# The Wool Press

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**All the regular features and more!**


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**IMPORTERS PREPARE TO RAISE CASHMERE APPAREL PRICES.**
*Source: Market Report*

# EDITORIAL

The Millennium has finally arrived without the bug, so it seems. I haven't heard of anyone in the Falkland Islands having trouble, so hopefully the bug didn't get here!

How did you enjoy bringing in the New Year? I would like to hear from anyone on the West Falklands who attended the Chartres turn-off party and also a few photographs for the next "Wool Press". I hope it was as good as the SWAMP bash!

Sean and David have arrived back on Saturday's Lanchile, after a well earned rest. I have been looking after Davids legume in various sites, hopefully I have not done too bad a job. Last time I looked they were all still alive!

**As a reminder** – I have had a few Farmers enquiring if they still need to send in a set of accounts for the next Subsistence. The answer is YES. Please send in as soon as you have got the accounts all up to date. If you need some blank forms, let me know so I can send them to you.

On a personal note: I would like to say a big thank you to Robin and Hattie at Port Howard Lodge. John and I had a very enjoyable weekend down at Purvis and wish them both the best of luck.

## THE LOST CHAPTER IN GENESIS.....

Adam was walking around the Garden of Eden feeling very lonely, so God asked him, "What is wrong with you?"
Adam said he didn't have anyone to talk to.
God said that he was going to make Adam a companion and that it would be a woman.
He said, "This person will gather food for you, cook for you, and when you discover clothing she'll wash if for you. She will always agree with every decision you make. She will bear you children and never ask you to get up in the middle of the night to take care of them. She will not nag you and will always be the first to admit she was wrong when you've had a disagreement. She will never have a headache and will freely give you love and passion whenever you need it.
Adam asked God, "What will a woman like this cost?"
God replied, "An arm and a leg."
Then Adam asked, "What can I get for a rib?"
The rest is history.....

**A VERY HAPPY NEW YEAR TO ALL FARMERS AND READERS**

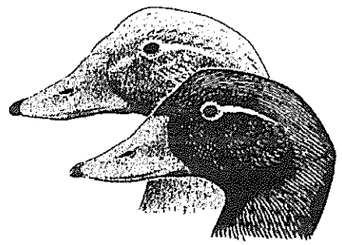
**THIS MONTHS CONTRIBUTORS**

| | | | |
|---|---|---|---|
| Becky Ingham | Falkland Conservation | Nigel Knight | Farmer, Coast Ridge Farm |
| Aidan Kerr | Snr. Scientist | Jim Elliott | Ex. Met. Officer |
| Ailsa Heathman | Farmer, Estancia Farm | Derek Clelland | Laboratory Technician |
| Mandy McLeod | Farm Management & Training Officer | | |



# CONSERVATION LEGISLATION EXPLAINED

*By Becky Ingham*



***As from the 1st November, the new Conservation of Wildlife and Nature Ordinance 1999 came into effect. This replaces the old legislation from (1964, Wild Animals and Birds Protection Ordinance), as well as the old Fisheries Ordinance and the Nature Reserves Ordinance.***

The main changes for most people, including those living in the camp, are with regard to the shooting of birds.

For shooting ducks and geese, it should be remembered that whilst Upland Geese, feral Domestic Geese and Mallard Duck can still be taken at any time, Yellow-billed Teal and Crested Duck can only be taken under licence between 1st April and 31st June. Under a licence granted by the Government (through the Post Office), eggs from the following species can be taken: Black Browed Albatross, Gentoo Penguin, Magellanic Penguin, Crested Duck, Logger Duck, Yellow Billed Teal and Kelp Gull. These are the only eggs that can be taken and *can only be collected for human consumption, under licence*. Each licence should specify the number and type of eggs it permits the holder to collect. It is now no longer possible, even with an egging licence, to take Rockhopper eggs. This change has been implemented to protect the population in the Falklands of this globally near threatened species. **The maximum fine for committing any of the above offences is £3000.**

All species of butterfly are fully protected, as is the Falklands native (Zebra) Trout, *Aplochiton zebra*. It is an offence to kill or harm these animals in any way or at any time. Fishing for this type of fish is not permitted and if caught accidentally, they should be returned to the water.

Also now protected is the Johnny Rook. Shooting a Johnny Rook now could result in a fine of £3000, EVEN if it is causing damage to livestock or property. The ONLY way a rogue bird can be killed if it is a problem in a specific area is following an application to Government for a licence. This can only be granted for 2 years and must then be reviewed. People wishing to obtain such a licence should contact the Environmental Planning Officer. This bird of prey is one of the rarest birds in the world and this legislation represents the first step in protecting it and ensuring its survival in the Falklands, which could hold up to 75% of the world's population.

Many people in the islands are keen fishermen and the third major change in the new Ordinance sets out the following law for fishing. Trout fishing no longer needs a licence, unless you wish to capture more than six fish in one day, or do so by any method other than rod and line. You do need permission from the landowner on whose land you want to fish, and if you do want to catch more, or use another method, then you DO need a licence.

## Wild Plants

***This section is thankfully fairly straightforward, and if you are unsure as to what these plants look like, well, firstly you are not alone! Secondly, we will be printing pictures of them as soon as we can, so that everyone knows what to look out for. These are the protected species:***

**NATIVE PLANTS**

Hairy Daisy (Erigeron incertus)
Yellow Pale Maiden (Sisyrinchium chilense)
Yellow Orchid (Gavilea littoralis)
Feltons Flower (Calandrinia feltonii)
Gaudichaud's Orchid (Chloraea gaudichaudii)
Falkland Rock Cress
(Phlebolobium maclovianum)
Native Yellow Violet (Viola maculata)
Falklands False Plantain
(Nastanthus falklandicus)

**NON - NATIVE**

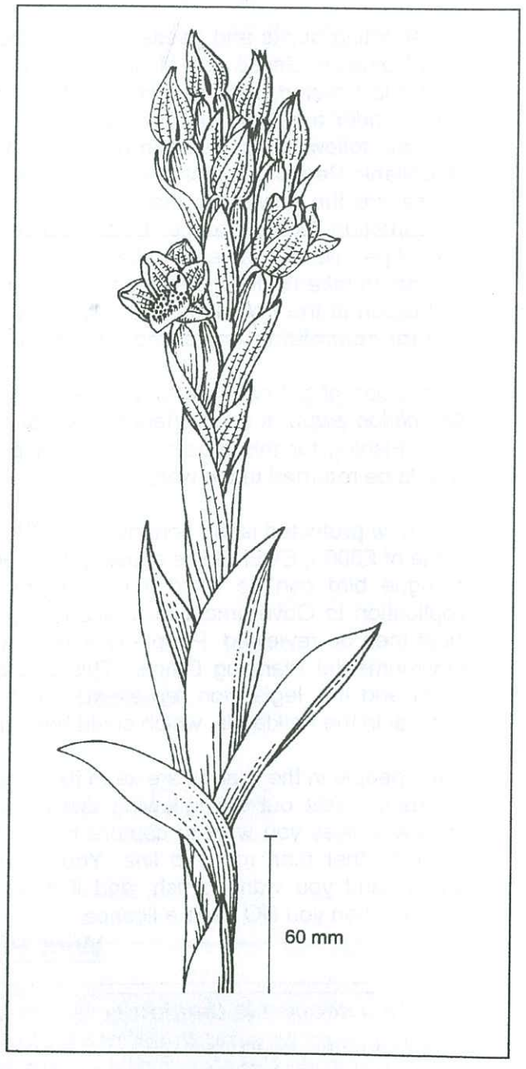
Dusen's Moonwart *(Botrychium dusenii)*
Leathery Shield Fern (*Rumohra adiantiformis)*
Chilean Maidenhair Fern (*Adiantum chilense*)
Shrubby Seablite (*Suaeda argentinensis*)
Fuegian Saxifrage (*Saxifraga magellanica*)
Falkland Pondweed (*Potamogeton linguatus*)
Pale Yellow Orchid (*Gavilea australis*)
Adders Tongue *(Ophioglossum crotalophoroides)*
Comb Fern (*Shizaea fistulosa*)
Fir Clubmoss (*Huperzia selago*)
Yellow Lady's Slipper (*Calceolaria dichtoma*)

The above plants can be removed or destroyed if they are within enclosed settlement areas such as gardens or immediate areas around houses. If growing wild in the camp they cannot be picked or destroyed, unless for the purposes of improving land for agriculture or livestock or forestry, for conserving any wild plant or introducing them to particular areas, preserving public health or safety or preventing spread of disease.

It is allowed to introduce plants not usually found in the Falklands to areas specified for, for example, pasture improvement or livestock rearing, however this is not allowed outside these areas, where it becomes an offence to plant or cause the growth of these plants.

Additionally it is also an offence to keep, transport, sell or exchange, or offer for sale or exchange, any live or dead specimen or part of a plant, or anything derived from any of the plants listed above at any stage of their growth. Again, this can lead to a £3000 fine.

Falklands Conservation are always willing to answer questions on the legislation, so please contact us if you have any queries regarding the new law.




*Chloraea gaudichaudii* **Gaudichauds Orchid**
**Illustration: Christobel King, taken from the 1999/2000 *'Wildflowers of the Falklands'***

## FARMING AT SWAN INLET

**by Mandy McLeod**

Swan Inlet farm is small in physical size by comparison to other farms in the Falklands (one square mile approximately), but what it lacks in area, it makes up for in diversity. It is run as a family unit by Mel and Val Lloyd with their son Chris being employed full time. It is unique in the fact that, apart from Beckside Dairy, it is the only sheepless farm. Some of the enterprises have been established for some time, whilst others are in their infancy.

An established activity, horse riding, ranges from a couple of hours to a couple of days. They are very popular with both Stanley and MPA residents (I've seen them out riding all through the winter months). It's nothing fancy, good solid Falkland Island gear and 30 or so horses. This group had just returned from a ride and had thoroughly enjoyed it. There are several good riding tracks covering a large area, so frequent users don't get bored with the same route each time. Chris takes most rides these days while Mel and Val concentrate on some of their other ventures. Chris helps out with a lot of the other tasks on the farm when not riding.

Swan Inlet sells between 5 and 7 finished pigs a week and the market is steady. The litter sizes are a bit bigger on average than those on Pebble Island due to the different breeds being used. The breeding stock are 'outdoor' pigs, but the finished animals are kept indoors in well ventilated but draft free housing with an automatic nipple drinking system in place. The animals are grouped in order of size and age and gradually rotate around the pens until they are about 20 weeks old when they are ready for slaughter. Having a more intensive farming stock like pigs does mean 365 days a year farming.

There are two main things that strike you at Swan Inlet. One is the expanding green area that is visible on approach. This is mainly Rye and Barley that Mel is 'experimenting' with, hopefully as a grain to feed the pigs and as feed for the horses, selling any surplus crop. It's early days yet, but the crop looks good at this early stage. The proof of the pudding will be at harvest time. If the trials work well, then the green area will continue to widen!

The other thing, once arrived and having had a nose around, is the range of equipment that is in use. It might not look pretty, but it works well.

Mel has a talent for creating something out of scrap. As he says "there is no point spending a lot of money on new equipment to prepare ground or harvest a crop that might not be successful, so lets make something that will do for now". If the revenue increases due to these new ventures, then 'smarter' kit can be bought then, but what he has made is perfectly adequate (and he knows everything about it for servicing and breakdowns!!).

This set of discs above was made from old unused discs that Mel acquired from all over the Islands. The machine below makes neat, effective ditches (for draining some of the wetter areas in preparation for growing crops). The ditch can be as deep as you want to set it and the machine just churnes it out and lays the excavated earth neatly on each bank.

This is just a sample of the machinery at Swan Inlet. There are ploughs, harrows, muck spreaders, rollers, etc., and most have been made from other peoples scrap or cast-offs, which has saved a considerable amount of money. In some cases the cost has not been much more than some welding rods and time.

As you see, there's a lot going on at Swan Inlet. I wonder what idea Mel will have next, or what bit of equipment he'll conjure up out of nothing? Watch this space!!!

# ESTANCIA SHEARING COMPETITION

***By Ailsa Heathman***

Although not as sunny as the race days, Wednesday, 29th December, 1999 dawned clear and dry and remained nice throughout, encourgaging crowds of people to Estancia for the Annual Shearing Competition. This year, shearing was delayed until 11.30am so there was no official lunch break but a barbecue was ongoing in the very capable hands of Jeannie McKay, Ken and Caroline Aldridge and helpers, Michele Evans and Veronica Sinclair also did a roaring trade with their "Tummy Bulger" van and the bar was in the hands of Carol and Terance Phillips.

There were 16 entrants in the Open Competition, 4 in the Intermediates and 10 pairs in the Team Shearing. Proceedings commenced with the open heats resulting in the following 8 Semi Finalists:- Jan Clarke, Mike Pora, Andrew Smith, Billy Moylan, Mike Allan, Paul Phillips, Critta Lee and Hew Greirson. Unfortunately, soon after, Critta went a whiter shade of pink when he badly cut a finger in the shear grinder belt and had to withdraw so Steven Dickson was the next best qualifier for the Semis. It also meant Critta and Mark Fox had to withdraw the Southern Cross Social Team from the Team Shear, leaving 9 pairs to shear in 3 heats of 3.

The Intermediate event followed the Open Heats with Riki Evans remaining victorious with a score of 50.55. 2nd place went to James Butler with 52.35, Michele Evans 3rd with 60.95 and Arturo Tellez was 4th with 80.85.

The Open Semi-finals were next which produced the 4 finalists:- Andrew Smith, Hew Greirson, Paul Phillips and Mike Pora. They took a breather and polished their handpieces while the Team Shear took place with much hilarity lightening the atmosphere. Co-ordinator, Nyree Heathman, disqualified her father and Riki Evans for only shearing 5 sheep while everyone else did 6 – 3 each.

