to the animal.

Freeze branding evolved in the horse industry and has gradually become more widely used in the cattle industry.

Essentially, freeze branding destroys the pigment forming cells of the hair follicle resulting in hair growing from the branded area becoming white. (Therefore, it is not really suited to white cattle).

Brands are generally made up from heavy duty brass with metal backing plates to maintain the cold temperature. In order to cool the brands, either dry ice or liquid nitrogen is used (The National Beef Herd obtains nitrogen from Mount Pleasant Airport).

Technique

The animal to be branded is restrained, preferably in a crush or calf cradle.

The area to be branded is clipped closely to remove long hair.

The liquid nitrogen is poured into a metal container inside an insulated box and covered to minimise evaporation when not being used.

The irons are placed in the liquid nitrogen and when the liquid stops "boiling", they are ready to use.

The brand is firmly placed on the clipped area of the animal and held firmly for 15 to 20 seconds (the time depends on where the animal is being branded and is a guide only).

The brands are then re-cooled before being used again.

After about 10 minutes, a raised welt in the shape of the brand will be visible. Hair will fall out over the next few weeks and in about six weeks new white hair will have grown back on the animal and be clearly visible.

Over the next few weeks, all the cows in the National Beef Herd will be branded and all new calves will be branded prior to weaning.

If farmers wish to brand their animals, we have numbered brands that may be borrowed, and have some letters. We can also organise to get brands made up.

If any farmers wish to find out more about branding, or wish assistance with branding, please feel free to contact me on 27354, or leave a message with the Department of Agriculture.

**THE UNITED KINGDOM
FALKLAND ISLANDS TRUST**

By Jim McAdam (Consultant)

&

Paddy Vincent (Chairman of the Trustees)

WHAT IS THE TRUST?

A registered UK charity formed in 1981 which is dedicated to assist the Falkland Islands' population by conducting beneficial projects which are not normally funded by Government.

WHAT DOES THE TRUST DO?

Its primary effort is directed towards programmes of research and advice into any aspects of agriculture, forestry or rural development in areas not covered by local government or, through the contacts and skill base of its consultants, to assist local government in the sustainable growth of the agricultural industry in the Falkland Islands.

WHAT ELSE DOES THE TRUST DO?

On a lesser scale, the Trust also assists the population in the Falkland Islands with projects as and when they arise.

Trustees are also responsible for the Shackleton Scholarship fund.

TRUSTEE MEMBERS ARE:

In the United Kingdom

Lord Strathcona (President)
Paddy Vincent (Chairman)
Nigel Gribbon (Vice Chairman)
David Ainslie (Hon. Secretary)
John Dodwell
Sir Rex Hunt
Peter Johnson
David Tatham

In the Falkland Islands

Tim Miller
Robin Lee

Consultants:

Jim McAdam, Queens University Belfast &
Department of Agriculture for N. Ireland.
David Stickland, Organic Farming Specialist.

HOW IS THE TRUST FUNDED?

- A charity – Funds come from persons (mostly in UK) who wished to donate money to support the people of the Falkland Islands.
- Past and ongoing support from the Falkland Islands Development Corporation, Department of Agriculture, Standard Chartered Bank and The Dulverton Trust.
- The Trust welcomes sponsorship for specific projects.

WHAT TYPE OF PROJECTS?

The Trust has four main ongoing project areas where it has made important progress. Projects encourage an organic concept of production.

TREE PLANTING

- There is a need to shelter stock, crops and gardens and to landscape buildings.
- Trust research programme on tree establishment and species selection.
- From this, Falkland Islands Government has commenced its own shelterbelt development programme.

TO ALL FALKLAND FARMERS WEST FALKLAND RAM & FLEECE SHOW

The thirteenth West Falkland Ram & Fleece Show will be held this year on Wednesday 29th December 1999, in Fox Bay Village.

This is to remind farms before the start of shearing to save rams and fleeces for the following classes:

CLASS 1	FULL WOOLED RAM HOGGET
CLASS 2	FULL WOOLED SHEARLING RAM
CLASS 3	FULL WOOLED MATURE RAM
CLASS 4	HOGGET FLEECE
CLASS 5	ANY FINE WOOL FLEECE OTHER THAN HOGGET
CLASS 6	ANY 'B' WETHER TYPE FLEECE

This will be the last opportunity this century to win a prize at "The Ram Show" so make sure you don't miss out.

We will keep you all up to date on details of prizes and sponsors as the "Event" approaches. N.A. Knight, Organiser.

WOOL – TO ADD OR REDUCE VALUE?

By Robert H B Hall

To add or reduce value. That is the question?

Shearing and therefore wool preparation have already begun on a number of farms. In the current climate of low commodity and wool prices it might be tempting to skimp on the real time and effort put into fleece preparation and classing. Such action however could have serious implications on customer appreciation of Falkland wool and far from adding value to the clip is likely to reduce values, (eg. in extreme cases of claims or having to replace wool). Dark coloured fibres remain a priority issue within the wool textile industry and account for much of the price differential between different origins of wool. The well prepared Australian merino clips, which turn in readings of '0-5 bcf/100 grams of tops', remain the industry yardstick against which the Falklands should continue to compete, hard though it is when prices are so unattractive. Best advice is for the Falklands to at least maintain and preferably carry on improving our dark coloured fibre readings.

The answer is obvious: continue to add value.

WILD ISLAND CATTLE ARE DENIED A LIFELINE

Source: The Daily Telegraph 21/10/99

A herd of cattle on a uninhabited Scottish island has been rejected by a conservation group despite being listed internationally as Britain's newest and rarest breed, writes David Brown.

The Rare Breeds Survival Trust has refused to accept the 20 cattle on the Isle of Swona, four miles off Orkney, as a true rare breed worthy of special protection.

The cattle have lived wild since being left behind by the last of seven farmers who abandoned the harsh conditions 25 years ago. They have developed their own breeding pattern to become only the second truly feral cattle herd in Britain – a claim which earned them the first new entry since last century in the World Dictionary of Livestock Breeds. The other feral herd is the Wild White Cattle at Chillingham, Northumberland, which pre-dates the Romans.

The Swona cattle – a cross between Aberdeen Agnus and Shorthorns – are nearly eight times fewer in number than breeds on the trust's "critical" list.

The trust, which has the Prince of Wales as its patron, said yesterday: "One of our main rules is that a breed has been in existence for at least 75 years. We see the Swona cattle as hybrids".

But Stephen Hall, professor of animal science at De Montford University in Lincoln, said: "There are fewer feral cattle

SILVOPASTURE – A NEW LAND USE OPTION

By Jim McAdam

In silvopastoral systems, grazing stock and trees are combined on the same land base. Research by Applied Plant Science Division of the Department of Northern Ireland (DANI) and Queen's University, Belfast, has shown such a system, where sheep graze managed grassland between wide-spread, protected broadleaved trees, to be a viable land use option delivering significant output, welfare and environmental benefits.

On their Agroforestry Unit at Loughgall, Co. Armagh, protected ash have been planted at 400 trees/ha in 1989 into managed ryegrass pasture (160 kg N/ha) and grazed with sheep from March to November. The system is being compared with agricultural and woodland controls.

It has been found that:

Trees can be successfully grown in an intensively managed ryegrass pasture in combination with sheep. In the silvopasture, trees now average 8.3m tall (9m in woodland) and show good form if carefully pruned.

Swards can be managed as easily in silvopasture as in open grassland and yields have not been reduced by the trees. Leaf phenology of ash (late in lead, early drop of edible leaves) complements pasture growth.

Sheep output and individual animal performance are not reduced by 10 year old trees.

Welfare – Sheep spend more time in the shade and shelter of trees than in the open in bright, sunny and wet weather.

Biodiversity is greater in silvopasture than the other systems. Some diversity in grassland *flora* is occurring near the base of the trees; there are more *carabid beetle*, *spider*, *bird* (particularly in winter) and *young earthworm* species in silvopasture than in agricultural or woodland controls.

Economic predictions for the system are favourable. The current downturn in meat product prices and increased interest in agrienvironment support payments towards enhanced biodiversity are likely to enhance the attractiveness of silvopasture.

The site in part of a UK national network of trials and a comprehensive review of the **sustainability** of the system has proved favourable.

Farmer attitudes are positive – they see silvopasture as a highly flexible land use option delivering environmental benefits.

On this basis, Greenmount College has taken demonstration systems onto a network of commercial farms and then to the wider farming public.

The DANI unit at Loughgall offers a modern and well equipped farming and scientific resource for collaborative research, particularly into the more fundamental environmental issues arising from what is proving a viable future land use option.

While this system may not have direct application in the Falkland Islands at the minute, it could be seen as part of a transition from open pasture/camp to a shelterbelt. Once the wide spaced tree belt has established well in the lee of a shelterbelt, animals could be gradually introduced to graze between the trees and benefit from the shelter provided. The close links between the Department of Agriculture in the Falkland Islands and Queens University, Belfast, where this innovative work is being carried out will ensure that the Falkland Islands will be kept abreast of the latest development with the system. Expert advice on introduction of silvopastoral systems will be provided.



TRACTOR REVIEW – MASSEY FERGUSON 4270

By Sean Miller

In March this year, both the Department of Agriculture and Falkland Landholdings took delivery of new tractors. Both tractors are Massey Ferguson 4270. The Department's tractor was purchased as a component of the Pasture Improvement Programme (PIP) and will ultimately be a resource for wider use under that programme. Now that FLH's Fergie has now done about 230 hours and PIP has 400 hours on the clock, here is a review of their performance so far.



Operating

Comfort is king when you climb aboard. Compared to older tractors these new models have made great leaps forward for operator comfort and safety. Seating is fully adjustable and well suspended, and the cabin is effectively sound-proofed. All-round visibility is excellent, and much use has been made of flat and curved glass panels to remove the traditional blind spots in front of the footwells and the rear corners of the cabin.