The winners were Hew Greirson and John Jones, followed by Paul Phillips and Lee Molkenbuhr in second place and Peter McKay and Andrew Smith in 3rd place.

Emerging from the finals as the 1999 Champion was Hew Greirson with 51.95 points, followed by Paul Phillips with 52.70, Mike Pora with 53.35 and Andrew Smith with 56.93. Therefore, Paul and Andrew are the qualifiers to attend the Golden Shears Competition in South Africa in March 2000.

Picking up the Cleanest Pen of Sheep award for the third year running was Paul Phillips.

Once again, Tootie Ford kept the atmosphere light and everyone highly entertained with his commentary – a pity we could not broadcast it!

This year, Mr Peter Scott-King visiting the Islands, presented the prizes. I think he learnt a little more about the shearers he gets from the Falklands throughout the day with some enlightening talks from Tootie!

Keith Heathman rounded off the days events by producing the 'hangi' from the depths of the earth, where it had been gently cooking all day and very good it was too.

I can only conclude by thanking the many people who helped with all the preparations and those who turn up each year to lend a hand on the day. Without you all, there would be no competition. Also very grateful thanks to all who donated so generously to make the shearing prizes worth while.

**Shearing Competition Sponsors:**
Lister Shearing Competition Ltd., Farmers Association, F.I.C. Ltd., Department of Agriculture, Falkland Farmers Ltd, Falkland Landholdings, Mr & Mrs G Smith, Mr & Mrs R Lee, Mr & Mrs J Jones, Mr & Mrs P Phillips, Mr & Mrs T Phillips, Mr H Grierson and Miss S Smith, Mr R Alazia and Mr & Mrs R Binnie.

**Board of Judges were:**
George Smith, Neil McKay, Owen Summers, Derek Clarke and Robbie Maddocks.

Ron Binnie judged the shorn sheep in the back pen.

## TREE BOMBS!

*By Aidan Kerr*

"Up to 900,000 young trees could be planted in a day using a method pioneered by a former RAF pilot" claims Paul Brown the Environment Correspondent of *The Guardian* (2/9/99).

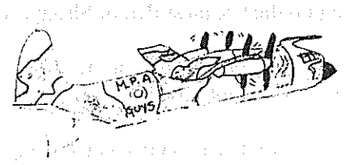
Hercules transport planes, once used for dropping land mines in war zones, are to be specially adapted for the purpose. Jack Walters, a former RAF pilot, thought up the idea which is now being developed by Lockheed Martin Aerospace in the USA.

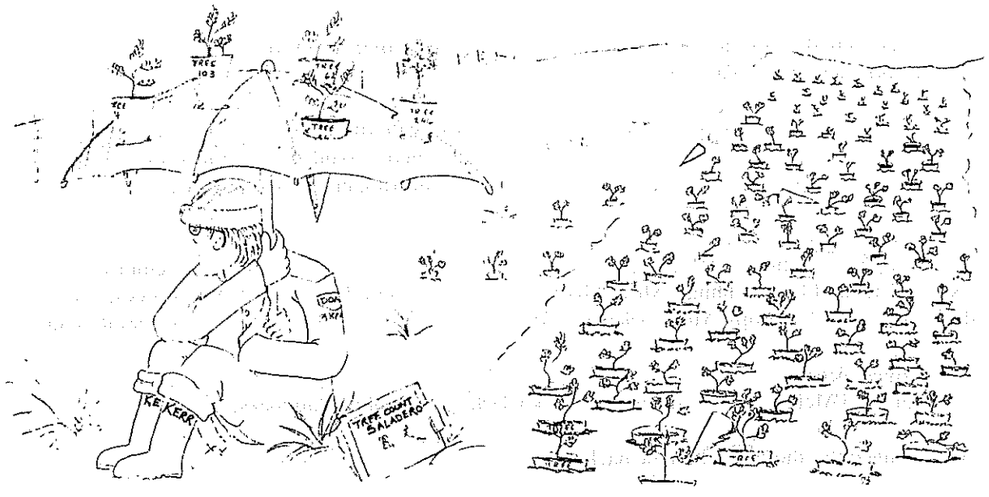
Each tree seedling is contained in a cone, originally designed for the 'laying' of land mines from the air. It is claimed that each cone can bury itself at the correct planting depth. The cone also contains fertiliser and a moisture-attracting material which helps conserve water for the roots. Amazingly, the metal in the cones then 'rots' allowing the roots to spread out and grow.

Plans are afoot to 'bomb' the Scottish mountains, the Sinai desert in Egypt and the cleared areas of the Black Forest in Germany.

Next stop the Falklands? Imagine a 'Herc' flying at 130 knots and dropping 3,000 cones per minute in a pattern across the 'camp'. At this rate the company estimates that 125,000 trees could be planted in each sortie totalling almost a million a day, or a billion a year! It would certainly take some of the back breaking and tedious work out of tree planting but I suspect the method is not as straightforward as the article describes it. Lets just wait and see how well the idea works in the Scottish hills!

What will they think of next?




## THE THIRTEENTH WEST FALKLAND RAM & FLEECE SHOW 1999 PRIZE LIST

| Prize | Donated by | Won by | Points |
|---|---|---|---|
| **Class 1 Full Wool Ram Hoggett** | | | |
| 1st Prize | Engraved Challenge Shield presented by Mr & Mrs Austin Davies & £100 donated by Cable & Wireless PLC. | Coast Ridge Farm | 88 |
| 2nd prize | £75 donated by Standard Chartered Bank | Coast Ridge Farm | 66 |
| 3rd Prize | £40 donated by Southern Cross Social Club | Boundary Farm | 43 |
| 4th Prize | £25 donated by R M Pitaluga & Family | Boundary Farm | 35 |
| **Class 2 Full Wool Shearling Ram** | | | |
| 1st Prize | Silver cup presented by Dunnose Head Farm plus £50 donated by Cable & Wireless PLC | Coast Ridge Farm | 116 |
| 2nd Prize | £75 presented by F.I.D.C. | Coast Ridge Farm | 87 |
| 3rd Prize | £50 presented by Saddle Farm Computers. | Coast Ridge Farm | 66 |
| 4th Prize | £25 presented by the Farmers Association | Shallow Harbour | 60 |
| **Class 3 Full Wool Mature Ram** | | | |
| 1st prize | Falkland Islands Wool Marketing Challenge cup, a replica plus £40 presented by Falklands Landholdings Ltd. | Shallow Harbour | 116 |
| 2nd Prize | Prize donated by the F.I.C. Ltd | Coast Ridge | 87 |
| 3rd Prize | £50 presented by Port Howard Farm | Coast Ridge | 52 |
| 4th Prize | £30 presented by Little Chartres Farm | Boundary Farm | 40 |
| **Class 4 Hoggett Fleece** | | | |
| 1st Prize | Silver Challenge Cup & replica presented by Meredith Fishing Company & Falkland Hydrocarbon Development Ltd. | Chartres | 57 |
| 2nd Prize | £70 voucher donated by Falkland Farmers | Coast Ridge | 39 |
| 3rd Prize | £50 fuel voucher donated by Stanley Services | Pickthorne | 35 |
| 4th Prize | £30 voucher also from Falkland Farmers | Chartres | 27 |

**Class 5 Any Fine Wool Fleece other than hoggett**

| | | | |
|---|---|---|---|
| 1st Prize | 'Governors Cup' challenge cup presented by HE The Governor plus replica presented by 'Newton Investment Management Ltd (FIG's investment managers) | Horseshoe Bay | 79 |
| 2nd Prize | £75 from Newton Investment | Horseshoe Bay | 53 |
| 3rd Prize | £50 from Newton Investment | Shallow Harbour | 38 |
| 4th Prize | £25 from Newton Investment | Coast Ridge | 37 |

**Class 6 Any 'B' type wether fleece**

| | | | |
|---|---|---|---|
| 1st Prize | Engraved challenge cup presented by Coast Ridge Farm plus replica & £25 Presented by Ursula Wanglin | Coast Ridge | 69 |
| 2nd Prize | £60 donated by F.I. Sheepowners Association. | Coast Ridge | 45 |
| 3rd Prize | £40 also donated by FISOA. | Coast Ridge | 42 |
| 4th Prize | £25 donated by Stanley Electrical | Harps Farm | 25 |

**Additional prizes**

The Champion ram won by Shallow Harbour farm wins 'The Patricia Luxton Perpetual Challenge Cup' plus replica from the Luxton family Chartres.

The Cable & Wireless Perpetual Challenge cup plus replica is presented to the Reserve Champion won by Coast Ridge Farm.

Rosettes were presented for 1st, 2nd, 3rd and 4th prize winners in all six classes. A Champion and Reserve Champion rosette were also given. These were all provided by Jim McAdam, Department of Agriculture, Northern Ireland.

A Silver Challenge Cup plus £75 for the fleece with the highest commercial value, presented by the F.I.D.C. won by Horseshoe Bay with a fleece having an estimated value of £18.36 .

The Challenge Cup for the farm with most points in all classes, donated by Mr Owen Summers, was won by Coast Ridge Farm.

**Additional competitions**

In the 'Guess the Sheep Weight Competition' the winner received £25 from the Southern Cross Social Club won by Sam Cockwell who guessed closest with 94.5kg.

The winner of the 'Fleece Weight' competition received £25 from Lake Sulivan Farm won by Marlene Marsh who was closest with a guess of 6.0kgs.

Whilst the winner of the 'Micron Estimate' competition received £25 from Argos Fishing Company, won by Sammy Hirtle who guessed 29.6 micron.

The Department of Agriculture and Falkland Islands Wool Marketing again sponsored the sheep judging competition for the under 21's won by Nadia Smith, runners up were the Sawle children.

**Additional credits**

The Falkland Mill (FIDC) and Warrah Knitwear kindly donated sweaters. These items were then auctioned by Rodney Lee for show funds after the prizegiving.

F.I.G.A.S. once again generously agreed to fly fleeces free of charge.

Tony and Lynn Blake and friends for the barbecue, with meat supplied by Little Chartres, Coast Ridge, Philomel and Lake Sulivan farms.

Justin for transforming the woolshed. Keith, Tony and Susan for taking entries.

Rodney and Leon for judging, all those who did the sums afterwards, Lisa for sorting it all out and the Department of Agriculture for their assistance before and after the event.

His Excellency the Governor and Norma for presenting the prizes.

The committee of the Southern Cross Social Club and not forgetting the residents of Fox Bay for being excellent hosts.

***N. A. Knight***
**Organiser W.F.R. & F.S.**

**TRACTOR AND TRAILER INCIDENT**
**(WOOL PRESS PHOTOGRAPH DEC'99)**
***From Nigel Knight***

I have just been reading the **Wool Press** and thought I should send in an Explanation for the Tractor and Trailer incident;

**Explanations;**

1) Recently in Ireland there had been a series of minor robberies in which road signs had been defaced or stolen. A while ago traffic lights had been stolen in Dublin. The Guadia issued a statement saying` some people would stop at nothing`. Mindful of this a farmer who had just moved into the area was driving his tractor and trailer down a country road. He had just been into town to pick up a new fridge as his old one was broken. As he approached the Bridge he read a road sign which should have said `Danger Hump Back Bridge` unfortunately for him the sign had been defaced and so he thought it read ` Danger ump pack fridge` being a law abiding citizen he thought he should do just that but as it was such a large fridge he decided to tip it out of the trailer. Unfortunately there was insufficient oil in the gearbox to tip the trailer, so he thought that if he drove the tractor up the side of the bridge then the oil would run to the back of the gearbox and he would be able to tip the trailer. As you can see whilst carrying out this manoeuvre his back wheels dropped into a hole and he became well and truly stuck.

2) Did you hear about the Irish Farmer that tried to tip his trailer but for some reason the tipping ram would not extend. He thought about this for a while before hitting on a cunning plan. What he decided to do was break up some `Viagra` tablets and mix it with the hydraulic oil in the gearbox. Well, he thought `if it works for him` unfortunately he must have put too much in for not only did the trailer tip up but so did the tractor.

**Captions;**

a) Who said Irish Farmers were poor tippers.

b) This must be the ` Tip` of the Week .

c) This must be the `abridged` version.

# STANLEY WEATHER SITES

*By Jim Elliott*

As a sequel to my summary of Stanley weather sites (Wool Press August 1999) may I add the following new information.

1. **SUNSHINE RECORDER**. As stated, the instrument which was installed in Government House, was under the personal responsibility of the Governor – initially Governor Wilson and passed on to subsequent governors until the instrument was moved from Government House to Murray Heights in 1946. The card on which bright sunshine is recorded needs to be changed daily. The mental picture of His Excellency braving the elements outside Government House., ostrich plumes thrashing about in the wind, but here is an account of a personal experience.

"And there used to appear in the early mornings on the croquet lawn, impudently independent of any Kew gardener, noble and succulent mushrooms, which my wife herself delighted to pick, which I was taking the sunshine records of the past 24 hours (generally beating those of England) from the apparatus at the edge of the lawn". (Sir Reginald St. Johnston, Acting-Governor, 1919).

2. **EARLY WEATHER RECORDS**. This is a more serious situation. The National Meteorological Archives at Bracknell is the body which is responsible for the storage of Falklands' data. – But some data, particularly Cape Pembroke data – appears to have "mislaid" much of the data from early years. Data which was known to be stored with the United Kingdom Meteorological Office, and was known to be there by Brooks (1) in 1920 and Pepper (2) in 1954. Some manuscript copies were held in Stanley, but may have disappeared during the 1982 occupation.