All controls are easily reached during normal operation. Toggle switches for the 4WD and diff locks are 'finger-tip' controls and allow for quick reaction if necessary. Both tractors are fitted with the 12x12 gearbox option; 12 forward speeds and 12 reverse. These are split in 3 ranges (low, mid and high), and accessed via a floor mounted gear stick similar to what you would find in most trucks. Forward and reverse are selected using a shuttle lever mounted beside the steering wheel. For loader operation, this shuttle option (the ability to select forward and reverse in one quick movement) is well worth considering.

The tractor is well equipped with lights. The headlights are clear and strong providing good coverage. Similarly, four cabin mounted spotlights provide clear illumination of both the front and rear working area enabling night work to proceed around the clock.

Given the large area of glass in the cabin, air conditioning is worth serious consideration. The cabin is designed to minimise dust entry. However, heat builds up rapidly in the closed cabin and can be excessive (30°C+) on any sunny day (even when its 5°C outside).

3-Point-Linkage

The 3PL system on the Fergie provided some initial teething troubles. An error in ordering meant that rather than arriving with a quick hitch 3PL set-up and an hydraulic pick-up tow hitch, we have lower arms with fixed balls and a fixed tow hitch.



An external lever on the rear mudguard lets the operator to lower and raise the 3PL whilst outside the cabin. This helps fine adjustment of the height of the linkage when coupling implements, and saves repeated clambering in and out of the cabin during hooking-up.

If you are thinking about a new tractor, seriously consider a quick-hitch system as implements can be connected from the driver's seat.

PTO Operation

We've put about 250 hours of PTO time on the 90 inch rotavator during the last month or so, and the tractor handles the work easily. PTO engagement is smooth. The convenience of a digital readout of PTO speed makes monitoring the implement's work rate very simple, and precise adjustments can be made quickly.

We've also clocked 20+ hours using the 2 metre-wide slasher on what little diddle-dee ground we have at Brenton Loch. Tractor performance has been faultless.

Loaders

Both tractors have been fitted with front-end loaders as a factory option. The loader itself is made by ALO (Quicke) in Sweden. Fitting and removal of the loader is a 5 minute job that can be done easily by one person in almost any location. This makes normal paddock work easier by removing the distraction and unsighting caused by the frame.



The loader has interchangeable implements as an option. We opted for both pallet forks and a 2.1 metre-wide bucket. Other options include grader blades, ditching and excavating buckets, root crop buckets, manure forks, silage grabbers and cutters, round bale forks, and squeeze grabbers.

Maintenance

Albert McLeod performed the first 50 hour services on both tractors, and Gerard McKay has just completed the 250 hour service on PIP. Both Albert and Kaiser have noted that the tractors are easy enough to service by comparison to FLH's fleet of Fords.

Workshop manuals are very clear, detailed, and easy to read. Troubleshooting charts and diagrams assist in tracking down faults and potential problems. The parts book lists and shows exploded diagrams of all parts. The factory-supplied 'field kit' includes a range of common spare filters, hoses and belts. Since the engines are Perkins designed and built, spares in general are easily obtained.

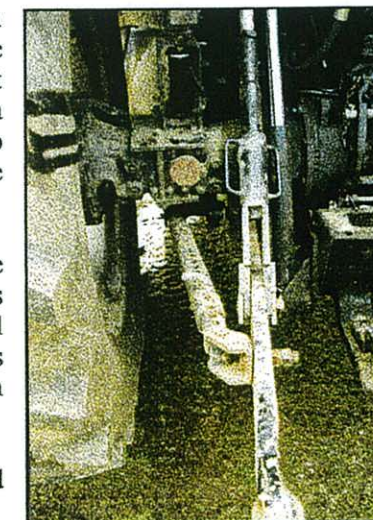
Problems

The stabiliser arms that are fitted to the lower 3PL arms are problematic on both tractors. The bolts securing the stabilisers to the arms come loose daily and require constant attention. Bolts have been broken several times, and we've even lost part of the assembly as a result of bolt breakage. We've discussed this problem with a Massey Ferguson dealer who tells us that it is a common complaint. In an attempt to solve the problem, we've replaced the stabiliser arms on PIP with a chain and bottle screw stabiliser. So far the chains are performing much better than the arms were.

On the road and travelling across camp, build-up of mud on the doors, side windows and rear corner glasses makes viewing through the rear vision mirrors very difficult. This is caused by narrow mudguards over the rear wheels, and until recently, no front mudguards. Both tractors have had retro-fitted front mudguards which make a big difference. We'll probably make some extended rear guards with some conveyor belting.

Also, the bottle screws on the lift arms have a tendency to jump out of their locked position, allowing the lift arms to 'unscrew' themselves.

Loose nuts and bolts have plagued both tractors. A couple of near-disasters have been avoided on Gerald's tractor – the bolts on the rear axle wheel casing came loose and one was almost completely out when it was spotted, some of the



bolts securing the loader frame have worked loose, as have the bolts securing the top tongue of the tow hitch. As with any new vehicle, checking the tightness of nuts and bolts during the wearing-in period is something to keep on top of.

There is a general lack of storage space in the cabin (for lunches, manuals, tools etc.), and the small toolbox fitted to the exterior is only just big enough for a hammer and a few spare tow pins. We've adapted ammo cases to fit the front of the tractors (pins into the front tow hitch) and it improves the situation markedly.

Conclusions

For anyone considering a new tractor purchase, the 4270 represents good value for money in the 100HP+ power range. It's mechanical simplicity and lack of 'computers' keeps maintenance and service within the scope of most farm mechanics. It is comfortable and easy to operate making a day's tractor work an easy chore.

At a Glance	
Model	Massey Ferguson 4270
Manufacturer	AgCo Corporation, Coventry, UK.
Cost	
Without loader	£ 21,995
With loader	£ 25,735
Freight	£ 3,300
Engine	
Type	Perkins 6 cylinder diesel, water cooled, direct injection
Max power output (at 2200 RPM)	86 kW (115 HP)
PTO power (at 1900 RPM)	73 kW (99 HP)
Transmission	12 forward and 12 reverse speeds, with forward and reverse shuttle
3PL capacity	5 tonne lift at linkage ends
Wheels	Single front and rear. Duals can be fitted without voiding warranty
Other	4WD, differential locks on both axles
Loader	ALO manufacture, 2 tonne lifting capacity, interchangeable implements

More Reviews?

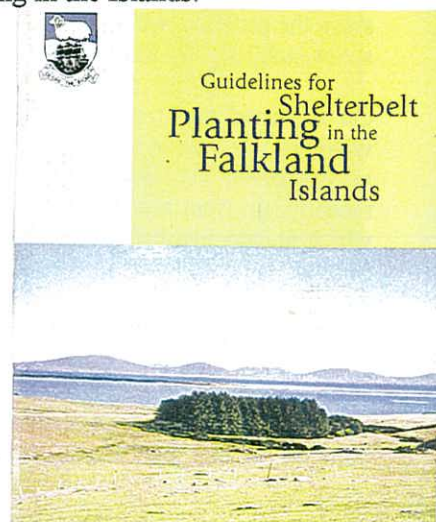
Have you bought a new tractor recently? If so, we'd like to hear from you to put together similar reviews on other tractors (or any other farm equipment for that matter). Give us a call (or send in your facts and figures+photos) and we'll help you put words on paper.

GUIDELINES FOR SHELTERBELT PLANTING IN THE FALKLAND ISLANDS

The United Kingdom Falkland Islands Trust and the Department of Agriculture have produced a booklet on guidelines for tree planting. This was written by Dr Jim McAdam and Dr Alan Low and is based on their long experience of trials, advice and observations on tree planting in the Islands.

Scope of the booklet:

There is a great interest in tree growing in both Stanley and the camp in the Falkland Islands. Both of the authors have in various ways been closely involved in the assessment of the potential for tree growing and more latterly in the promotion of tree planting in the Falkland Islands since the late 1970's. There have been numerous attempts to grow trees before that of course and the results can be seen in various locations. Some pointers to successful tree growing can be gained from these previous efforts and these are outlined in the booklet. However, the booklet is essentially a practical guide, summarising the best available knowledge (based on somewhat limited experience, it must be pointed out!) on the tree planting and shelterbelt establishment. Finally some practical information on further contacts and useful addresses is added, particularly to support the use of products or materials mentioned in the text.



The primary purpose of this booklet is to provide guidance on establishing shelterbelts in the camp. It is therefore targeted particularly towards landowners and farmers. However, it may also assist many other people in the Islands who wish to grow trees, even if only around their homes and in gardens. Many of the basic planting principles will be equally applicable, but the individual attention and careful site protection possible in gardens enable a much wider range of tree species to be grown. This may result in need for more specialist advice on particular aspects of tree growing. It is not the purpose of this booklet to provide such advice, as the range of situations to be covered would be too great. The information required can usually be found in specialist gardening books and manuals and the Department of Agriculture may be able to help with some aspects.

Assessing tree planting possibilities in the Falkland Islands is inevitably dominated by the need to consider the effects of the three major environmental factors wind, rainfall and soil. In relation to tree growth, the windiness of the Falkland Islands climate imposes severe limitations, and its effects are made worse by the low annual rainfall and the nature of the soil (shallow peat over compacted clay) covering much of the land area. Together, these factors seem to rule out the possibility that large scale tree planting for wool production will even be economically worthwhile in the islands. However, there are reasonable grounds for concluding that the use of suitable establishment techniques in combination with appropriate choice of trees species and seed origins make it feasible to create effective shelterbelts for stock and garden protection.

The booklet will be distributed to each farm in the Falkland Islands and additional copies will be on sale from Charlene Rowland at the Department of Agriculture in Stanley. Priced at £5.00 which will go towards the Trusts' costs (as it is a charitable organisation).