Although doubts were expressed over the accuracy of some of these early observations, the loss of data from what must be one of the longest records in the Southern Hemisphere is devastating, and should be officially investigated.


1. Brooks – The Climate & Weather of the Falkland Islands & South Georgia, 1920.
2. Pepper – The Meteorology of the Falkland Islands & Dependencies, 1954.


Laurie Keats – a shearer of 10 years ago and who's daughter worked as a rousie and also worked at Goose Green, would like to get in touch with any farmer/reader who remembers him.

*His address is:*

**42 Fleet Street, Masterton, New Zealand.**
**Telephone: 06 378 7710**
**e. mail : cundykeats@xtra.co.nz**

# WORDS OF WISDOM

*By Derek Clelland*

I love deadlines. I especially like the whooshing sound they make as they go flying by.

I don't have an attitude problem; you have a perception problem.

I don't suffer from stress. I am a carrier.

Never argue with an idiot. They drag you down to their level then beat you with experience.

Accept that some days you are the pigeon and some days the statue.

The more crap that you put up with, the more crap you are going to get.

If at first you don't succeed, try again. Then quit. No use in being a damn fool about it.

Everything can be filed under 'miscellaneous'.

If it wasn't for the last minute, nothing would get done.

Following the rules will not get the job done.

Getting the job done is no excuse for not following the rules.

If you are good, you will be assigned all the work. If you are really good, you will get out of it.

Anyone can do any amount of work provided it isn't the work he/she is supposed to be doing.

When confronted with a difficult problem you can solve it more easily by reducing it to the question, "How would the Lone Ranger handle this?"

I can only please one person per day. Today is not your day. Tomorrow is not looking good either.

# DOG DOSING DATES FOR 2000

| | | | |
|---|---|---|---|
| **January 5th** | **- Droncit** | **August 2nd** | **- Drontal-P** |
| **February 16th** | **- Drontal-P** | **September 13th** | **- Droncit** |
| **March 29th** | **- Droncit** | **October 25th** | **- Drontal-P** |
| **May 10th** | **- Drontal-P** | **December 6th** | **- Droncit** |
| **June 21st** | **- Droncit** | **January 17th 2001** | **- Drontal -P** |

## IFA SAYS FARM INCOME DOWN 10% THIS YEAR

*By Seán Mac Connell, Agriculture Correspondent*

Farm income will fall by 10 per cent this year, taking the drop in earnings during the last two years to 17 per cent, the president of the Irish Farmers' Association said yesterday.

Accusing the Government of not recognising the depth of the recession in agriculture, Mr Tom Parlon said while other sectors argued about how much they should be paid, income for farmers continued to shrink. He said the 1999 income figures showed an average price reduction of more than 4 per cent for produce while farmers increased output by about 2.5 per cent.

"Virtually all farmers are getting less for the product. They are producing more and they are facing increased costs and a substantial reduction in the value of direct payments," he said.

Mr Parlon said that at the end of last year, because of bad weather, the Government brought forward some EU payments from early 1999. This had improved the 1998 figures by about 4 per cent but had cut this year's figure by the same amount.

"However, the simple matter is that over the two years, the total reduction is the same, a loss of about 14 per cent in money terms, 17.5 per cent in real terms after inflation," said Mr Parlon.

He said the overall figures hid deep problems in the different sectors. In the cattle sector, which accounts for one-third of farm output, prices fell by a further 5.5 per cent.

"The sector has never recovered from the UK BSE crisis and prices this year are more than 25 per cent below their levels in 1995 before that crisis broke," he said.

The sheep sector was also being undermined by low prices and depressed incomes. Lamb prices had fallen by 21 per cent in the past two years and were 24 per cent lower than at the beginning of this decade.

Pig producers had been losing money for the past two years. Prices fell by a further 10 per cent this year and were now 30 per cent below the 1997 level. Losses at the average pig producing unit stood at £75,000.

Mr Con Lucey, the IFA's economist, said the average industrial wage had increased by about 25 per cent over the same period and the public service pay bill had increased by 50 per cent since 1995.

In contrast, he said, national farm income was about 18 per cent lower than in 1995 and even a moderate recovery next year would not improve the situation. Mr Parlon said low prices were driving farming families to desperation and most could not survive without off-farm income. He called on the Taoiseach, Mr Ahern, to demonstrate the Government's commitment to farming by meeting the plans the organisation had been putting forward over the past year.

Figures given at the press conference showed that 32,000 farmers paid £78 million income tax last year. About 112,000 farmers had returned income on which there was no tax liability.

## NEW AERIAL PHOTOS AVAILABLE

*by Aidan Kerr*

What were you doing during 6-7th March 1999? We can now find out as the aerial photographs taken by the DoA and British Antarctic Survey are now available for viewing at the Department. We can now take orders for extra copies, enlargements and digital images (prices awaiting confirmation) from the printers BKS Ltd, Coleraine in N. Ireland.

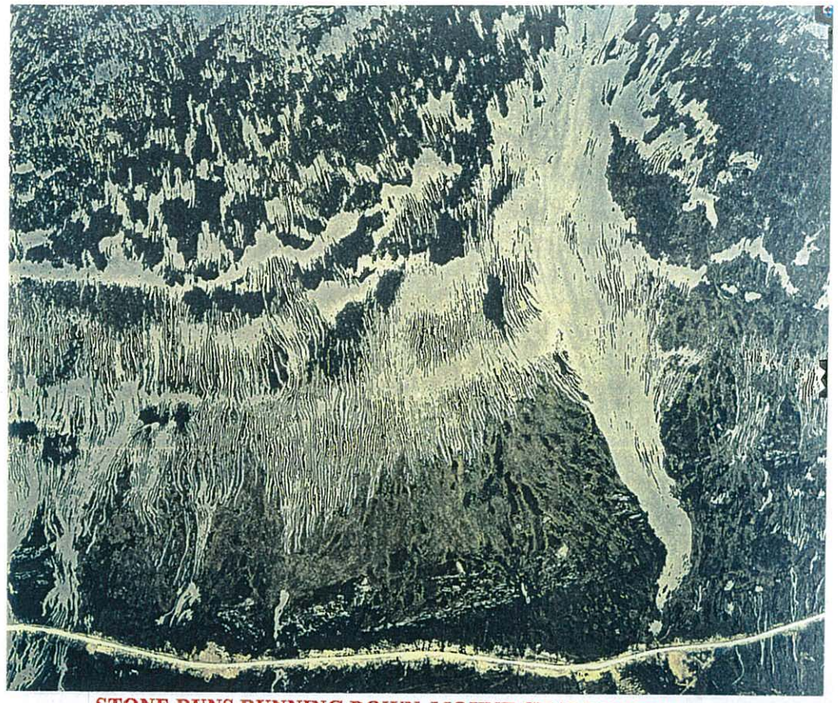
The areas listed below were photographed at a variety of heights from 1,500 to 15,000 feet in both black and white and normal colour. Some colour examples are shown.

**West Falkland** - a triangular area between Fox Bay, Chartres and Coast Ridge covering areas of Chartres, Little Chartres, Coast Ridge, Philomel and Lakelands Farms. Please note that the black and white photographs are more clearer than most of the colour photographs, some of which have extensive cloud cover.

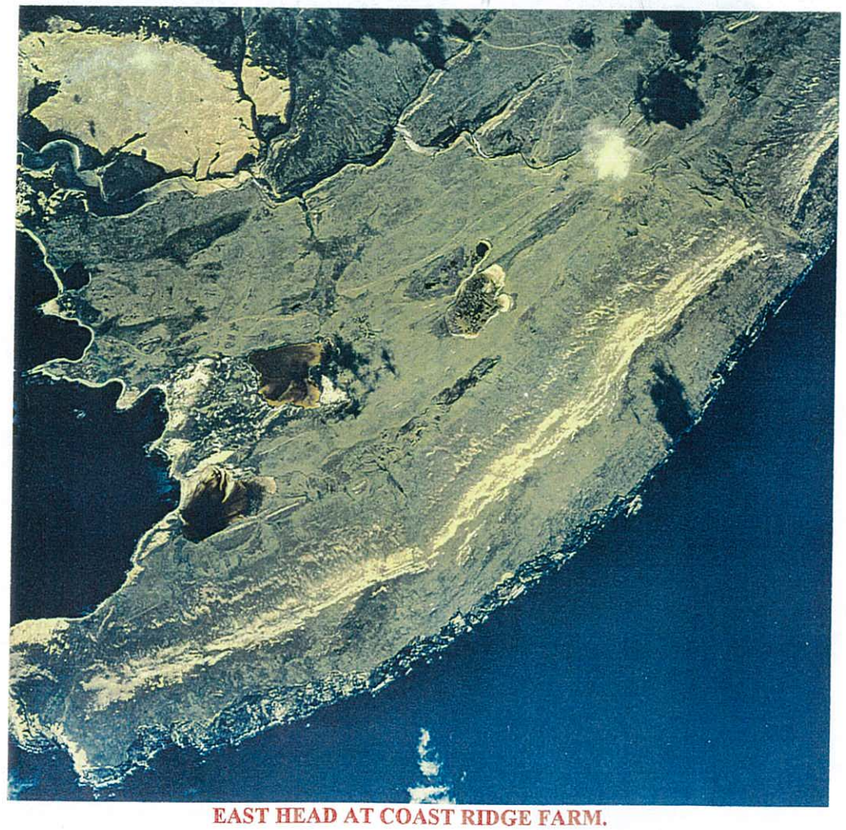
**Calista and Wedge Islands** in Falkland Sound.

**East Falkland** - another triangular area from Port Harriet west to Colorado Pond and south to Bertha's Beach covering areas of Port Harriet Farm, Bluff Cove Farm, Riverside Farm, Wineglass Station, FLH Fitzroy Farm and many of the '50 acre plots'.

There are also photographs of the Department's farm at **Saladero and Brenton Loch** and a few excellent shots of **Stanley.** *Please ring me (Aidan) for details of the specifications available for your area.*

STONE RUNS RUNNING DOWN MOUNT CHALLENGER.



EAST HEAD AT COAST RIDGE FARM.

## PART 2 – AN UPHILL BATTLE
## ONE MAN'S LIFETIME COMMITMENT TO HIGH COUNTRY FARMING

*SOURCE: Wool Grower Spring 1999*

### HUNTING FOR LEGUMES

Most researchers would regard a project on the scale of the footrot resistance breeding programme as the task of a lifetime. However, Patterson has embarked on another radical mission that promises to have major repercussions for hill and high country pastoralism in New Zealand.

Patterson believes that pasture species used traditionally in the South Island high country, particularly oversown legumes, such as white clover, are inappropriate. The cornerstone of his new emphasis is Caucasion clover.

In the last 80s, after disappointing responses to costly oversowing and topdressing on Longslip, Patterson set about looking at alternative herbage species.

After immersing himself in the Lincoln University library for several weeks, he went to visit field trials with Caucasion clovers at Mesopotamia & Mount Possession stations and Craigieburn research area in the Canterbury high country.

What Patterson saw there provoked him to look at a much bigger picture. It appeared that the available species were bred, developed and suited to an environment and input system that was completely different to what was present over much of the South Island high country. In particular, the highly acidic soils, high aluminium levels, low phosphate levels, periodic low moisture levels and farmers' inability to cultivate the soils all suppressed annual dry matter production to a meagre fraction of its potential. This was all exacerbated by the spread of hieracium.

Patterson wanted something different. His next step was to visit Caucasion clover research programmes in Minnesota and Uruguay, and with a grant from the Lincoln College Foundation, he also visited Turkey and the Caucasian Mountains in Georgia, Russia.

The preliminary findings of his adventure were highly encouraging. In the Caucasian Mountains he found prolific legume species thriving under soil and climatic conditions very similar to the Canterbury and Otago high country. Furthermore, the plants have evolved there under intensive grazing pressure from sheep (and rabbits) for the last 10,000 years, and in the natural (although not dominant) range of *Hieracium pilosella*. Fertiliser input has been nil on these subsistence communal grazing lands.

In 1995 Patterson sought the collaboration of researchers from the Georgian Department of Botany to identify and source legume species that could have potential in New Zealand.

The programme cost him £50,000 – out of his own pocket.

Patterson believes the most promising cultivar for New Zealand high country conditions is *Trifolium ambiguum.* It is known locally in Georgia as 'sheep's clover', in recognition of its high value as a forage for sheep.

Though costly and difficult, it is possible to bring seed from the Caucasus to New Zealand, but new biosecurity laws prevent Patterson introducing the very specific rhizobia that would be needed to sustain their cultivation here.

Wrightson Seeds has been developing and marketing a hexaploid strain of *Trifolium ambiguum,* sourced from the Caucasus region in the early 1930's. But Patterson says this cultivar also has a very high phosphate requirement and specific temperature tolerance range – outside that of most potential New Zealand high country applications.

Patterson is surprisingly philosophical about the hurdles he has had to overcome and the high costs of pursuing his beliefs.

He believes that if you set out to risk nothing you risk much more.

He frankly admits that the work has cost him his marriage. He also concedes that his is unlikely to see a realistic return in his lifetime on the resources and energy he has invested in work over three decades. However, he is an unashamed exponent of the need to adopt much longer-term visions on issues of farming practices and sustainability. He quotes an apt Chinese proverb; "If you want to think ahead one year, plant rice. If you want to think ahead one decade, plant trees. If you want to think ahead one century – then you must educate the people."



## CASHMERE PRICES TO GO EVEN HIGHER?

***Source: Market Report – The Wool Record Weekly - January, 7th 2000***

Cashmere prices could soon reach one million yuan per tonne (US$121 per kg.), and the supply shortage, which saw values soar by 157% between April and December, may not ease until May when the new clip starts to come on to the market, according to our correspondent in Beijing.