THE NEW BEEF MAN OR "WHO THE HELL IS JEREMY CHALLACOMBE"

I believe I have been given a month's grace. I had been warned however, that there was a publication called the "Wool Press" and that a person called Charlene would be on to me after this grace period for regular articles, starting with an introduction to myself. The month's grace has elapsed and I have frantically put together some articles relating to my background and the beef industry.

The worry about the introduction to Jeremy Challacombe was that the Director of Agriculture stated that people were not interested in just a dry old CV, but rather, it should be a salacious tale of the seedier side of my life. With all due respect, I have no intention of completely baring my soul at this point of time. Even though my wife is not with me yet, she still could get to read such a tale and may be less than impressed.

I am a vagabond by nature, having been born in Cornwall (Viv Hobman was expecting a little Cornish pixie in a white smock) and moving to Australia with my parents at a relatively young age. I have been back to England a few times and it seems to get more crowded every time I visit. My parents were farmers both in England and Australia. We had a dairy and I spent the first 25 years of my life milking cows. That probably is what gave me an interest and a liking for beef cattle. I went to Hawkesbury Agricultural College in Australia and only just graduated. The social life, beer and rugby was great though! I worked for a while with the Department of Agriculture, became disillusioned with the bureaucracy and worked on properties and in abattoirs before going back to university to study for a degree in Natural Resource Management. Again, I enjoyed life at university to the fullest and also graduated. The reason for studying Natural Resource Management was that at the time, I felt that we had to move very quickly towards different agricultural management approaches. The whole key to successful agriculture is contained in the term *sustainability*. We were rapidly reaching a stage where we were depleting our natural

Cooking Legumes

David Parsons

I try to cook legumes fairly often, not just so that I can claim to work seven days a week. They taste great and they're good for you as well. A lot of peoples' legume diet doesn't get past baked beans, or maybe a bag of frozen peas. That's okay, however there are lots of other edible legumes, or "pulses", that can make a nice meal, such as chickpeas, lentils, lupins, and many types of beans.

Health Benefits

- Because legumes are able to "fix" nitrogen from the air, they are high in protein, (like milk, eggs and meat are).
 - High in a number of important minerals and vitamins.
 - High in vitamin B folate, especially important for pregnant women.
 - Contain unsaturated fatty acids that lower blood cholesterol.
 - High in complex carbohydrates - good for diabetics.
 - High in fibre.
 - High in phytoestrogens, linked to cancer prevention.
- All in all a nice little nutritional package!

The Flatulence Factor - Beans beans are good for the heart.....

There's no denying the fact that pulses can have an unpleasant effect on the digestive system, particularly for those who are unaccustomed to eating them. This is caused by complex sugars that are not digested by humans, but by bacteria in the stomach, resulting in gas, but also good bowel health.

To reduce the wind to below gale force, the following points are suggested:

- Choose pulses that cause the least problems such as lentils, peas and chickpeas. Others such as lima, haricot and kidney beans have a more intense effect (e.g. chili con carne).
- Throw out the soaking water (This is probably the most important).
- Introduce pulses into your diet slowly to let your body adjust.

Cooking Tips

Rinsing

- It's best to give pulses a rinse to remove dirt, stones and misshapen seeds.

THE NATIONAL BEEF HERD – UPDATE AND LONG TERM PLANS

By Jeremy Challacombe

Over the past couple of weeks I have been getting to know the herd and sorting out a work programme for the forthcoming year.

Whilst the condition of the cows is nothing flash, the offspring resulting from the last AI programme is promising. All the calves were inspected and weighed on the 28th of October and the heifers and steers have averaged about 0.45kg per day over the past month. The bulls are more spectacular, averaging 0.98kg per day. (To be fair though, the bulls have been receiving a mixture of fishmeal and molasses with hay). The other animals have just been on camp with no supplements.

I am hoping to get rid of the steers as soon as possible (see advertisement for tenders for steers elsewhere in this issue of the Wool Press). I am also interested in getting rid of the cull females fairly soon. Most of the bulls have been taken and at this time, there are only two or three to go.

Based on pregnancy testing earlier in the year, we are expecting about 70 calves and the cows have been drafted into mobs ready for calving commencing in December.

We will be freeze branding all of our stock in the near future to aid in identification. Currently, we use different coloured and numbered eartags to identify animals and the year they are born. Unfortunately, tags sometimes tear out and are difficult to read in the paddock. Hopefully, freeze brands will be easier to read and are permanent.

I place great importance on maintenance of accurate stock records and foolproof identification is a key to good record maintenance. We will be tagging all calves at birth and identifying the sire and dam. These records will then be used as the basis for selection, as certain traits such as fertility and weight gain will become apparent over a period of time.

I am hoping to get rid of the poorer females over time. This will depend on the quality of replacement heifers. The aim will be to have a herd of cows achieving as close to 100% calving on an annual basis with calves showing adequate weight gain during their first 6 months of life.

One of the major hurdles in achieving this goal is the lack of feed. In order for animals to display their genetic potential, they should have adequate feed throughout the year as many previous articles in the Wool Press have indicated.

Our aim is to establish an adequate area of both cereal crops for grazing, and fodder crops for autumn and winter grazing.

Looking at the condition of cows and calves, there does not appear to be any benefit in delaying weaning until after winter. In fact, it is likely that earlier weaning will benefit both cows and calves. We are therefore hoping to wean calves at about 5 to 6 months of age in May next year. The proposal is to hold and hand feed the calves for a short period in the yards and then put them onto forage crops over the winter. Hopefully, this will minimise any post weaning stress and allow them to hold and improve their weight over winter and ready to grow on new pastures the following spring.

It is important that cows also are in good condition prior to joining and prior to calving. The amount of forage will hopefully be enough to allow them to hold or improve condition during their next pregnancy.

Soaking

- The larger the seed, the more soaking time in cold water is needed.
- Lentils are the "fast food" of the pulses and need no soaking.
- For chickpeas and beans, overnight soaking can actually be the hours in the day while you are out and about.
- For quick soaking add 3 times the amount of water to pulse, bring to the boil, remove from heat and sit for an hour.
- Don't forget to throw out the soaking water (you lose some of the nutrients, but that's the price you pay to go out in public).

Cooking

- Don't add salt or baking soda to the cooking water, as cooking takes longer.
- Bring pulses to the boil in plain water for a few minutes, then reduce to simmer and add other ingredients.
- Undercooked pulses are hard on the stomach, and overcooked pulses are mushy. It is cooked just right if you can crush the pulse easily by pressing it against the roof of your mouth with your tongue.

Here's a delicious recipe from the book "Passion for Pulses" compiled by Nancy Longnecker:

Libyan Lamb Stew

1 ½ cups mixed dried pulses	1 bunch parsley chopped
1 large onion sliced	1 tsp turmeric
1 tablespoon (tbsp) olive oil	2 large carrots coarsely diced
500g lamb, diced and tossed in seasoned flour	salt and pepper (optional)
1 tbsp chili powder	½ tsp sugar (optional)
2 cloves garlic crushed	6 medium tomatoes chopped or 1 large tin
½ teaspoon (tsp) curry powder	2 cups water
1 tsp mixed herbs	1 small bunch of mint, finely chopped
	lemon juice

- Soak dried pulses (all together) overnight. Drain. Put into a large pot and cover with fresh water. Bring to the boil and cook for 20 minutes. Drain.
- In a large pot, sauté onion in olive oil. Add meat and brown it.
- Add chili powder; cook for a few minutes.
- Add the rest of the ingredients except mint.
- Simmer on low for 4 hours.
- Add mint half an hour before serving.
- Sprinkle with lemon juice just before serving.

The cattle work plan then will be as follows:

December/January	Calving
February/March	Join cows (AI, followed by bull to "mop up") Weigh calves, castrate obvious cull males
May	Wean and weigh calves, preliminary bull selection
June	Pregnancy test all cows Draft off empty cows
August	Weigh calves
November	Sort cows out into calving mobs Weigh calves

Whilst it may seem somewhat premature to set eventual goals for beef cattle, I feel it is important that these be identified at this point in time and our actual performance monitored against such goals. These goals should be similar to those generally utilised by an efficient beef industry throughout the world.

- Weaning (6 month) weight 135 to 150 kg
- Aim to turn off steers of 450kg under 3 years of age
- Aim to join heifers at 2 to 2.5 years of age
- Aim to join animals with a body weight of 300 kg
- Aim to have cows calving annually with a herd calving percentage of 90%.

Given the current lack of feed, it is unlikely that the above goals can be achieved at the present time. However, with adequate feed, they are quite realistic and if there is to be a sustainable beef industry, then we have to achieve these parameters. It is unlikely that a beef enterprise will be viable on world prices unless such goals are met. In conjunction with this, the international market place dictates specifications for beef and if the producer cannot meet those specifications, they will be penalised financially.

Our aim therefore at Brenton Loch/Saladero is to demonstrate that these goals are achievable in a sustainable manner, extend information to farmers so they may also achieve such goals, and to produce animals (Bulls initially, but also improved females) for distribution to the farmers of the Falkland Islands.

When we are talking about beef cattle, we are really talking about the production of kg of meat over a fixed time period. It stands to reason then that we want those animals that put on the most weight over the shortest period of time. Weight gain is fairly highly heritable and if a big quick growing bull joins with a big quick growing cow, chances are that their offspring will be as good or better. Therefore, a great emphasis of selection will be based on weight gain. Selection will also be based on type and condition and also temperament. (None of us want to work with stirry animals).

Given a good set of records, it is relatively easy to identify those females with a good breeding history and join them to males (probably using AI) showing those traits that we want. We will then closely monitor the offspring and select only those animals that show an improvement over the existing herd.