The price of dehaired Chinese cashmere has risen sharply in the past few months due to a surge in international demand. A successful crackdown on the smuggling of wool has also pushed up the price of cashmere. As wool prices increased, cashmere quotations rose as well.

A source at the Erdos Group, China's largest cashmere manufacturing base, said the price of dehaired cashmere in November was more than double the April level of 350,000 yuan per tonne (8.27 yuan to one US dollar). By December the price has reached 900,000 yuan per tonne. Dehaired cashmere is still in great demand.

Last year, prices hit an all-time low as the market stagnated. Over-supply drove farmers to slaughter their goats in Inner Mongolia, and cuts in production occurred in the rest of China. This over-reaction caused a sudden fall in supply.

Growers did not foresee such a swift U-turn in the market. The Erdos Group, who account for 30% of world production, in the last few months, have experienced a 38% leap in exports of cashmere products to Europe and the United States.

Sales of the group's products in China have also been brisk, and cashmere sweaters have been outselling wool sweaters in some shopping centres. The Erdos Group's income from cashmere sweaters sales in the past few months has increased by 33% over the same period last year. The group say they still cannot satisfy demand.

## IMPORTERS PREPARE TO RAISE CASHMERE APPAREL PRICES.

Fears are widespread that sustained United States demand for cashmere apparel will continue to push up prices as supplies dwindle. Reports our Tokyo correspondent.

Prices for dehaired super-grade cashmere (38 mm.) reached US$110 per kg. in mid-December, a 22% rise in two months.

The recent take-off in prices stems from a rapid tightening at the supply side in China. The major part of 1999's supplies has been consumed by cashmere apparel, estimated at 10 million pieces, destined for the United States.

Predictions that United States orders may ease because of the spiraling cost of dehaired cashmere, were swiftly followed by information that North American importers were making enquiries of shippers based on a clothing-unit price of 18 US cents per gram. This would represent a substantial rise in the contract, due to be finalised in March, for the autumn/winter 2000/01 ranges.

Japanese woollen spinners and apparel makers are being asked to use already-imported cashmere carefully. The view is that, while Continental Europe, the United Kingdom, Japan and other user-countries bought dehaired cashmere throughout 1999, their purchases will still be insufficient to meet demand for next autumn/winter.

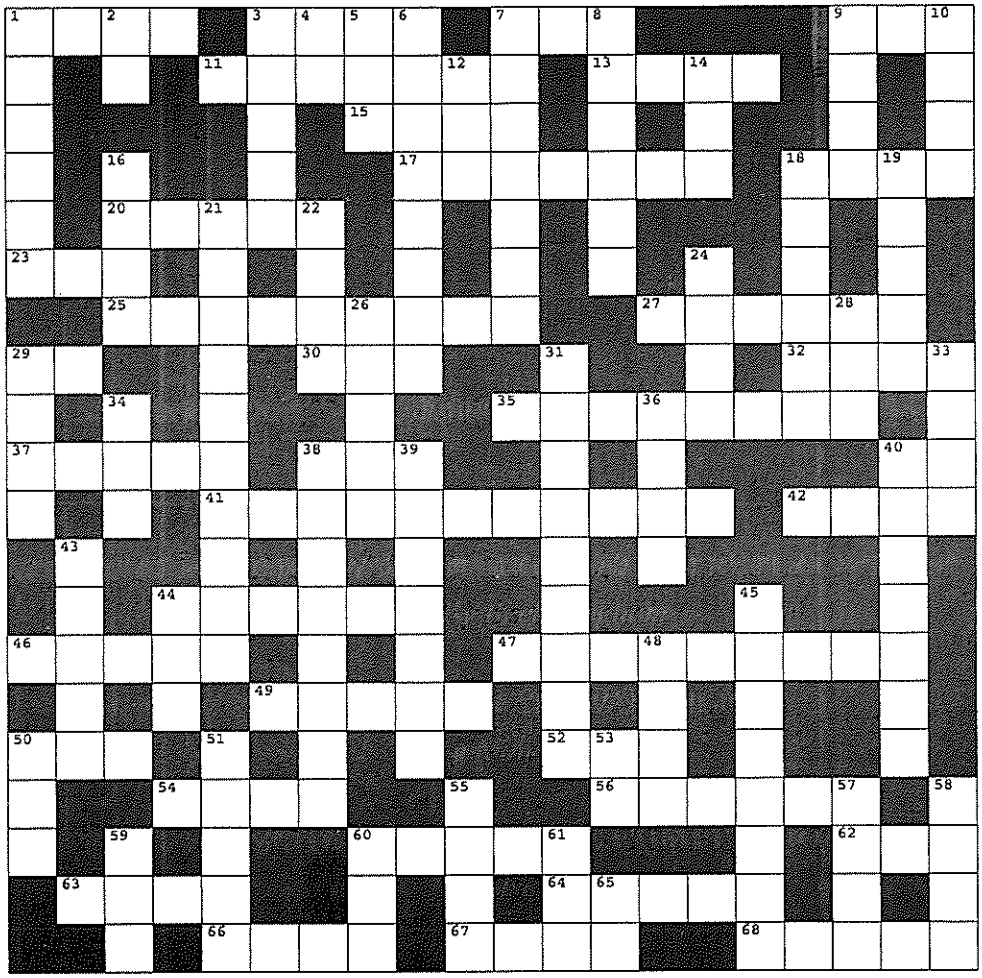
Japan needs to buy more dehaired cashmere early this year, without waiting for new supplies to come on the market in May and June. Dehaired cashmere is being quoted at US$80 for 30 mm., which is the equivalent of ¥10,000 on a yarn basis.

Local yarn-market quotations are around ¥9,500 per kg., which is nearly twice the start-price of yarn sold for the present autumn/winter season. This level is too dear for spinners on the buying side but not high enough for yarn-sellers.

Cashmere business has now shifted entirely to specialist clothing manufacturers and retailers.

Japan's purchases of dehaired cashmere totalled 936 tons in the first 10 months of last year – nearly three times the volume in the same period of 1998. Japan bought 1,883 tons five years ago.

HAPPY NEW YEAR



ACROSS

1. GOLF IMPLEMENT
3. CIRCULAR BAND
7. BEER CROP
9. CUT THE GRASS
11. FIRST MONTH OF THE YEAR
13. GIRL
15. STOOD OR WALKED ON
17. WINGED MESSENGER
18. THAT HURT!!
20. SHOULD DO
23. TOTAL
25. SCATTER SEED
27. STINGING PLANT
29. DAD
30. AN IMMEASURABLE PERIOD OF TIME
32. LONG FISH
35. BLUE GEM
37. TOOTHACHE SPICE
38. NOT VERY MANY
40. 3.14159
41. MILLENNIUM YEARS
42. AVERAGE
44. MOVES LIKE A PENDULUM
46. FEMALE FOX
47. FAMOUS TENNIS TOURNAMENT
49. LONG LEGGED WATER BIRD
50. FELINE
52. ANIMAL STAR SIGN
54. ATTACHES TO THE BIT
56. DOZEN
60. FOE
62. ATMOSPHERE
63. SONG OF PRAISE
64. ENOUGH
66. EGG MIDDLE
67. KIND
68. OUT OF PRACTICE

DOWN

1. FINE PIECES OF CAKE
2. RISEN
3. BORN LIKE A CHICKEN
4. NOT TURNED OFF
5. DISMISSED IN CRICKET
6. HARD CHEESE
7. WATER FAUCET
8. LAND CULTIVATOR
9. LIST OF OPTIONS
10. HOPE FOR
12. FISH EGGS
14. PIG HOUSE
16. HENS HEAD PIECE
18. APHRODISIAC SHELL FISH?
19. DESERT MAMMAL
21. CAPITAL OF ASCENSION ISLAND
22. RISE AND FALL OF WATER
24. NET
26. BRIGHT METEORIC BODY
28. ON THE SHELTERED SIDE
29. ANIMAL FOR CARRYING LOADS
31. POUCHED MAMMAL
33. TWIRL
34. TYPE OF HORSE
36. SMALL HORSE
38. DECORATIVE WATER CASCADE
39. FACIAL CAT HAIR
40. WHITE ROOT VEGETABLE
43. HEATHER
44. EXPANSE OF WATER
45. FIREARM
48. FOREHEAD
50. CHILDS BED
51. FEMALE DONKEY
53. EXTRA TERRESTRIAL
55. FUEL FOR RAYBURN
57. DEVOURS
58. GOLD AND SILVER WEIGHT SYSTEM
59. VISUAL ORGAN
60. LARGE DEER
61. CONSTANT SHRILL BARK
65. MYSELF

# The Wool Press

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**NATIONAL STUD FLOCK RAM SALE**
*By Doug Cartridge*

**WILLOWS IN THE WIND**
*By Malcom Dawson*

**THE S.W.A.M.P. BASH**
*By Lucy Ellis*

**CASHMERE GOATS**
*By Doug Cartridge*

**WETHER TRIAL – 1999/2000 RESULTS**
*By Sean Miller*

**THE GUANACO AND THE FALKLAND ISLANDS**
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**WEED CONTROL WITH A BACKPACK SPRAYER**
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**DARWIN HARBOUR SPORTS ASSOCIATION**
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*By Bob Reid*

**A LAMB TRIAL**
*By Sean Miller*

## EDITORIAL

*By Mandy McLeod*

With Charlene sunning herself in Santiago, Lilian and I have been given the task of preparing this Wool Press for the printers. If you find any mistakes, you can blame me because I did the proof reading.

I proof read in two stages, once to look for errors and once to get the understanding of the articles and the presentation of the publication as a whole. The first part is a strange tasks, because when you are so intent on looking for mistakes in someone else's grammar or spelling ability, you don't actually 'read' the Wool Press or 'take in' the messages being conveyed in the articles. That's why I read it a second time (not looking for errors). It then occurred to me, that being critical in everyday things that are happening around us must also have that 'blinkering' effect, because our concentration is intent on looking for fault, rather than appreciating what is really going on.



**THIS MONTHS CONTRIBUTORS**

| | | | |
|---|---|---|---|
| Doug Cartridge | Wool Adviser | Sean Miller | Sheep Nutrionist |
| Malcom Dawson | NI Dept. of Agriculture | David Parsons | Legume Agronomist |
| Cameron Bell | Veterinary Officer | Bob Reid | Director of Agriculture |
| Lucy Ellis | Ag. Assistant | William Franklin | Professor – Iowa State University, USA. |



## WILLOWS IN THE WIND


*By Malcolm Dawson - NORTHERN IRELAND HORTICULTURE AND PLANT BREEDING STATION, LOUGHGALL, CO ARMAGH BT61 8JB*
*(malcolm.dawson@dani.gov.uk)*


Willows have many local names, Sallys or Sallows, Withy and Osier - however the botanical name for willows, *Salix* is derived from two gaelic words 'sal' meaning near and 'lis' meaning water indicating their adaption in this respect. Whilst this is true, their roots having special cells called aerenchyma allowing them to withstand periods of flooding, they do not thrive in areas of standing or stagnant water. Willows have a long history with ample fossil evidence placing them on the earth long before man, during the cretaceous period 70-135 million years ago. There is also pollen evidence from pre glacial times (10,000 years ago) that there were native willows in the Falkland Islands. However there are none native today though introduced willows, predominately *S. viminalis,* are present in many gardens in Stanley and the outlying settlements.

Willow or *Salix* is an unusually large genus of plants with more than three hundred separate species. They are all woody deciduous plants with separate male and female individuals within the same species and are conveniently divided into three groups; *Salix*-tree willows, *Caprisalix*-bush willows and *Chamaetia*-dwarf/creeping willows, though all are commonly referred to as *Salix*. It is almost exclusively a northern hemisphere genus concentrated in the temperate and arctic areas. There are some *Salix* native to the southern hemisphere the most significant being *S. humboltiana* in South America. This diversity provides the basis for exploiting a wide range of environmental conditions from heavy, poorly structured clays to cut over peat and sand or alluvial deposits on exposed coastal sites and fertile river valleys. Willows also have a number of other distinct advantages which facilitate their use, principally their ability to produce adventitious roots from pre-formed buds within the bark – letting them root easily. Ideally a cutting should be 20-25 cms long prepared from one-year-old shoots and with a minimum basal diameter of 8mm to ensure adequate nutritional reserves prior to establishment. They also coppice very effectively, that is they regrow from dormant buds at or even below ground level when cut back.

**20 cm hardwood cuttings**

In an effort to exploit these unique characteristics the Shackleton Scholarship fund administered by the United Kingdom Falkland Islands Trust provided funding to evaluate the potential willows had in providing shelter either for the establishment of more permanent coniferous shelter belts or as front line shelter in themselves. Whilst shelter was the primary objective of establishing willows in the Falkland Islands they have the potential to be used in a range of other primary and secondary ways; soil conservation, browse for animal feeding, biofiltration for treating wastes, as a source or energy and simply in an amenity context.

**Coppice regrowth 6 weeks from harvest**

Most of these uses have immediate and practical application in the Islands but two of them are particularly relevant. In an environment which remains relatively unspoiled there is a need to address the question of effluents of all types whether domestic or industrial. To this end, and in a climate where rainfall is low and on soils which are nutritionally poor, the use of willow as a biofilter removing environmentally damaging nutrient elements from these effluents should be considered an important primary use of willow coppice. It would also have the secondary advantage of producing a renewable, and in the context of greenhouse gas emissions, a neutral source of energy - a willow coppice uses as much carbon dioxide in its growth as it produces on its combustion.