If any farmers wish to find out more about the National Beef Herd, or wish to get involved in any aspects of the work programme, please feel free to contact me at any time.

SHEEP SELECTION AND SIRE REFERENCE SCHEMES

By Robert H B Hall

Sheep breeders recognise that there is much variation amongst the production traits of their sheep, with fleeces noticeably varying in fibre diameter and weight from one sheep to another. Importantly these characteristics are both measurable and inheritable, which allows selection and breeding from the best animals.

It is relatively easy to compare animals within a single flock environment, as for wool production, fleeces are merely weighed and mid-side samples taken. Identifying the best animals grown in different environments (camps, farms, islands, countries) however requires a mechanism to link the different environments for comparison. The link can be provided by reference sires.

"The basic requirement for comparing animals in different flocks or herds is that a number of genetically-related animals have records in the different units. One way in which this can be done is through the use of a sire-referencing scheme. Several sires (called reference sires) are mated to random groups of females in several flocks or herds, usually by artificial insemination. The records of an animal in one unit can be compared with those of another in a different unit by deviating each animal's records from the average of the reference sire in the flock to which it belongs. For example, if the progeny of reference sire **R** average 3.2kg in flock **A** and 4.0 kg in flock **B**, then sire **I** with progeny average in flock **A** of 3.5 kg ($3.5 - 3.2 = +0.3$) can be compared with sire **2** with progeny average of 3.8 kg in flock **B** ($3.8 - 4.0 = -0.2$)." Rae, A.L. (1985) Sire and Breed Selection.

Whilst AI has complications and costs, a Sire Reference scheme in the Falkland Islands could be used to identify superior animal genetics. Having identified the superior Falkland Island animals within an age group each year, there could be several potential benefits and developments, all speeding the rate of genetic gain:

- 1) Animals could be traded with an inter farm ranking thus allowing participating farmers to buy rams that are known to be better than their own.
- 2) In time the Reference Sires used, could be the very best rams within the scheme, thus spreading highest quality genetics amongst farms.
- 3) Animals could be objectively screened into the nucleus flock of a Group Breeding Scheme (GBS). A Sire Reference scheme is perhaps an alternative to a centralised and closed GBS nucleus flock however if a Sire Reference scheme and its screening effect were ongoing, i.e. the GBS nucleus flock is open to continually receive animals with outstanding performances, then its rate of progress can be increased.

In short, the identification of superior animals in the Falkland Islands for any species and production enterprise (fibre or meat) could be greatly assisted by the use of Sire Reference scheme techniques.

LESSONS FROM GEESE

FACT 1: As each goose flaps its wings it creates an uplift for the birds that follow. By flying in a "V" formation, the whole flock adds 71% greater flying range than if each bird flew alone.

LESSON: People who share a common direction and sense of togetherness can get where they are going quicker and easier because they are travelling on the thrust of one another.

FACT 2: When a goose falls out of formation, it suddenly feels the drag and resistance of flying alone. It quickly moves back into formation to take advantage of the lifting power of the bird immediately in front.

LESSON: If we have as much sense as a goose we stay in formation with those headed where we want to go. We are willing to accept their help and give out help to others.

FACT 3: When the lead goose tires, it rotates back into the formation and another goose flies to the point position.

LESSON: It pays to take turns doing the hard tasks and sharing leadership. As with geese, people are interdependent on each other's skills, capabilities and unique arrangements of gifts, talents or resources.

FACT 4: These geese flying in formation honk to encourage those in front to keep up their speed.

LESSON: We need to make sure our honking is encouraging. In groups where there is encouragement, the production is much greater. The power of encouragement (to stand by one's heart or core values and encourage the same in others) is the quality of honking we seek.

FACT 5: When a goose gets sick, wounded, or shot down, two geese drop out of formation and follow it down to help and protect it. They stay with it until it dies or is able to fly again. They launch out with another formation or catch up with the flock.

LESSON: If we have as much sense as geese, we will stand by each other in difficult times as well as when we are strong. *Why don't Upland Geese follow these rules?*

ANSWERS TO DEREK'S QUIRKY QUESTIONS

1. The answer would be zero, as sooner or later you would come across someone with no fingers on their left hand and any number multiplied by zero is zero.
2. Everest was still the highest.
3. Short.
4. Wrongly.
5. A pound of feathers. Gold is measured in Troy pounds which actually weigh less than the Avoirdupois pounds that feathers would be weighed in.
6. It is not usual to bury survivors of plane crashes until they actually die.
7. Beethoven never wrote the 'Unfinished Symphony' it was Schubert.
8. One haystack.
9. He was born in the presence of his father, his mother died in childbirth and when he was older he became a priest and married his sister to her husband.
10. If you put switches A and B on leaving switch C off for a couple of minutes then put switch B off and walk into the room. The bulb that is on corresponds to switch A. The bulb that is off but is warm corresponds to switch B. The bulb that is off and cold corresponds to switch C.



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Editor:
Mrs Charlene Rowland

Telephone:
27355

Fax:
27352

e-mail:
doa.fig@horizon.co.fk

**THE THIRTEENTH WEST FALKLAND RAM &
FLEECE SHOW 1999**

By N. Knight

ARE YOUR CATTLE ITCHY? OURS ARE!

By Jeremy Challacombe

CATTLE FREEMARTINS

&

DRUG RESIDUES AND WITH-HOLDING PERIODS

By Cameron Bell

**IT'S 'FRESHCO' – STANLEY
(NOT WETHERFIELD FOR YOU CORRIE FANS)**

&

BUSINESS AND EMPLOYMENT EXHIBITION

a report by Mandy McLeod

THE STALLION – “PUERTO PACIFICO”

By Charlene Rowland

MEDIUM RANGE WEATHER FORECASTS

By Sean Miller

FALKLAND WOOL GROWERS LTD

Itinerary by Robert Hall

REMINDER FOR OFFAL INSPECTIONS

By Diana Berntsen

EDITORIAL

Mr Malcolm Dawson (The Willow man) has departed the Falklands after planting approximately 7,500 Willow trees in various locations. As I did not get a chance to speak to Malcolm before he flew back to Ireland, he has offered to send me a report on his Willow tree planting in the Falkland Islands.

Mandy McLeod, Aidan Kerr, and Marie Summers have all returned home from well earned holidays and Diana Roberts from Sydney University where she has another 2 years studying to become a qualified Veterinary Surgeon.

Sean Miller and David Parsons have gone on their long journeys to Australia for their holidays. Sean will be back around the beginning to middle of January and David is expected to arrive back in the first week of January 2000. Lilian has also gone on a holiday to Chile and New Zealand and will be back in the office shortly before Christmas.

Sarah Forster has finally made it to her 18'th birthday and has also got engaged to Wayne Clausen. The Department of Agriculture would like to wish Sarah a very happy birthday and congratulations to her and Wayne.

THE DEPARTMENT OF AGRICULTURE

WOULD LIKE TO WISH ALL
FARMERS AND READERS
A VERY MERRY CHRISTMAS

&

HAPPY NEW YEAR

FROM THE DIRECTOR AND STAFF

THIS MONTHS CONTRIBUTORS

Jeremy Challacombe	Beef officer	Mandy McLeod	Farm Management & Training Officer
Robert Hall	Falkland Wool Growers	Sean Miller	Animal Nutritionist
Nigel Knight	Organiser of the West Falkland Ram & Fleecce Show	Cameron Bell	Veterinary Officer

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THE ARTICLES PRINTED IN THE WOOL PRESS DO NOT NECESSARILY REPRESENT THE VIEWS OF THE DEPARTMENT OF AGRICULTURE.

ARE YOUR CATTLE ITCHY? OURS ARE!

By Jeremy Challacombe

A discussion on cattle lice

When I first saw the animals in the National Beef Herd cattle, apart from being a very motley lot, many of them appeared to be losing large amounts of hair. On first inspection, it looked like an infestation of mange, but nothing showed up under the microscope.

The reason became clear during freeze branding. In order to freeze brand the heifers, hair was clipped off the rump area. Many of those animals showed a scurfy appearance next to the skin, and many had little dark coloured creatures moving about (and obviously causing some discomfort to the animals). It became obvious then, that many of the animals were lousy, especially the poorer animals.

What are lice?

Lice are small flat-bodied insects, generally parasitic and not able to survive off the host for more than a few days.

Lice are extremely prolific breeders and move readily throughout the herd infesting most animals, and as such, are probably responsible for the hair loss and motley appearance.

There are two main types of lice that affect cattle; sucking lice and biting lice. Generally, the sucking lice cause the most problems and can result in heavily infected animals becoming quite anaemic, especially in those animals that are in poor condition.

Lice are most commonly seen in the spring and are much more noticeable in cattle in poor condition.

According to Whitely in his report entitled "**Veterinary Research and Disease Control in the Falkland Islands 1976 - 1983**", the suckling louse of cattle *Linognathus vituli* is the species that is common in the Falkland Islands and was a problem that should be routinely treated in spring and autumn.

The louse life cycle

The eggs (or nits) are glued singly to the hairs of the host and hatch after about two weeks. Nymphs (or immature lice) hatch and mature into adults over about 3 weeks. Adults live for about two weeks, with females laying one egg per day.

The entire life cycle is spent on the host with animals not able to survive for more than a couple of days off the host.

Economic impact of Lice

It is difficult to put an exact figure on what lice cost a cattle industry. It probably does not have a major economic impact on the Falkland Islands beef industry at this point in time. However, as the industry expands and consumer demands become more stringent it is likely to have an increasing impact if not dealt with.

In major beef producing countries, lice infestations have been associated with reduced weight gain and general unthriftiness, with infestations of 10 or more lice per square inch being solely responsible for significantly reducing weight gains.

The appearance of lice infested animals also may result in a reduced market price for animals.

ARE YOUR CATTLE TICKS OR LICE A PROBLEM?

Economic losses in relation to hide damage can also be quite significant, with skins being damaged from rubbing to such an extent that they are no longer suitable for processing

Treatment and control Lice can be controlled by application of an appropriate insecticide. This is generally carried out by spraying or dipping. More recently, backline pour-on applications have proved successful and easy to administer. This entails squirting an amount of chemical along the back of the animal from the neck to the top of the tail. It is important to treat ALL animals as one untreated infected animal can quickly infect the rest of the herd. This is a major constraint in the Falkland Islands where appropriate cattle handling facilities are scarce.

If possible, infected animals should be kept separate from clean animals, and any new animals coming onto the farm should be inspected and treated if it is not known whether they are lousy prior to coming into contact with the rest of the herd.

Animals should also be kept in as good a condition as possible. The heaviest lice infestations appear to be on those animals in poor condition with animals in good condition not as badly affected.

In order to treat the National Beef Herd, we have obtained a "pour-on" propriety formulation from Chile and applied it to all animals. We will be inspecting the animals and carrying out a repeat application if necessary to ensure any recent hatchings are also killed.

The cost is not cheap (it works out at about 55p per adult animal for a single treatment) plus the labour cost entailed in gathering and treating.

Eradication A few years ago, ked were a problem in sheep. Now the country is free of ked and sheep do not have to be dipped. This has resulted in significant cost savings to the industry.

If we are serious about a cattle industry in the Falkland Islands, it would make sense to investigate the possibility of doing the same with lice. It would be a relatively simple task to eliminate them from the country completely by embarking on an annual programme of treating ALL cattle in the Falklands.

Such a programme would need to operate over a few years and involve compulsory treatment of all animals (and capture and treatment or shooting of all wild cattle). Given the experience with elimination of ked and the fact that there are only a relatively small number of cattle in the country, it is something that should be considered.

The long-term benefits to a future cattle industry could be quite significant. With eradication, there would be no need to use any chemicals for external parasite control. This would assist in promoting a "clean, green" organically grown product.

We would be interested in feedback from the industry regarding a national lice eradication programme. If farmers wish to find out more about cattle lice and their control, including obtaining "pour-on" treatment, please contact Jeremy Challacombe at Goose Green on 27354, or through the Agriculture Department office in Stanley.

AN UPHILL BATTLE – Part one
ONCE MAN'S LIFETIME COMMITMENT
TO HIGH COUNTRY FARMING.

SOURCE: Wool Growers Spring 1999

Everyone in Omarama knows that Rod Patterson is unstoppable. When they're trying to make something happen in their community and they run up against the barriers of bureaucracy, they call up Longslip Station. Patterson's known for not giving up in the face of apparently hopeless challenges.

The little hurdles the bureaucrats set are nothing, however, to the objectives this high country man sets himself.

For the last 20 years he has spent hundreds of thousands of dollars and most of his available time on two formidable and far-reaching research projects. These are aimed at improving the viability of his own 15,000 ha Longslip Station, nestled in the Landis Pass high country, and that of other high country properties.

In the first project, Patterson hopes to breed Merino sheep resistant to footrot. At the same time he has been scouring the world for legume species that would enhance the sustainability of his property.

The projects arose out of his conviction that these were the two most economically significant issues facing his fine wool operation, and his frustration that little progress was being made through public good research programs.

The footrot work began in earnest in 1985 after unusual climate conditions brought on a massive outbreak on his station. He watched as his rams became debilitated by the infection around tupping, when it has maximum impact on their performance and made intervention impractical. Just months later, in the spring, many of his ewes and young lambs were also crippled by a second serious outbreak.

At the time Patterson was completing a Masters thesis at what is now Lincoln University. As his study was of the soils and agronomy of the Longslip property, he decided to use the scientific approach to address his footrot problems.

He set up a progeny test program to screen his rams and identify animals that appeared to have good natural resistance to footrot.

In the first year he single-sire mated 56 rams to 70 ewes each. Progeny were challenged to footrot through intensive stocking on irrigated pasture near Duntroon in the lower Waitaki Valley. The condition of their hooves was scored regularly, using methods developed by Prof. John Egerton and Herman Raadsma at the Sydney University Veterinary School.

The initial progeny test results convinced Patterson to study further the bloodlines of the most promising sires, in order to fast-track the program. First indications were that seven rams, all with common recent ancestry, appeared to produce lambs with above average resistance. Another strong family line emerged later in the study.

The more promising ram family groups all traced back to the high-profile Merryville stud in Australia.

At great cost, Patterson purchased stud rams and ewes with similar bloodlines from New Zealand daughter studs for the test program. Three rams were also imported from Australia.

But results of the breeding program were variable, and somewhat disappointing overall. In 1992, to cover his bases, he purchased more than 1000 breeding ewes from various leading properties throughout Central Otago – all supposedly footrot-free.

The aim was to mate these to rams identified as resistant in the progeny test program. Before this was done the ewes were taken to Duntroon and challenged under those conditions. Eighteen months later, only 15 of these 1000 ewes had not exhibited signs of footrot. Patterson frankly admits that the results were disheartening, but they didn't deter him. He continued progeny testing, albeit on a more limited scale.

By this time, DNA and gene marker technology was becoming more accessible. Researchers Jon Hickford, Rachel Forrest and Sandy Slow at Lincoln University became involved in a collaborative venture to DNA-type rams in an attempt to identify markers that correlated with footrot susceptibility and resistance.

This program is still a 'work in progress', but is it likely that a practical blood test will be available within about a year. This will allow breeders to identify footrot-resistant rams for around \$25 a sample.

Patterson is the first to admit that this won't be the magic silver bullet that Merino breeders dream of – it's never that simple. Two distinct species of bacteria need to be present to initiate the footrot disease, and up to 10 distinct strains of the bacteria are found throughout New Zealand, so a resistant breeding flock has to have diverse immunity groupings.

Patterson believes that the way things are developing in Europe, footrot could easily become a significant welfare issue with consumers, and the days of using drugs, chemicals and vaccines as a way of managing the Merino's susceptibility to footrot may be nearly over.

Next month's edition will be Rod Patterson 'Hunting for Legumes'.

FOR SALE

10 Semen Straws

Comprising of:

4 Merino
6 Polwarth

Offers to John or Stephanie Ferguson
Weddell Island telephone: 42398

FALKLAND WOOL GROWERS LTD

December Itinerary

I am visiting Camp and Stanley during part of December.
My itinerary is currently as follows:

Friday 10th	Arrive Falklands
Saturday 11th	Stanley
Sunday 12th	To Wine Glass Station
Monday 13th	To Wreck Point via Saladero with Dept. of Agriculture
	To Kingsford Valley Farm
Tuesday 14th	FLY to Coast Ridge/Fox Bay
Wednesday 15th	To Sheffield
Thursday 16th	To Peaks
Friday 17th	To West Lagoons
Saturday 18th	To Bold Cove
Sunday 19th	FLY to Stanley
Monday 20th	Meetings in Stanley
Tuesday 21st	To Port Louis Cottage
Wednesday 22nd	Visit farms in Port Louis area
Thursday 23rd	To Stanley
Friday 24th	Stanley
Saturday 25th	Stanley
Sunday 26th	Stanley Races
Monday 27th	Stanley
Tuesday 28th	Depart Falklands
Wednesday 29th	

My thanks to all those who have kindly agreed to have me to stay and pass me 'along the track'.

My hope is to meet as many farmers as is possible either in Camp or Stanley. If people wish to liase and arrange additional meetings that would be very welcome. My apologies to those farmers that I will inevitably not see on this occasion however do telephone me if you wish. If there are any problems with this plan, please contact myself or Diane as soon as possible - Diane will be based in Stanley until Wednesday 22nd.

With Regards **Robert H B Hall**

JOKE OF THE MONTH

Recently a routine police patrol parked outside a local neighbourhood tavern. Late in the evening the officer noticed a man leaving the bar so intoxicated that he could barely walk. The man stumbled around the car park for a few minutes, with the officer quietly observing. After what seemed an eternity and trying his keys on five vehicles, the man managed to find his car which he fell into. He sat there for a few minutes as a number of other patrons left the bar and drove off. Finally he started the car, switched the wipers on and off (it was a fine dry night) flicked the indicators on, then off, tooted the horn and then switched on the lights. He moved the vehicle forward a few inches, reversed a little and then remained stationery for a few more minutes as some more vehicles left.

At last he pulled out of the car park and started to drive down the road. The police officer, having patiently waited all this time, now started up the patrol car, put on the flashing lights, promptly pulled the man over and carried out a breathalyser test. To his amazement the breathalyser indicated no evidence of the man having consumed alcohol at all!!

Dumbfounded, the officer said "I'll have to ask you to accompany me to the police station. This breathalyser equipment must be broken."

"I doubt it," said the man. "Tonight I'm the designated decoy."

CATTLE FREEMARTINS

by Cameron Bell

Freemartins are heifer calves born as a twin to male calves. Freemartins are genetically female, but have poorly developed ovaries and uterus, fail to come into season, and will never produce a calf. The freemartin syndrome has been known since ancient times.

This syndrome results from an exchange of blood between the female and male fetus whilst in the uterus. Although it is uncertain, it is believed to be an arterial exchange of either hormones or cells that induce the developmental changes in the female fetus.

Freemartins are not uncommon, and are generally found in cattle, although they have been recorded in goats, sheep and pigs. In the last two years, I have come across three freemartins in the Falkland Islands. So be suspicious of freemartinism whenever a set of twins comprises of a male and female.

CATTLE A.I.

by Cameron Bell

The time is rapidly approaching for Cattle A.I. Although I have contacted the regular farms, if there are other producers that are thinking of A.I. this season, then please contact myself in Stanley (27355) or Jeremy Chalacombe at Goose Green (27354). We are more than happy to provide advice on selection of animals, facility requirements etc., so feel free to give us a call.