Where willow windbreaks are considered as primary front line shelter they will require to be managed on a continuous basis to ensure that they remain in a juvenile state and continue to grow vigorously. This will entail coppicing (cutting back to ground level) on a regular basis. Ideally the windbreak would be divided into two in a linear direction and the two halves harvested sequentially. Thus the shelter element is never lost. In this way the windbreak also produces a secondary energy product in the form of the coppiced wood. Once dried, and in the low rainfall and windy conditions in the islands this is likely to be very effective, and chipped the wood can be used in purpose designed boiler systems as the primary energy source for heating. It can also be used in the combined production of heat and electricity but settlement size would generally be too small to justify the capital investment necessary.

***Salix burjatica***

However before these or any other uses of willow can be considered it will be necessary to assess the potential of as wide a range of willow as possible in the soil and climatic conditions on the Islands. To that end and with the help of Rod Parfitt the curator of the U.K. National Willows Collection at Long Ashton Research Station at Bristol a range of forty five species and varieties was selected. Selections were made on the basis of those which would be most likely to survive on the low pH and nutritionally poor peat soils, and in the conditions of low rainfall experienced on the Islands. Those selected ranged from the bush types *S. cinerea S. daphnoides, S. sitchensis* known pioneer species which survive in extreme conditions to *S. alba* the tree willow more used to kinder environmental conditions and from the salt tolerant *S. purpurea* to the more exotic *S. glaucophylloides* and *S. rossica*. In addition ten species/varieties were identified which had shown potential in similarly exposed conditions in Iceland. Those included in the project were *S. alaxensis, S. hookeriana, S. barclayii, S. phylicifolia* and *S. scouleriana* and were provided by Thorarinn Benedikz of the Icelandic Forest Service. These Icelandic species brought the total to fifty five representing an extremely wide geographic distribution from Alaska to California and from UK and Europe to China, Japan and New Zealand. As a precaution because these exotic species were being established in a new environment only male clones were included. This climmates their spread by seed and ensures they do not become weeds!

With the help of Aidan Kerr and Tim Bonner from the Department of Agriculture three sites were identified at Saladero and Moody Brook on the East Falkland and Port Howard on West Falkland. Although generally sheltered, either artificially or topographically, these three sites represent a wide range of the soil types likely to be encountered on the Islands. The collection has been established on each site as twenty tree plots and planting was completed in late November.

Although slightly later than optimum the planting time chosen allowed the collection of sufficiently mature planting stock in Northern Hemisphere conditions. The plots and sites have been laid out in such a way as to facilitate a full scientific evaluation of the data collected. Initially this will be restricted to survival at the end of the first growing season because, due to different rooting patterns, top growth is not a good indicator of potential future performance. The plots will be cut back to ground level (coppiced) in the dormant season after the first years growth and in the winter of 2001 a full evaluation of survival, growth potential, yield and disease susceptibility will be made.

In addition to these trials a few 'best guess' species were planted on a larger scale within the existing shelter belt trial at the Fitzroy Britannia site. These were *S. dasyclados, S. hirtei* Rosewarne White *S. hirtei,* Delamere and *S. viminalis* Gigantea. Also *S. interior* and *S. exigua* have been planted on eroded sand and peat on Cape Pembroke and a clay patch at Fitzroy to utilise their ability to produce root suckers for the potential stabilisation and re-vegetation of these areas.

*S. viminalis* is the predominant introduced species of willow in the islands. To increase the diversity of 'garden' willow available a collection of seventeen purely amenity willows were selected from the National Collection. Selection was based on leaf and bark colour and catkin display. These were not included in the main site trials but were distributed to individuals for 'hands on' garden evaluation.

This collection of fifty-seven species and varieties with windbreak potential and seventeen amenity species represents a major resource. It offers a unique opportunity, not just to assess a potentially important shelter species for the Islands, but to widen the experience with willow generally to include the Southern Hemisphere and a very challenging environment.

## The S.W.A.M.P bash

***By Lucy Ellis***

The morning of the 30th Dec. dawned clear and warm - time for action! Paul Chapman, Paul Bonner, Teddy Summers, Sally and myself arrived at the Football Pitch with the scaffolding for the stage and got to work.

As the morning wore on more and more people arrived to help, somewhere along the line Buster Summers appeared with his telescopic forklift thingy and the action really took off. Kiffer and Plex were busy at work installing the necessary electricity power points, Gary Clement and Marty Smith were instrumental in sorting out many a hitch and by the end of a very long day we had the stage frame built. The 31st was a different story; gale force winds and squalls – not nice. Once again a veritable army of helpers arrived, this time including the Hillside crew and the Marquees- these were to be the beer tents. Buster and his forklift were invaluable once more, what had at first seemed like an impossible job, considering the wind, to cloak the stage with tarpaulins now looked (but wasn't) a piece of cake. With the stage flooring down it started to look like something was going to happen. Marquees up, lighting installed, two burger vans, Shorty's Diner cranking up the barby, the Globe and Stanley Arms arranging gallons of booze and musicians and tons of equipment getting into place, by 7.30 it was just about ready.

At 8.30 we were back (after a brief breather and a swift tot to calm the nerves) and busy selling T-shirts. When it got dark the lighting went on and it was quite some sight, especially with the huge lighting tower of Raymond Poole's. In the gloom we could see a steady but growing stream of people heading our way from all directions, quite a scary but exhilarating sight! And all of a sudden it happened! Gary Clement, our compere for the night, got the show on the road, the music started and the crowd started to dance, the atmosphere was wonderful. The countdown to midnight was electric and Tim "pyro" Miller's fireworks really were outstanding.

With the Fighting Pig Band, Jock and Liz, the 2 Tims, The Gordon Peck Trio, Patrick Watts and loads of D.J's we had an excellent night of music which eventually ground to an exhausted but exhilarated end around 4 a.m. Those of us who were still in party-mode staggered off to The Globe to dance away the time until the sun came up – watched from the end of the public jetty!

We had a great night, brilliant music, the weather behaved itself, there was an excellent atmosphere and the crowd was in top form.

***What a brilliant way to welcome in the New Millennium!***

# CASHMERE GOATS

*By Doug Cartridge*

Most of the readers of this article will be aware that the Department of Agriculture are doing something with goats and many will be wondering why? The purpose of the following is to bring everyone up to date with the purpose of this work and the rationale behind doing it.

A herd of cashmere goats was imported into the Falklands almost 10 years ago from Scotland. After a brief stay at Goose Green they were relocated to Pebble Island. The purpose of the original importation was to evaluate the economic benefit cashmere producing goats may have to the Falkland Islands agricultural industry. Many of the answers are still not known due to various factors that are irrelevant at this point.

There is no such thing as a cashmere goat even though we may use that terminology. There are many different breeds of goat in the world and some produce an undercoat fibre known as cashmere. Goats producing the most valuable cashmere generally originate from feral populations in countries that experience harsh climatic conditions. For example goats producing high yields of fine cashmere are found in China, Mongolia, and Afghanistan in the Northern Hemisphere and some parts of New Zealand and Australia in the Southern Hemisphere. The reason goats produce cashmere is as a form of insulation against cold winter temperatures. Accepting this, selected goats living in the Falklands should produce relatively good yields of cashmere. Goats tend to be browsers and will eat many things sheep will not. They especially like trees, much to Aidan's delight, and frequently eat small shrubs etc., in other parts of the world. They will actively select green grass when available though it has been shown in other countries that they are complementary to sheep and cattle in their grazing behaviour. That is to say, that because you have now introduced 100 goats into a camp you won't have to reduce the sheep numbers by 100 to get the same wool production. Because goats select a different more varied diet you may not have to reduce sheep numbers at all. These aspects will be fully monitored at Saladero in the future.

Feral goats generally produce a long coarse outer coat which usually has no economic value, some produce an undercoat or down which is shed at the onset of spring and begins to grow again as the days get shorter. Cashmere is defined as an undercoat fibre produced from goats, which is less than 19-micron fibre diameter. The world demand for cashmere is currently very high, though as wool has, the price has fluctuated greatly in the past. The current market price for fine (less than 16.5 micron) white cashmere of greater than 30mm is between US$100 and US$120 per kilogram.

High producing goats can yield up to and in fact exceed 250 grams per year, though production varies greatly between animals. One advantage is that cashmere production is highly heritable thus can be increased relatively easily through selective breeding. The difficult part is that down weight and fibre diameter have a strong positive correlation i.e. generally as down weight goes up micron goes up. The negative or positive affect of nutrition on fibre weight and fibre diameter is much less on goats than it is on sheep.

How and when is the cashmere harvested? As stated earlier, goats begin to shed their down at the onset of spring, experience in the Falklands suggests that this is normally from mid-September onwards. In order not to lose valuable cashmere, harvest must commence at the start of shedding. There are two methods commonly used for harvest one being shearing and the other combing. There are several pro's and con's associated with both methods.

Combing is the preferred method for the fibre as far less outer coat fibres are mixed in with the down prior to dehairing (dehairing is the process used to separate the coarse outer coat from the fine undercoat). Combing has the advantage that generally only the under coat is removed thus leaving the outer coat on the animal to protect it from exposure (Goats, due to their low body fat content, are particularly prone to death from exposure). The disadvantage of combing is that it is time consuming (up to 15 minutes per goat) and that the entire herd will not begin or finish shedding at the same time. This means that combing will occur over a matter of several weeks and some goats will need to be combed more than once.

Shearing is the other option which obviously is far less time consuming though due to the need to harvest in mid-September the practicality of providing adequate housing or shelter post shearing may make this option less attractive, however this will depend on numbers and on the particular situation.

One other option, which has been tried in various parts of the world, is covering, both post shearing or prior to combing/shearing. Covering post shearing has the obvious benefit of increased survival, while covering prior to shearing allows for the goats to be shorn later in the season when weather conditions are more favourable. Covering prior to combing allows time for all of the goats in the herd to shed and has the added advantage of allowing time for the entire skin area of each individual animal to shed prior to combing. This should eliminate the need to comb individual goats more than once and allow combing to take place over a more compact period of time. Most of the information available to us at this time states that considerable difficulty was experienced in keeping the covers on the goats. This will be researched further as under Falklands conditions covering prior to combing could be very beneficial.

A herd of 33 female goats (does) was relocated from Pebble Island to Saladero almost three months ago. They were initially kept in a small paddock that had been fenced with boundary netting and an internal electric outrigger. They settled down very quickly and much to our delight none have escaped. These goats previously roamed Marble Mountain on Pebble Is.,and had largely been left to their own devices. They were relatively flighty when first relocated, however, through the good work of John and Viv Hobman they have quietened down very quickly. They work very well with dogs but must be managed calmly; if frightened they will panic. Goats are intelligent animals and respect good electric fences in the form of outriggers on existing fences or well-insulated 5 wire fences. The handling side in yards or sheds is still to be experienced at Saladero, however we will be having our first attempt over the coming weeks. We will report on the success of that after the event has happened and at this stage will not comment any further!!! A further quantity of does will be moved to Saladero in a few months time from Broken Island.

The aim is to clear all goats from Broken Island, leave a small nucleus of does on Pebble, start a breeding programme at Saladero with approximately 200 does and to relocate any castrated males to another privately owned property. The breeding programme will also be used to evaluate the economics of cashmere production in the Falklands and as an extension exercise to train potential goat owners how to efficiently handle goats. This whole programme is being run in conjunction with Raymond Evans who still firmly believes there could be a future for goat farming in the Falkland Islands.

Another opportunity of income from goats is meat. Goat meat is the most commonly eaten meat in the world today. There is definite potential for meat sales, however, the local market may be limited in the short-term due to wrong perceptions. The meat is similar to sheep meat though contains far less fat.

In the not so distant future you may be able to purchase goat meat at Freshco's, *especially if they start misbehaving.*

# WETHER TRIAL – 1999/2000 RESULTS

***By Sean Miller***

The sheep have come in for the year. They've now been running in Goose Green's Ceritos camp as a single mob for 16 months. In January 2000 they were shorn and fleeces weighed, their body condition was assessed, liveweight recorded, and their wool characteristics were determined. I've only just managed to get the results into a readable form for this edition of the Wool Press – I'll expand on the results in more detail next month. Here are the results so far.

| Property | Condition score | Liveweight (kg) | Greasy fleece (kg) | Clean fleece (kg) | Wool growth efficiency ($g/kg^{0.75}$) | Fibre diameter (microns) | # of sheep lost 1999/00 |
|---|---|---|---|---|---|---|---|
| Beaver Island | 2.3 $^{c}$ | 43 $^{ac}$ | 3.3 $^{b}$ | 2.4 | 141 | 23.1 $^{f}$ | 1 |
| Coast Ridge | 3.4 $^{ae}$ | 42 $^{bc}$ | 4.0 $^{a}$ | 2.7 | 164 | 28.2 $^{be}$ | 2 |
| Goose Green | | | | | | | |
| Laguna Isla | 3.1 $^{bde}$ | 38 $^{de}$ | 3.9 $^{ac}$ | 2.6 | 167 | 29.9 $^{ac}$ | 1 |
| Ceritos | 3.0 $^{b}$ | 41 $^{bd}$ | 3.9 $^{ac}$ | 2.5 | 158 | 29.4 $^{beg}$ | not counted |
| Horseshoe Bay | 3.5 $^{a}$ | 41 $^{bcd}$ | 3.8 $^{ad}$ | 2.5 | 157 | 29.0 $^{bcd}$ | 2 |
| Main Point | 3.3 $^{ad}$ | 38 $^{e}$ | 3.5 $^{bd}$ | 2.3 | 149 | 27.3 $^{e}$ | 2 |
| Port Stephens | 3.5 $^{a}$ | 46 $^{a}$ | 3.8 $^{ad}$ | 2.6 | 148 | 31.0 $^{a}$ | 3 |
| Smylies | 3.3 $^{ad}$ | 42 $^{bc}$ | 3.7 $^{ad}$ | 2.5 | 150 | 28.0 $^{cd}$ | 3 |
| Wreck Point | 3.1 $^{bd}$ | 39 $^{de}$ | 3.6 $^{bcd}$ | 2.4 | 159 | 28.1 $^{egd}$ | 2 |