LETTER TO THE EDITOR

I read with interest the article by Jim McAdam and Paddy Vincent in the November 'Wool Press' about the United Kingdom Falkland Islands Trust, and thought I would take a minute to write to the paper to express my gratitude to everyone involved in the Trust, for their time and no doubt expense given to the Falklands Community. The Trust's record of quiet achievement is I know much appreciated by everyone familiar with its work.

Yours sincerely
Stuart Wallace

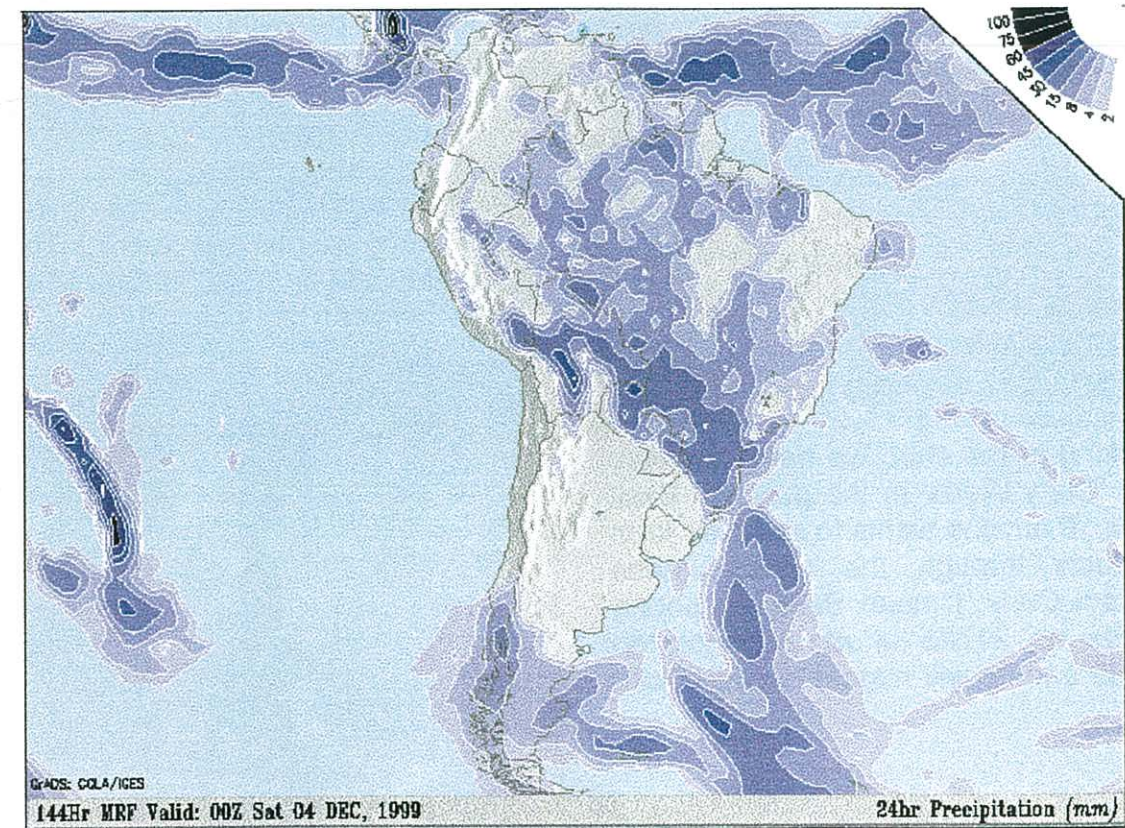
MEDIUM RANGE WEATHER FORECASTS

By Sean Miller

For those with access to the internet, weather forecasts are now readily accessible. A site which I've been using to assist our planting programme at Brenton Loch over the last few weeks is <http://grads.iges.org/pix/sa.fcst.html>

This site provides a variety of weather forecasts including temperature, wind, and the probability of rainfall and its amount.

The following picture is an example of the type of image that you can look at. In this case, this is a rainfall prediction map which I looked up on 28th November and which forecasts rainfall 6 days ahead on the 4th of December.



The scale on the top right corner indicates rainfall in millimetres (to convert to points, multiply by 4).

As you can see from this prediction, the Falklands could receive between 8 and 15 mm of rain over this weekend. Whether or not we do (or have, since this article won't be read until well after the 4th) get this much rain is, of course, subject to many intervening factors.

The accuracy of forecasts decreases the further the forecasters look into the future. In general, 24 hour forecasts are pretty reliable, but there is a great deal of uncertainty in 4, 5 or 6 day forecasts. For that reason they should be used as a guide rather than gospel.

However, as a potential management tool they provide information upon which informed decisions can be made. For example, if you are planning to cut hay, a rain forecast can help pinpoint a window in which you can get the hay cut, baled and stored without getting it wet. Similarly, if shearing is around the corner a rainfall, temperature, and wind prediction for that period can help you prepare for the best and worst.

IT'S 'FRESH CO' - STANLEY (NOT WETHERFIELD FOR YOU CORRIE FANS)

a report by Mandy McLeod

'FRESH CO' is the latest shop to open in Stanley. It is owned by a group of farmers who want to ensure that farm products have an outlet and that the produce sold is well presented.



With the price of wool being so low, some farmers are looking at additional ways of providing farm income. Apart from the provision of meat (beef, lamb, mutton and pork) these alternatives include increased egg and vegetable production, making jams, chutneys and sauces, and providing oven ready poultry, to name a few. The shop welcomes as much variety as possible of Falkland Island produce.

Working in the shop we have our very own 'Curly Watts' in the guise of Basil Faria. If anyone wants to sell their farm products through the shop, please contact Curly, I mean Basil, by phone or fax on 21793 or at the shop on 22439 and he will negotiate prices with you.



The owners of 'FRESH CO' are Ali and Marlene Marsh, Michael and Jeannette Clarke, Terence and Carol Phillips, Ben Berntsen and Violet Clarke and Raymond Evans and Arena Berntsen who have all shared the cost of establishing the shop.

'FRESH CO' is situated on Villiers Street (behind the Speedwell Store) and is open to sell produce on Monday to Friday from 8.30am – noon and 1-5pm. On Saturdays the hours are 9am – noon and 1 – 4pm. These hours are a trial run and will be adjusted if necessary according to demand.

So, if anyone out there has grown too much for their own consumption and it looks like going to waste, or can make something edible that they think will sell in Stanley, don't delay, call Basil today!

TTH STALLION – "PUERTO PACIFICO"

Ron and Fiona Rozee bought a thoroughbred stallion from Punta Arenas, Chile which arrived in the Falkland Islands on the vessel Tamar FI on 9th January 1998.

Puerto Pacifico stand 16 hands and zaino in colour (or a dark bay). His temperament is extremely placid, very easy to handle and well mannered even when running with mares.



Last season Puerto Pacifico covered 14 mares and sired 1 stud foal to Shirley, Ensonce's mother. Watcha, Elaine Turner's thoroughbred mare, is due to foal shortly and hopefully 5 more foals to arrive in December and January.

Ron and Fiona hope to publish Puerto Pacifico's pedigree soon, once they receive his papers. Stud fees are currently at £100.00

If you are interested in putting your mare to this magnificent stud, or need further information, please call Ron and Fiona at Spring Point Farm on telephone/fax 42001.



Whilst Cameron and Jenny were driving along in the country lanes of Ireland they came upon this tractor and trailer. The mind boggles as to how it ended "parked" up in this position. Any 'explanations' or suitable captions will be published in the next Wool Press.

THE BUSINESS AND EMPLOYMENT EXHIBITION

a report by Mandy McLeod

On the last Sunday in November, a 'Business and Employment Exhibition' was held in the Town Hall, Stanley, and ran for 3 days. It opened each afternoon from 2 – 6 pm. It was arranged by FIDC and gave Government Departments and the Private Sector the opportunity to have a 'stand' where they could display their wares or explain their activities and purpose to members of the public. One aspect of the exhibition was to provide awareness to the students from the Community School of career availability and diversity. It is not always obvious how broad the range of careers and professional skills are in a single department or business. There were stands from a wide cross section of Government and the Private Sector including Fisheries, Conservation, Tourism, FIDC, Mineral Resources, DHL, Philatelic Phil Middleton, A & E Knitwear, Cable and Wireless, KTV / KMZ Electronics, several construction firms and fishing companies, and of course, THE DEPARTMENT OF AGRICULTURE. John Birmingham is worthy of thanks for the organisation of the exhibition day to day (and the provision of tea and coffee). My apologies to any departments or businesses that were there but I have failed to mention.

The main man at the Department of Agriculture stand was Derek Clelland who had also done the setting up and preparation on behalf of us all. He had occasional help manning the stand from Charlene, Bob and myself. The stand attracted quite a bit of interest from local people, visitors and the pupils from the school.



The tourism stand was very impressive and it was interesting to see just how much is available in the Islands, not just for visitors, but as refreshing breaks for us 'city dwellers'. Tourism is something that quite a lot of farmers contribute to with the provision of a wide range of accommodation and services to places of interest.



Eddie Chandler had a display of garments made in the Falklands with Falkland Island wool, our main agricultural product. The company, A & E Knitwear, is based at Port Howard. It was good to see some 'Camp' participation at the exhibition.



FARMERS SET FIRE TO WOOL VALUED AT A PENNY A KILO

Source: *Farming in Crisis*

An abstract taken from a news paper dated 8/8/99.

"Quote"

Farmers in the Lake District are burning the wool from their sheep rather than be paid for just 1p per kilo for it.

In the latest crisis facing British farming, "wool prices have tumbled in the face of increased foreign competition, the strong pound, declining markets and changing fashions.

As a result, farmers who keep Herdwick sheep, favoured in the lake District, have been told by the British Wool Marketing Board (BWMB) that they can expect just a token 1p per kilo payment.

"It's heartbreaking," said Eric Taylforth, who runs Millbeck Farm, in Great Langdale, as he prepared to burn some of the fleeces from sheep he pays shearers about 40p an animal to clip. "I thought, we really shouldn't be doing this, but we must be realistic."

Mr Taylforth and several of his neighbours say that the token price being offered makes it pointless to store the wool in sheds that would be needed for over-wintering animals, or keeping feed supplies. Much of last year's Herdwick fleeces are still unsold at the BWMB's Carnforth depot

Mr Taylforth, 45, runs the farm with his wife Susan. They have two sons, Alan and Sean, but he is not optimistic about their future in the business. "Burning fleeces is not the way I want to teach my sons about sheep farming," he said.

In a letter to Britain's wool producers, Alun Evans, the chairman of the BWMB, described the international market as "disastrous" for British farmers. "The last year has been the most difficult trading period in the history of the board. Wool producers worldwide are experiencing low prices resulting from the effects of over-supply and poor demand," Mr Evans said.

Derrick Wilkinson, the senior economist for the National Farmers' Union said yesterday: "There is a huge glut of wool in the market at the moment, and the strong pound is making things doubly difficult for British farmers. The vogue for wooden floors is not helping as most wool goes for carpets.

"At the same time, other parts of the sheep market have collapsed. The Russian market for British sheepskin declined about a year ago, and lamb prices, after a brief recovery, have fallen off a cliff."

"Unquote"

REMINDER FOR OFFAL INSPECTIONS

By Diana Bernsen

As the season has now started, I thought I would take this opportunity to remind those farmers, on whose properties I have not done any inspections of offal, that I would like to do so.

I notice from looking at the Farming Statistics that most of you do carry out culling, either by mass cull or just for consumption.

As I have mentioned before, even if you only have a few sets of offal when I attend for dog dosing it's a start towards the target of 100 sets, which has been recommended that I inspect per farm.

I have completed inspecting 100 sets of offal on 46 farms. **BUT** there are still remaining 23 farms that I have not inspected any offal on, and 17 farms from which I have inspected small amounts.

Please do not hesitate to telephone me even if you only have a small amount, I will visit at any time, and if necessary I do not mind if it is a weekend.

My telephone number is 32296 or facsimile 32244.

FOR SALE

Approx. 200 2year old wethers at £4.00

Approx. 175 2year old ewes at £4.50

Approx. 350 wethers

(example 3 year olds at £3.50, 4 year olds £3.00)

Payment may be made from 99/00 wool proceeds and free help given on delivery of sheep.

Enquiries to Tex and Mandy Alazia
Port Edgar Farm
Telephone: 43010

DRUG RESIDUES AND WITH-HOLDING PERIODS

by Cameron Bell

With the intensification of agriculture, talk of 'organic' certification and may be one day exported animal products, there is a necessity to be aware of drug residues.

After a drug is administered to an animal (primarily antibiotics and worm drenches in the Falkland Islands), it remains in the animal's tissues (e.g. muscle, fat) for a certain period of time. Some drugs may persist longer than others, depending on the chemical composition of the drug. These traces of remaining drugs are known as **residues**.

Drug residues in animal products, such as meat and milk, pose several problems:

- can lead to antibiotic resistance of disease-causing bacteria in humans, resulting in bacterial disease that cannot be treated with conventional antibiotics
- can be very dangerous for humans who may be allergic to certain drugs, e.g. penicillin
- affect overseas trade as importing countries (e.g. E.U.) may cease imports if drug residues are detected
- in some countries, serious penalties for producers that place animals / animal products containing drug residues on the market are incurred.

To overcome drug residue problems, drug **with-holding periods** have been calculated. This is the *period of time after the last injection in which milk or meat should not be used for human consumption*. For example, penicillin may have a 14-day withholding period for meat and 5 days with-holding period for milk. This means that for 14 days after the last injection the animal shouldn't be slaughtered for human consumption, and milk shouldn't be for human consumption for 5 days.

All veterinary products are labelled with milk and meat withholding periods. It is advisable to always consult the label, as they can be changed from time to time.

Although we are not currently exporting meat products, it is recommended to observe withholding periods at all times, even for home-killed animals. Fortunately, there is minimal use of veterinary drugs currently in our cattle and sheep. Let us hope we can keep it that way.

THE THIRTEENTH WEST FALKLAND RAM & FLEECE SHOW 1999

This will be held in Coast Ridge Farm Woolshed at Fox Bay Village on 29th December 1999.
(all times are in Stanley time).

Entries may be sent to Fox Bay c/o N. Knight, Coast Ridge Farm before the event or brought to the woolshed on the day between 9.00am. – 1.00am.

Judging will commence at 2.30pm. – 4.00pm and be by public ballot. Prizes will be presented at 6.00pm by H.E. the Governor.

Prize list

CLASS 1 FULL WOOL RAM HOGGET

- 1st prize. Engraved Challenge Shield presented by Mr & Mrs Austin Davies + £100 donated by Cable & Wireless plc.
2nd prize. £75 donated by Standard Chartered Bank.
3rd prize. £40 donated by Southern Cross Social Club.
4th prize. £25 donated by R. M. Pitaluga and family.

CLASS 2 FULL WOOL SHEARLING RAM

- 1st prize. Silver Cup presented by Dunnose Head Farm + £50 donated by Cable & Wireless plc.
2nd prize. £75 presented by the F.I.D.C.
3rd prize. £50 presented by Saddle Farm Computers.
4th prize. £25 presented by the Farmers Association.

CLASS 3 FULL WOOL MATURE RAM

- 1st prize. Falkland Islands Wool Marketing Challenge Cup + a replica & £40 presented by Falklands Landholdings Ltd.
2nd prize. Prize donated by the Falkland Islands Company Ltd.
3rd prize. £50 presented by Port Howard Farm.
4th prize. £30 presented by Little Chartres Farm.

CLASS 4 HOGGET FLEECE

- 1st prize. Silver Challenge Cup & replica presented by Meridith Fishing Company & Falkland Hydrocarbon Development Ltd.
2nd prize. £70 voucher donated by Falkland Farmers.
3rd prize. Fuel Voucher presented by Stanley Services.

CLASS 5 ANY FINE WOOL FLEECE OTHER THAN HOGGET

- 1st prize. 'Governors Cup' challenge cup presented by H.E. the Governor + replica presented by " Newton Investment Management Ltd (FIG'S Investment Managers)

All prizes in this class donated by Newton Investment Management Ltd.

2nd prize £75 3rd prize £50 4th prize £25

CLASS 6 ANY 'B' TYPE WETHER FLEECE

- 1st prize. Engraved Challenge Cup presented by Coast Ridge Farm + replica & £25 presented by Ursula Wanglin.

- 2nd prize. £60 donated by F.I. Sheepowners Association.
3rd prize. £40 also donated by F.I.O.S.A.
4th prize. £25 donated by Stanley Electrical.

ADDITIONAL PRIZES

The Champion Ram wins 'The Patricia Luxton Perpetual Challenge Cup' + replica from the Luxton family of Chartres Sheepfarm. And the Cable & Wireless Perpetual Challenge Cup + replica is presented to the Reserve Champion.

Rosettes will be presented for 1st 2nd 3rd and 4th prize winners in all six classes. A Champion and Reserve Champion Rosette is also given. These were all provided by Jim Mcadam, Department of Agriculture N.Ireland.

A Silver Challenge Cup + £75 for the fleece with the highest commercial value -presented by the F.I. Development Corporation.

For 1st 2nd & 3rd prize winners in Class 3 Trophies are donated by Peter Short, Falkland Supplies.

A Challenge Cup for the farm with most points in all classes is donated by Mr Owen Summers.

ADDITIONAL COMPETITIONS

In the 'Guess The Sheep Weight Competition' the winner receives £25 from the Southern Cross Social Club.

The winner of the 'Fleece Weight' competition will receive £25 from Lake Sullivan Farm. Whilst the winner of the 'Micron Estimate' competition will receive £25 from the Argos Fishing Company.

The Department of Agriculture and Falkland Islands Wool Marketing will again be sponsoring a Sheep Judging Competition for the under '21's'.

The Falkland Mill and Warrah Knitwear have kindly donated sweaters. These will be auctioned for show funds after the prizegiving.

F.I.G.A.S. have once again generously agreed to fly fleeces free of charge. Please label fleeces clearly and correctly.

n.b. Due to the ever increasing number of entries, would all intending entrants please indicate the probable number of rams or fleeces to be exhibited so that sufficient pens/tables can be prepared.

Please note that fleece entries, should be skirted fleeces only. All neck belly and stained wool should be removed before the fleece is rolled.

The fleece with the highest commercial value will be judged on the day by two experienced 'wool people' using the following criteria;

Actual greasy weight x estimated yield x current clean price.

These two 'people' will also judge the Champion Ram Class.

The judges decision will be final.

Where replicas are given Challenge Cups are perpetual.

RECIPES

By Mary Henrickson

APPLE CAKE

10 ozs self raising flour
½ teaspoon of salt
½ teaspoon cinnamon
¼ teaspoon ground cloves
4 ozs butter
8 ozs castor sugar
1 egg lightly beaten
1 teaspoon vanilla essence
12 ozs cooking apples grated

To decorate: 1 tablespoon clear honey
1 tablespoon toasted flaked almonds

Method: Grease a 7 inch square cake tin and line it with greaseproof paper. Sift the flour, salt and spices twice. Cream butter and sugar until pale and fluffy. Gradually beat in egg and vanilla. Stir in the grated apple and then fold in the flour. Turn mixture into prepared tin and smooth top. Bake for 1¼ hours (180°C, 350°F or gas mark 4). Leave in tin for 5 minutes then turn onto a wire rack to cool. Remove paper. Brush top with honey and sprinkle with the almonds.