*Within each column, properties with different letters are significantly different.*
*If there are no letters in a column, the values are not significantly different from each other.*

Explanation of terms

liveweight was measured after shearing
fleece weight is minus belly
wool growth efficiency is a measure of the amount of wool grown per kg of shorn (metabolic) liveweight
fibre diameter and yield measured from hand-plucked mid-side samples
clean fleece = (greasy fleece*yield)/100

*Highs and Lows*

Following is a summary of the best and worst performers amongst the sheep shorn this year.

| | Highs | | Lows | |
|---|---|---|---|---|
| Clean fleece | 3.9 kg | Goose Green | 1.4 kg | HB, MP & PS |
| Greasy fleece | 5.2 kg | Pt Stephens | 2.1 kg | MP & PS |
| Fibre diameter | 18.9 microns | Beaver Island | 35.5 microns | Main Point |
| Wool growth efficiency | 247 $g/kg^{0.75}$ | Horseshoe | 77 $g/kg^{0.75}$ | Pt Stephens |
| Liveweight | 56 kg | Beaver | 31 kg | Wreck Point |
| Condition | 4.5 | Goose Green | 1.5 | Beaver |

*Compared to last year ...*

So how does this compare to last year? We still haven't completed the wool analyses from last year, but for comparison, this is how the weights and condition looked when they were shorn in January 1999.

| Farm | Jan 1999 shearing | Jan 2000 shearing | *Change 99/00* | Jan 1999 condition | Jan 2000 condition | *Change 99/00* |
|---|---|---|---|---|---|---|
| Beaver Island | 50 kg | 47 kg | *-3 kg* | 2.4 | 2.3 | *-0.1* |
| Coast Ridge | 42 | 46 | *+4* | 2.5 | 3.4 | *+0.9* |
| Goose Green | | | | | | |
| Laguna Isla | 42 | 42 | *0* | 2.4 | 3.1 | *+0.7* |
| Ceritos | - | 45 | - | - | 3.0 | - |
| Horseshoe Bay | 40 | 45 | *+5* | 2.7 | 3.5 | *+0.8* |
| Main Point | 39 | 41 | *+2* | 2.6 | 3.3 | *+0.7* |
| Port Stephens | 42 | 49 | *+7* | 2.5 | 3.5 | *+1.0* |
| Smylies | 40 | 46 | *+6* | 2.3 | 3.3 | *+1.0* |
| Wreck Point | 41 | 42 | *+1* | 2.7 | 3.1 | *+0.4* |

*Big differences or small?*

What can we get from this information then? Well, one of the most important conclusions could be that there really aren't huge differences between the groups of sheep (excluding the Cormos), but there are huge differences within each of the groups. Importantly, and despite the apparent 0.4 kg difference between the highest clipping and lowest clipping group, **clean fleece weights are not significantly different between properties/breeds**. The analysis tells us that this apparent difference is due to chance rather than breeding.

To confirm these initial conclusion we need to convert these production figures into pound (£) returns for each fleece, and thus for each group of sheep. I'll have those figures next month as well as the remaining wool growth figures for the previous year for comparison.

Some important points need to be remembered when looking at the results from this trial. Namely, the sheep are now just over 4 years old (this is their 4$^{th}$ fleece), and having been born in 1995 now represent 4 year old genetics. This poses the question,"Would we see any difference between these groups and sheep born this year on these (and every other) property?" In addition, this trial brings together different sheep onto the same feeding area for the first time. The differences we are seeing between both individual sheep and groups of sheep are purely genetic.

*Are 3.9 kg, 19 micron fleeces possible from 4 y.o. wethers?*

A quick look at the highs and lows table really shows what could be achieved if we could get the Falklands flock towards the top of the production table i.e. 4 y.o. wethers producing 3.9 kg clean fleeces at 19 microns. Perhaps 19 microns is a bit ambitious given that the finest sheep were clearly the Beaver Island Cormos. But then again perhaps not, as the Cormos are still surviving as well if not better than many of the other Corriedale types. Nevertheless, the finest of the other sheep excluding the Cormos was 23 microns (Coast Ridge).

*What is a realistic target?*

The top 10% of sheep in the trial ranked on clean fleece weight cut 3.0 kg clean or heavier (average of 3.3 kg). These sheep had an average fibre diameter of 30 microns. If the top 10% are ranked on fibre diameter, this changes to 23 microns. This figure stays the same whether the Cormos are included or not. Average fleece weight of the top 10% ranked on fibre diameter is just 2.3 kg clean. Thus, it is probably realistic to look to the immediate future with targets of 3.0 kg + clean fleeces from 4 y.o. wethers coming in at under 25 microns regardless of breed.

*Does breed matter?*

A controversial issue! What we are seeing in this trial, which includes sheep ranging from as near to pure Corriedales as we have, to strongly Polwarth types suggests that breed is not influencing wool production as obviously as conventional thought would suggest. Survival rates, or more correctly, the number of sheep not turning up for shearing are not significantly different between the groups of sheep, all of them are in very good condition, and there is far more variation between the animals within each group than there is between the groups from different properties. But, you say, they're on Goose Green country ...

It's an argument that is very, very difficult to resolve. It would be interesting indeed to take this trial a step further and look at these same groups of sheep (perhaps moving onto a 1996 or 1997 drop of wethers) on some of the 'worst' wether country around.

What is certain is that if these sheep were rams or ewes, and we were taking the top 10% off to contribute to a group breeding scheme, we would be taking about the same number of top sheep from each of these farms – i.e. each of these farms has about the same number of 'top' sheep in the top 10% as each other. No one farm (or breed) is dominating the rankings.

*A note on Wool Efficiency*

You'll note in the first table a column called wool growth efficiency. This measurement is an indication of how well individual animals convert grass into wool. Since the amount of food a sheep eats is directly related to its bodyweight, and if we relate how much wool it grows to its bodyweight, we can estimate how efficient it really is producing wool from grass. In this case we have converted wool growth (from the clean fleece weight) to an estimate of efficiency by dividing by the 'metabolic liveweight' of the animal. The term metabolic liveweight simply means that we have made a correction to allow for differences in how much feed and water was in the sheep's gut at the time of weighing. Calculated this way, wool efficiency is almost impossible to use as a tool for selecting animals for use in breeding programmes, however it does allow us to make useful comparisons in the context of trials like these.

*Next Month ...*

Between now and next month I'll go through these figures in detail and add some more comments. Already there are some important results to take account of if the industry moves towards a group breeding scheme. In the meantime any comments or questions you would like to ask are welcome, and we can deal with them in detail at the same time.

**Group means, maxima and minima for each property**

| | Condition score | Weight (kg) | GFW (kg) | Total wt (kg) | Yield (%) | CFW (kg) | FD (microns) | Efficiency (g/kg0.75) |
|---|---|---|---|---|---|---|---|---|
| **Beaver Island** | | | | | | | | |
| Maximum | 3.5 | 56 | 4.0 | 59 | 78.4 | 3.0 | 27.0 | 181 |
| Minimum | 1.5 | 36 | 2.4 | 40 | 57.5 | 1.7 | 18.9 | 97 |
| Mean | 2.3 | 43 | 3.3 | 46 | 71.0 | 2.4 | 23.1 | 141 |
| **Coast Ridge** | | | | | | | | |
| Maximum | 4.0 | 49 | 5.0 | 54 | 74.9 | 3.5 | 32.7 | 225 |
| Minimum | 2.5 | 34 | 3.2 | 38 | 57.5 | 2.0 | 23.2 | 116 |
| Mean | 3.4 | 42 | 4.0 | 46 | 67.6 | 2.7 | 28.2 | 164 |
| **FLH/GG Ceritos** | | | | | | | | |
| Maximum | 4.0 | 53 | 5.1 | 56 | 76.1 | 3.9 | 34.0 | 240 |
| Minimum | 2.0 | 32 | 2.8 | 36 | 51.9 | 1.9 | 24.3 | 102 |
| Mean | 3.0 | 41 | 3.9 | 45 | 65.3 | 2.5 | 29.4 | 158 |
| **FLH/GG Laguna Isla** | | | | | | | | |
| Maximum | 4.5 | 45 | 4.9 | 49 | 72.4 | 2.9 | 33.4 | 185 |
| Minimum | 2.5 | 31 | 3.1 | 34 | 55.7 | 2.2 | 27.1 | 145 |
| Mean | 3.1 | 38 | 3.9 | 42 | 65.3 | 2.6 | 29.9 | 167 |
| **Horseshoe Bay** | | | | | | | | |
| Maximum | 4.0 | 48 | 4.9 | 53 | 74.8 | 3.4 | 32.9 | 247 |
| Minimum | 2.5 | 34 | 2.3 | 36 | 58.0 | 1.4 | 25.6 | 99 |
| Mean | 3.5 | 41 | 3.8 | 45 | 67.6 | 2.5 | 29.0 | 157 |
| **Main Point** | | | | | | | | |
| Maximum | 4.0 | 45 | 4.8 | 47 | 71.8 | 3.1 | 35.5 | 198 |
| Minimum | 2.5 | 33 | 2.1 | 35 | 56.8 | 1.4 | 23.8 | 102 |
| Mean | 3.3 | 38 | 3.5 | 41 | 65.2 | 2.3 | 27.3 | 149 |
| **Port Stephens** | | | | | | | | |
| Maximum | 4.0 | 55 | 5.2 | 59 | 74.0 | 3.8 | 34.5 | 203 |
| Minimum | 2.5 | 34 | 2.1 | 38 | 49.2 | 1.4 | 28.1 | 77 |
| Mean | 3.5 | 46 | 3.8 | 49 | 68.7 | 2.6 | 31.0 | 148 |
| **Smylies** | | | | | | | | |
| Maximum | 4.0 | 49 | 4.5 | 53 | 72.0 | 3.0 | 34.9 | 186 |
| Minimum | 2.5 | 33 | 3.0 | 37 | 52.9 | 1.8 | 24.2 | 118 |
| Mean | 3.3 | 42 | 3.7 | 46 | 66.9 | 2.5 | 28.0 | 150 |
| **Wreck Point** | | | | | | | | |
| Maximum | 4.0 | 46 | 4.4 | 50 | 73.5 | 3.2 | 31.4 | 206 |
| Minimum | 2.0 | 31 | 2.5 | 35 | 57.4 | 1.7 | 23.7 | 114 |
| Mean | 3.1 | 39 | 3.6 | 42 | 68.1 | 2.4 | 28.1 | 159 |

**Explanation of terms**

Score - condition score
Weight - shorn liveweight
GFW – greasy fleece weight minus belly
Efficiency – amount of wool grown per kg of shorn metabolic liveweight
Total weight – shorn liveweight + GFW
Yield - yield of clean wool from mid-side sample
CFW – clean fleece weight (Fleece * Yield)/100
FD - fibre diameter estimated from mid-side sample

# THE GUANACO AND THE FALKLAND ISLANDS

***By William L. Franklin***
***(Professor of Animal Ecology, Iowa State University, USA)***

**Summary**

- Domesticated Guanaco don't normally spit, bite and kick!
- Guanaco fibre is worth US$150-350 per pound on the world market.
- Guanaco fibre production is a potential area of agricultural diversification for the Falkland Islands.
- Guanaco meat, skins and tourism also have BIG potential.

## BACKGROUND

The guanaco (*Lama guanicoe*) is one of four members of the South American camelid family: the llama is a domesticated beast of burden, the alpaca a domesticated producer of fine wool, the wild vicuna of high Central Andes, and the wild guanaco. The guanaco is regarded as the wild ancestor of the llama that was domesticated several thousand years ago.

The guanaco is the widest ranging ungulate in South America, distributed from 8 to 55° south latitude. It inhabits a diverse range of arid and semi-arid habitats from sea level to 4500 m on the Andes' west slope from northern Peru to central Chile and on the dry east-facing slopes of the southern Andes, across the Patagonia and to the islands of Tierra del Fuego and Navarino. On the Patagonia steppe the guanaco was historically the most common large mammalian herbivore. Ecologically, the guanaco is to South America what bison, pronghorn antelope, elk, desert mule deer and desert bighorn sheep are to North America.

Based upon modern day livestock stocking rates, it has been estimated that the aboriginal guanaco population was in the order of 30 to 50 million when Europeans first arrived in southern South America in the late 1500s. Overhunting, human encroachment, fences, and competition with domestic livestock, however, severely reduced guanaco numbers over the following 350 years. By mid-1900s guanacos had essentially been eliminated from the Patagonia pampas. Today only some 600,000 guanacos remain in South America, the majority (95%) of which are found in Argentina. Reduction in historical distribution has been 75% in Chile and Peru, and 60% in Argentina. Most populations are confined to highly fragile and low productivity ecosystems. The Convention on International Trade in Endangered Species (CITES), classifies the guanaco as a species that could become threatened with extinction if trade is not regulated.

Interest in the preservation and conservation of the guanaco has recently increased in the host countries of South America, and national and international strategies are striving to conserve and restore numbers. In some cases it is hoped that the guanaco will eventually be rationally utilised for its meat and valuable wool.

## ECONOMIC VALUE

### *History*

For centuries young guanaco (chulengos) were tamed by native Indians as pets for pleasure, and perhaps consciously so, to be later killed for food. Newborn chulengos are easily captured and tamed, so much so that they became readily imprinted on people (no different to bottle fed lambs!) and follow them around without being tied or confined. While the guanaco was utilised throughout its pristine range, it was on the Patagonia that it received the most complete cultural utilisation by the indigenous tribes in southern South America.