SUGAR BUNS

12 ozs butter
12 ozs sugar
1¼ lb flour
2 teaspoons baking powder
4 eggs beaten

Method: Cream butter and sugar until light and fluffy, gradually add beaten eggs, beating well after each addition. Sift the flour and baking powder and fold into mixture which should be firm enough to roll into balls. Dip tops in sugar and bake in a hot oven for 15 – 20 minutes.

LIGHT FAMILY FRUIT SQUARE

8 ozs self raising flour
6 ozs butter or margarine
6 ozs castor sugar
3 eggs
pinch of salt
3 ozs dried mixed fruit
grated zest of 1 orange
2 tablespoons of milk

Method: Set oven to 180°C, 350°F of gas mark 4. Line an 8 inch square cake tin with buttered greaseproof paper. Cream the fat and the sugar in a bowl add eggs one at a time beating each well into the mixture. Add the fruit and orange zest ensuring it is evenly mixed in, spoon mixture into tin and bake for 40-45 minutes or until a skewer inserted comes out clean. Turn out to cool then cut into squares.

GO INTO THE YEAR 2000 WITH US AT THE
Seafish Chandlery
...who enjoy serving you - our Camp Customers
Why Choose us??

WE OFFER VARIETY & GREAT PRICES

Food & Drink:

An awesome selection of the worlds finest
Wines, Spirits & Beer. Not forgetting a
variety of Soft Drinks and Fruit Juices.

Groceries:-
Wide range of Sauces, Tinned Vegetables,
Assorted Jams, Pasta's, Flour, Sugar, Full and
Semi Skimmed Milk, Mixed Herbs and Spices,
Tinned Fruits, Biscuits, Cereals, Cooking
Oils, etc, etc

Cleaning/Toiletries Materials:

Bleaches, Fabric Conditioners, Soap Powders,
Polish, Mr. Muscle products, Mops, Brooms,
Bin Bags, Tooth Paste, Soap, All Purpose
Clothes, Baby Nappies, Loo Rolls....

Animal Food:

Layers Mash, Layers Pellets, Whole Maize Corn,
Pollard Wheat, Clean Wheat, Pony Feed,
Champion Dog Food, Pedigree Chum,
Whiskas....

Clothing:

Fowl Weather Clothing, Boiler Suits, Variety
Gloves, Goretex Socks, Safety Vests, Goggles,
Hard Hats, Life Jackets, Survival Suits, Buffalo
Jackets....

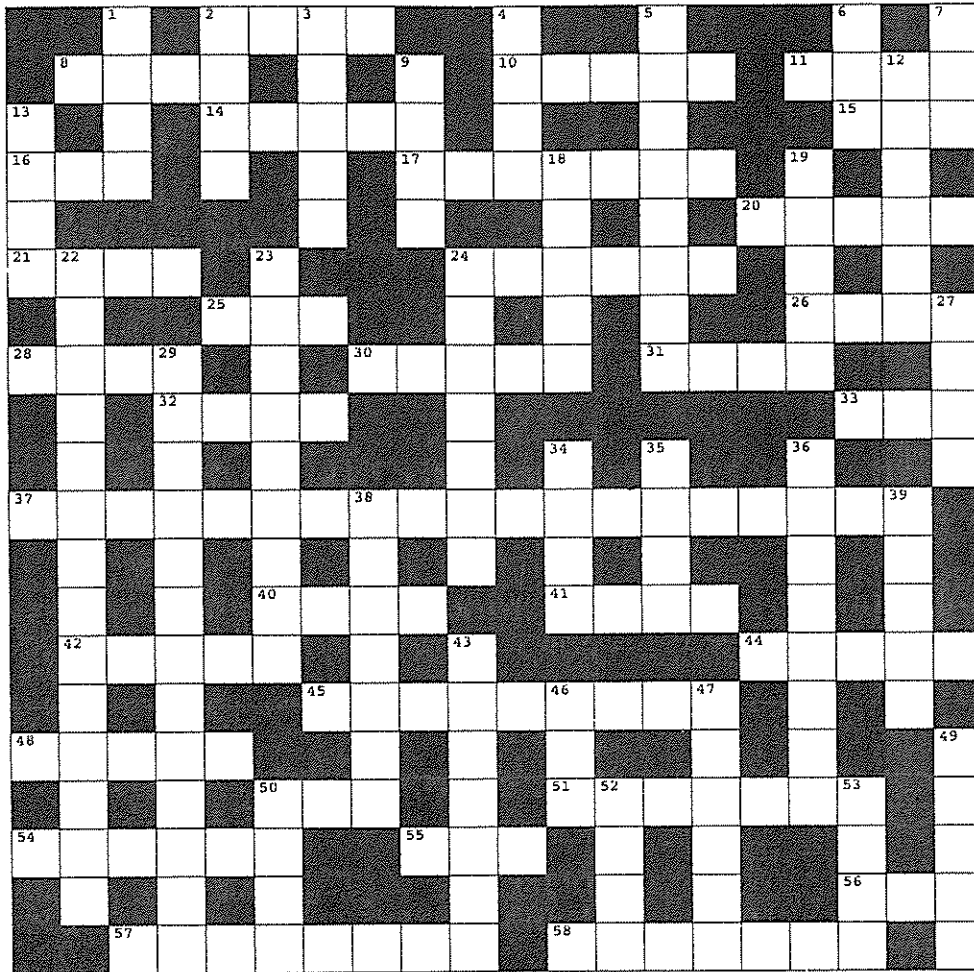
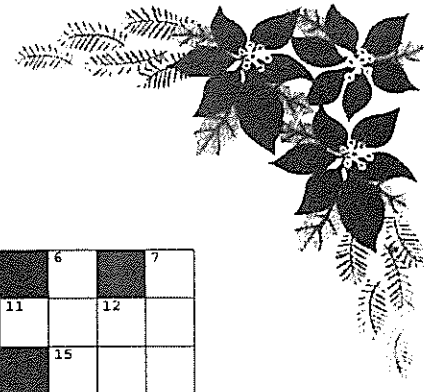
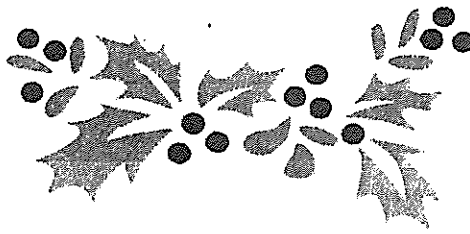
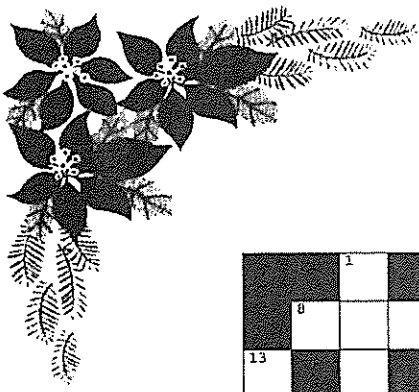
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ACROSS

DOWN

- | | |
|---------------------------------------|--|
| 2. WHAT MAKES A CHRISTMAS WHITE? | 1. MALE BIRD |
| 8. HIND LEG JOINT | 2. MIDDLE STEP OF THE TRIPLE JUMP |
| 10. REMEMBRANCE FLOWER | 3. YOUNG OWL |
| 11. TOP OF ANIMALS HEAD | 4. ROTISSERIE |
| 14. ESKIMO HOUSE | 5. HOUSE BIRDS |
| 15. GOLF BALL SUPPORT | 6. MUSTARD, CHILLIES, CURRY, ETC. |
| 16. SQUID DYE | 7. BEER |
| 17. POINT OF MEASUREMENT IN A HORSE | 9. THE NOISE OF A WOLF |
| 20. WORTH | 12. NITROGEN FIXING PLANT |
| 21. OLD WOUND MARK | 13. SNAKE SOUND |
| 24. TREE WOOD USED FOR CRICKET BATS | 18. PRICKLY CHRISTMAS PLANT |
| 25. DRIED GRASS FODDER | 19. INSTRUMENTAL FARM ON THE WEST? |
| 26. 16th GREEK LETTER (P) | 22. TOP RIDER AT SPORTS |
| 28. HOMELESS CHILD | 23. 8th OF DECEMBER |
| 30. ON THIS DATE | 24. TYPE OF DUCK FOUND IN FALKLANDS |
| 31. ONIONS TO PLANT | 27. NETTLE STING ANTIDOTE |
| 32. GREEK 'I' THAT DOESN'T MEAN A JOT | 29. GIVEN ON THE FIFTH DAY OF XMAS |
| 33. OLD DEPARTMENT OF AGRICULTURE | 34. ADULT MALE RED DEER |
| 37. BFBS FUND RAISING APPEAL | 35. FLAVOURING OR MEDICINAL PLANT |
| 40. TIP | 36. FOREST LOCATION |
| 41. JEER AND TAUNT | 38. WENCESLAS LOOKED OUT ON THIS FEAST DAY |
| 42. MERRY | 39. FRIED BREAD RING |
| 44. SCRUB CLEAN WITH ABRASIVE | 43. LOSS OF MEMORY |
| 45. CELEBRATORY DRINK | 46. WORKING INSECT |
| 48. CROW USED TO PROTECT CROPS | 47. HIGH REGARD |
| 50. THERE WAS NO ROOM HERE FOR MARY | 49. MR CLAUS |
| 51. PIGS FOOT | 50. NOTION |
| 54. TAKEN FROM THE MOTHER | 52. WEALTHY |
| 55. DONKEY | 53. RED GEM |
| 56. FLYING MAMMAL | |
| 57. PART OF THE OLD 'GREEN PATCH' | |
| 58. FLUE | |