***Tourism and Hunting***
Because guanacos are attractive, big in size, and occur in large social groups, they are popular with tourists visiting national parks and reserves in southern Chile. For example, at Torres del Paine National Park, guanacos have demonstrated they can be a big attraction. As a result, local hotels and businesses adjacent to such parks have benefited from tourists who have come to see wildlife and guanacos.

Guanacos have little to no trophy value as a big game species. They have no horns, antlers, nor any "prize" to symbolise the hunter's success. Thus, hunters are not likely to pay private land owners for rights to hunt guanacos.

***Meat***
Guanaco meat has potential economic value. Trials have shown that guanaco and beef have similar protein and ash levels, but guanaco has a lower fat content. Taste panels have reported no differences between beef and guanaco in flavour, aroma, or appearance. Guanaco meat has been judged to be not as tough, and when superior cuts have been sampled, was preferred over beef.

Dried meat (jerky, charqui) is popular in many areas of South America, especially where meat spoilage is a problem. Dried meat has the advantages of long storage, easy transport, and has higher nutritional value than fresh meat. Evaluation by consumers has reported no difference in colour, aroma, taste, tenderness, nor appearance of guanaco compared to beef and horse jerky, and salted dry jerky was preferred over other methods of preparing guanaco dried meat.

Live weight of guanaco two year olds (and older) on Tierra del fuego (Chile) averages 117 kg with no difference between males and females. Carcass dressing percentage average is 56%, slightly higher than cattle (55%) and sheep (50-55%).

There is an active international market that specialises in game meat that might hold potential for guanacos. New Zealand is a major supplier of game meat (venison), exporting around 80% of its total production (16,079 tonnes in 1997), valued at NZ$136.8 million, to Europe. Fifty percent of New Zealand's exports are to Germany. Other countries exporting game meat include Argentina, United Kingdom, and South Africa. While untested and undeveloped, fresh-frozen and dried guanaco meat have strong potential for contributing to this international market.

***Wool and Skins***
There has been a long time use of guanaco wool for local artesian products by indigenous Indian groups and Patagonia gauchos. Soft and furry chulengo pelts have especially been popular for bedspreads and covers.

On a commercial scale, guanaco wool and pelts have been shown to be economically viable products at the national and international level. In Argentina the legal harvest of chulengo pelts has been a multi-million dollar industry. From 1972 through 1979, 443,655 guanaco pelts were exported from Argentina. Mens full length coats made in Italy from guanaco wool cloth have sold for US$3-5,000 in the United States. A 100g piece of finished guanaco cloth in England can run as high as US$64. In the U.S., crude guanaco wool is worth US$50-100 per pound among hand-spinners and the wool home-cottage industry. However, on the world fibre market, guanaco wool can fetch prices of US$150-350 per pound of fibre.

Why is guanaco wool so valued? Guanaco body colour is cinnamon brown with grey-black heads, white throats, and white countershading. Guanaco body wool is silky soft because of its fine diameter. Various studies measuring wool characteristics of captive guanacos have reported fibre diameter 16 –18.6 micros, fibre length 3.0-3.6 cm, medulated fibres 11-28%, percent guard hairs 3-9%, guard hair diameter 73-90 microns, guard hair length 5 cm, fleece weight 400-500g, grease content 1.4-1.6%, and after washing yield of 88-96%. As guanaco fleece weight increases, wool quality does not decrease. In one study, seventy eight percent of the wool shorn from live chulengos averaged 13.6 microns.

Thus guanaco wool is highly attractive because of its colour, softness, warmth and uniqueness. Technology has proven its ability to produce elegant products and the economic value of guanaco wool has been clearly demonstrated. **It holds the potential for being one of the finest wool garments on the world market. At this stage, however, there is not sufficient nor regular production of guanaco wool to maintain a sustained commercialisation of products.**

## MANAGEMENT APPROACHES

While guanacos are being studied and managed primarily as wild populations, captive programmes are beginning to play a more important role. Each approach offers different advantages.

Guanacos can be raised in captivity either as semi- or fully-captive programs. Semi-captive herds utilise large fenced-in areas, animals are allowed pretty much to carry out their normal ecological and social relationships, and supplementary feeding is minimal. Fully-captive programmes use smaller fenced areas, have more control of sex and age composition of groups, and supplementary feeding is used. Animals in fully captive herds can be expected to be tamer and easier to work with. **Captive guanaco are tamed relatively easily, no different to other animal species.** Rare cases of "beserk animals" can occur whereby human-reared chulengos can take on violent behaviour such as spitting and biting, and this was probably the case with the infamous single male that was on West Point Island many years ago. However, this rare case is no different to the behaviour of other hand-reared animals such as lambs and foals which are commonly seen. For the Patagonia agro-ecosystem, raising guanacos in captivity ("guanaco farming") has the potential for agricultural diversification.

Argentina has been the leader in raising guanacos in captivity since 1979 and have had great success. In Chile, improper husbandry and knowledge of guanaco dietary needs have resulted in variable results. Problems encountered included the capture of wild chulengos for establishing and renewing captive herds, hand feeding chulengos, first year mortality, and design of corral infrastructure to habituate guanacos to people. Still, these initial experiments have been valuable learning experiences of basic management and husbandry procedures for raising guanacos on a larger captive scale in the future in Chile.

Guanaco farming does not mean that captive populations would replace wild guanaco populations or current domestic animal systems, but be a supplemental and complementary alternative to traditional livestock production in this grazing agro-ecosystem of southern South America. Guanaco conservationists and managers should discourage the thinking that the only way guanacos can be utilised is for them to be put behind fences. If we want to maintain wild guanaco populations for purposes of sustained-yield production, however, then it is up to managers to develop and demonstrate effective capture techniques.

## THE CASE FOR THE FALKLAND GUANACOS

In the 1930s a small group of guancos were introduced to Staats Island in the West Falklands. Today they still survive there and number over 300. The island is privately owned by Jerome and Sally Poncet of Beaver Island. The population is protected but small numbers have now and then been harvested to reduce numbers in an attempt to minimise damage to fragile plant communities.

The guanaco has clearly demonstrated itself to have high economic value on the mainland. To date no one has put all the necessary ingredients together of proper husbandry and marketing. In the Falklands with proper management of a captive and a free-roaming population, the guanaco could be an important economic resource for land-owners and local communities. To the Falkland's advantage is its history of raising sheep. Much of the technology of the sheep industry is transferable to guanaco husbandry. While it might take a number of years before numbers could be built up to supply the demands of the large woolen mills of Great Britain and Italy, the Falklands have the advantage of its unique marketing name both to the wool cottage industry and the organic markets of Europe and the United States.

The guanaco is a strong candidate for an alternative economic enterprise for the Falkland Islands. Everything has its beginning and the timing for the guanaco to make an important contribution to this economy is highly favourable. It will take close cooperation and coordination between private enterprise and government, yet it's quite possible and quite real. The future will tell.

**Stay tuned next month for a brief report on a visit to the Staats Island guanaco herd.**

## Weed Control with a Backpack Sprayer

By David Parsons

A backpack sprayer can be a useful tool for many weed control applications both in home gardens and on a farm. However, certain steps need to be taken to ensure safety and to prolong the life of the equipment. This article applies mainly to herbicides as they are the most commonly used form of pesticide in the Falklands. Where there is an insect or fungal problem, it would be advisable to look at other possibilities of control before deciding to spray – advice can be obtained from the Department of Agriculture

**Sprayer Safety**

- Don't underestimate the medical risk of pesticides. As a general rule, the toxicities of pesticides from lowest to highest are:

herbicides (plant sprays) ⇒ fungicides (fungal sprays) ⇒ insecticides (insect sprays)

- READ THE INSTRUCTIONS on the bottle before you do anything.
- Have clean water available to wash yourself if necessary.
- Don't spray in windy conditions, otherwise the pesticide will end up where it isn't wanted. In some situations a wiper can be used where sensitive plants are nearby.
- Test the sprayer with water, to check for leaks.
- Extreme caution is required when handling the concentrate – always wear gloves.
- Protective equipment must be appropriate to the risk involved i.e. the toxicity of the specific chemical. Once again, read and apply the instructions.
- Any measuring equipment used, for example to measure the concentrate, should not be used for anything else afterwards.

**Calibrating the Sprayer**

Calibrating the sprayer means knowing how much herbicide is being put onto a given area. If you use too much herbicide you are wasting your money and if you use too little, it may be ineffective. Precision calibration is not possible, but a rough calibration may save having half a tank of Roundup that you don't know what to do with. This sort of calibration will not be possible for spot spraying, and more of a guess is required. The instructions for the herbicide will often give instructions for spot spraying.

- You need to know (pace out) the area in $m^2$ that you which to spray (**A**)
- You need to know the capacity of the tank in litres (**B**)
- You also need to know the output of the tank in m2 (**C**) i.e. what area of ground a full tank will cover. You can work this out by filling the sprayer with water, walking at an even pace and spraying until the tank is empty, and then measuring the area covered. For example I have found that the sprayer I use, with a 15 litre capacity, covers roughly 150m2.

- Amount of water needed (litres) = A x (B/C) i.e. divide B by C then multiply by A

e.g. To spray an area of 100m2 (A) with a tank of 15 litre capacity (B) that has an output (C) of 150m2:

water needed = 100 x (15/150)
= 10 litres or 2/3 of a tank

- Next you need to determine the amount of chemical needed. The application rate (**D**) is normally quoted in litres per hectare (l/ha).

- Amount of chemical needed (ml) = A x D x 0.1

e.g. To spray an area of 100m2 (A) at a rate of 4 l/ha (D):
chemical needed (ml) = 100 x 4 x 0.1
= 40 ml

**Operating the Sprayer**

- A pressure control valve is a useful accessory. During normal spraying, the pressure fluctuates, changing the droplet size and the amount of liquid sprayed. A control valve evens out these fluctuations and holds the spray pressure at a constant preset rate; cutting out if you are not pumping hard enough. This reduces spray drift and delivers a more even coverage.
- Make sure you are using an appropriate nozzle for the type of pesticide. For example, if using the Cooper Pegler sprayers from the DOA, the green nozzle is for herbicides and the yellow nozzle for other pesticides.
- Partly fill with water; add exact quantity of pesticide and top up to the required level with water, ensuring the solution is thoroughly mixed.
- For some plants, particularly "shiny looking" ones, use of a wetting agent may be necessary, to achieve a better spread of the herbicide on the plant. Consult the DOA if unsure.
- It is important to use water that is as pure as possible. Pesticides can be rendered ineffective by using dirty or peaty water, so carrying water from the settlement may be necessary.
- Pump several strokes to build up pressure then open the trigger valve to spray.
- Walk at an even pace and spray as evenly as possible. Plants should be thoroughly wet, but not to the extent that water is dripping off them.

**Care of the Sprayer**

To prevent contamination of the next spray or damage to the equipment, proper cleaning is important.

- Allow any pressurized pesticide to return to the tank before opening the sprayer.
- Choose a safe area, where the tank washings will soak away (not into a water supply).
- Add clean water to dilute the remaining residue. Replace the lid and shake the tank to rinse all internal surfaces.
- Remove the lid and empty the diluted residue onto the soak away. Repeat the process.
- Add water a third time, and pump through the lance and trigger valve.
- Empty any remaining water from the tank and replace the lid.
- Store the sprayer out of direct sunlight.

If you unsure about any aspect of backpack sprayer or chemical use, or need advice on selecting a herbicide for a specific weed, then please contact the Department of Agriculture.

# DARWIN HARBOUR SPORTS ASSOCIATION

## GOOSE GREEN SPORTS MEETING 27TH FEBRUARY TO 2ND MARCH 2000

The 2000 Sports meeting will be held at Goose Green and events will take place on the following days:-

| | | |
|---|---|---|
| Sunday 27th | 9.30am<br>Anytime Sunday afternoon | Dog trials<br>Course Open and entries taken. |
| Monday 28th | 9.00am<br>9.00pm to 1.30am | Horse racing<br>Dance |
| Tuesday 29th | 9.30am<br>9.30pm to 2.00am | Gymkhana<br>Dance |
| Wednesday 1st | 9.30am<br>2.00pm<br>8.00pm | Shearing<br>Football and Fun events<br>A.G.M. |

**Note:** Mr Yule (the Horse Whisperer) will be giving a demonstration in the afternoon.

| | | |
|---|---|---|
| Thursday 2nd | 10.00am | Childrens sports<br>(includes mounted events) |
| | 2.00pm | Steer riding |
| | 9.00pm to 2.00am | Dance **<br>(11.00pm Prize giving) |

** Admission by ticket only (£2 adults)

Anyone wishing to enter for the Dog Trials and Sheep Shearing competitions should contact Diana or Brian on tel. 32296 as soon as possible.

Intending visitor should make arrangements with their hosts by the 18th February.

The tickets for the prize giving dance will be on sale from the Secretary during the week.

We look forward to seeing you all there.

**********

## WESTERN HORSEMAN

Len Yule, from Kentucky, U.S.A., will be holding demonstrations and clinics at:

| | |
|---|---|
| **Goose Green**, East Falklands | Wednesday, March 1st. |
| **Main Point**, West Falklands. | Friday, March 3rd. |
| **Shallow Bay**, West Falkland. | Saturday, March 4th. |
| **Main Point**, West Falkland. | Sunday, March 5th. |
| **North Arm**, East Falkland. | Tuesday, March 7th. |
| **Port Louis**, East Falkland. | Thursday, March 9th. |

(Collections will be made at these events to cover costs.)

**Stanley Racecourse** Friday, March 10th
(A nominal entry fee will be made at these events to cover expenses.)

Followed by a dance at the Town Hall. Anyone requiring individual consultation or in need of further details, please contact Jane Cotter. Tel: 21792 or fax 22147.

## SHEEP SHELTER IN NEW ZEALAND

*By Bob Reid*

I have just read a couple of scientific articles, published in the New Zealand Journal of Agricultural Research, by John Pollard of the Invermay Agricultural Centre, in which he discusses the benefits of shelter for lamb survival. The results of a survey he undertook and a field experiment he conducted are worthy of note.

In 1996 four hundered farmers in West Otago and Southland (the cold and wet area of New Zealand) were asked to share their experiences and to seek their opinions on what type of shelter research was needed.

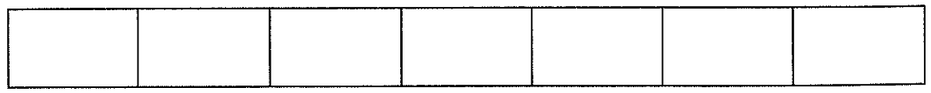
The majority of farmers estimated that, in general, they lost 6 – 10% of their lambs to exposure. Most farmers had no or few paddocks with topographical shelter; most had some shelter belts, but shelter within paddocks (e.g. shrub or tussocks) was not common. A big majority of the respondents (82%) stated that they were likely to plant shelter in the future to project lambs.

Shelter belts were favoured over shelter within paddocks as the most effective way of providing shelter for lambing. Trees, followed by flax, shrubs, then grasses were favoured as the plant types suitable for shelterbelts. The most common plants used for shelter were pines (72%), flax (66%), poplars (47%) and macrocarpa (45%).

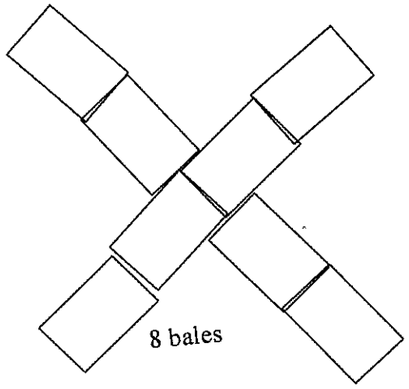
Some consistent trends were seen in the ratings by Farmers of the likelihood of ewes sheltering from different weather conditions. In general, ewes with young lambs (0 – 3 days) were more likely to seek shelter than ewes with older lambs; this trend was seen for all weather types (wind, cold temperatures, rain and storm conditions). Shorn ewes were rated as more likely to seek shelter than woolly ewes.

Farmers research suggestions revealed a desire for more information on the types of plants for shelter and on the most cost effective way of establishing them. Farmers were also interested in artificial shelter (grass bales, lambing, sheds etc.). Temporary shelter was seen as suiting most farmers who could either not wait for trees to grow or who do not wish to make a long term investment in trees.

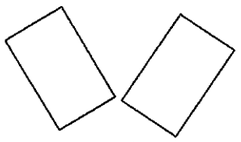
A study was then carried out on six farms where a paddock was divided in two, with one side being provided with shelter and the other not. Each paddock was approximately 5 Ha in size and stocked with 185 ewes (note a much heavier stocking rate compared to the Falklands), for a period of 30 days over lambing. The shelter consisted of hay bales placed on their sides and in three forms, and aligned facing north.



7 bales



8 bales



2 bales

In addition to the hay bale shelters, two further types of shelter were provided : plastic half-barrels (0.4m high, 0.5m long) and plastic tents (3m long x 2m deep).

All the paddocks were inspected by the farmer every day and both the position of the sheep and prevailing weather conditions recorded.

In summary the results were somewhat surprising in the **X** - shaped shelter had the highest use and the barrel the least. The tents, despite being bright orange and tending to flap in the wind, were used by both ewes and lambs on rainy days, indicating acceptance of a novel artificial shelter type. A significant proportion (35-40%) of newborn lambs were observed within shelter. The least used shelters, no matter which type, were near roads, human activity and paddock ends.

This study provided some new information on how and where shelter should be provided, and further studies on comparative benefits are underway.



## A LAMB TRIAL

***By Sean Miller***

What are the likely markets for lamb produced by the current sheep population in the Falklands? This is another of those *How long is a piece of string(?)* questions, answerable only when the abattoir is in place, markets are sought, and animal (and meat quality) is known. A subject we can gain some knowledge on in advance of the abattoir is the type of carcass we can expect to produce from local lambs (of various breeds) if they are fed to slaughter on high quality finishing pastures.

Since we have a body of high quality feed built up at Brenton Loch at the moment, it is an opportune time to grow out some local lambs and establish what they are likely to be like when they are finished on high quality feed. The answers from this exercise will help us resolve whether it is really necessary to finish lambs on good feed, what the 'best level' is that we can achieve, and should we be looking at specific meat sires?

An ideal method to use for this exercise is the same as that we've used for the wether trial. Farmers who are interested in knowing what quality their lambs are likely to be under a high quality finishing system can put up groups of lambs and we'll grow them out to slaughter weights, slaughter them and take some fundamental measurements of carcass quality.

At this stage, I would like to hear from farmers who are keen to get involved. A group of 15 wether lambs (weighing 15-20 kg or thereabouts) is all that are needed for the trial. We would envisage getting underway in full during March (aiming for a May slaughter date), so those farmers on the West can aim to send lambs over on the ferry crossing coinciding with the Ram sale in mid-March. For farms on the East, we'll come and pick up the lambs, and those on the West we'll pick up the Byron Marine freight charge.

So give me a call and get involved.

## RECIPES

***From Mary Henrickson***

### Meat Loaf

2lb Lean Raw Minced Beef
8ozs Sausage Meat
8ozs Fresh White Breadcrumbs
1 Large Onion Finely Chopped
1 Tablespoon Worcester Sauce
2 Tablespoons Tomato Ketchup
1 Teaspoon Mixed Herbs
1 Tablespoon Chopped Parsley
2 Teaspoons made English Mustard
Salt & Freshly Ground Pepper
3 Eggs Beaten

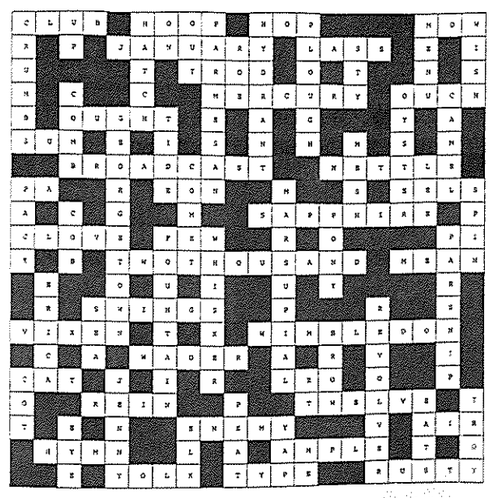
Place all ingredients except eggs in a large bowl and mix thoroughly. Stir the beaten eggs into the meat mixture. Pack the mixture into 2 foil lined, 2lb loaf tins. Cook lightly covered for 1 hr. 190°C, 375°F or Gas Mark 5.

### Farmers Wife Omelette

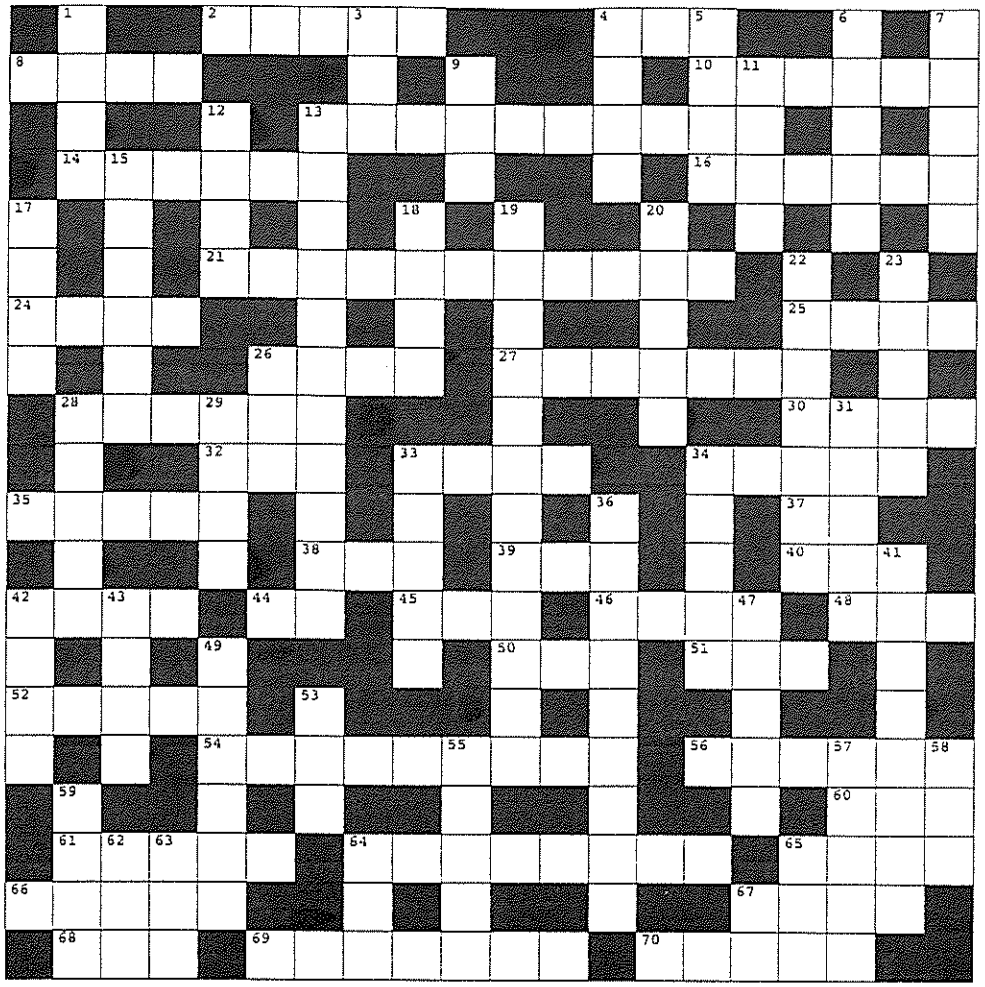
1 Large Onion
2 Tomatoes (peeled)
1oz Macaroni (small shapes)
4 Rashers Streaky Bacon
1oz Butter
4 Eggs
Salt & Pepper
4 Tablespoons Peas (cooked)

Peel and chop onion, peel and roughly chop tomatoes, cook macaroni as directed on packet, grill bacon until crisp. Fry onion in the butter until golden, whisk eggs with 2 tablespoons cold water and season to taste, pour over the onion. Sprinkle over the peas chopped tomatoes and macaroni. Cook gently, stirring the centre and loosening the edges with a palette knife until set. Put under a hot grill for 1 minute. Serve in quarters, each one topped with a crisp slice of bacon.

**ANSWERS TO LAST MONTH'S CROSSWORD**



FEBRUARY



FEBRUARY

ACROSS

2. IRISH LAKE
4. FISH EGGS
8. JUMPING PARASITE
10. GRANDE, RIDGE, ETC
13. ANTIRRHINUM FLOWER
14. RED GEMSTONE
16. LEARNING PLACE
21. JUMPING INSECT
24. GROUP WORKING OR PLAYING TOGETHER
25. MAN, WHITE, SKYE, FOR EXAMPLE
26. EYE WETTER
27. BLOOD THIRSTY COUNT
28. PICNIC BOX
30. SPICE FROM NUTMEG
32. FINISH
33. RIVER EDGE
34. TIMEPIECE
35. SLUG IN A HOUSE
37. DECLINING OR DEFIANT ANSWER
38. MOTOR VEHICLE
39. TELL UNTRUTHS
40. NOT LACTATING
42. SONG OF PRAISE
44. SHOOT OUT CORRAL
45. GRAIN USED IN WHISKEY
46. HORSE STEERING DEVICE
48. FISH CATCHER
50. TREE KILLED BY DUTCH DISEASE
51. MAN'S BEST FRIEND
52. SHRED CHEESE
54. HEBE PLANT
56. RINGS OR SPOT MARKS ON A HORSE
60. PREPARE A DINGHY FOR SAILING
61. HUMPED MAMMAL
64. BAR B Q FUEL
65. TUNE WITH WORDS
66. BERRY INGREDIENT OF TARTARE SAUCE
67. MANURE
68. NOT USED
69. NECK, GIZZARD, HEART, ETC.
70. INCORRECT

DOWN

1. WHIP
3. FIREARM
4. STRAWBERRY OR BLUE HORSE
5. GREEK GOD OF LOVE
6. ICE CREAM SPOON
7. LOWER LEG JOINT
9. WATCH SNEAKILY
11. IMPERIAL MEASURE
12. COSY
13. FLIGHTLESS BIRD (7,4)
15. SPANISH FLEET
17. LIGHT FLYING TOY
18. RUSSIAN EMPEROR
19. JASON'S SHIP (OR JEROME'S)
20. FURRY FRUIT
22. 60th WEDDING ANNIVERSARY
23. GROUP OF SHEEP
26. NUMBER OF BOWLING PINS
28. OFFSPRING OF SHE-ASS AND STALLION
29. HIDE
31. OAK SEED
33. FRUIT
34. ROMAN GOD OF LOVE
36. BRIGHT RED COLOUR
41. ANIMAL AGED BETWEEN 12 MONTHS AND 2 YEARS
42. VERY BIG
43. WATERY CASTLE PROTECTION
47. WANDERER
49. COURT ENTERTAINER
53. MARRIED
55. SEA MAMMAL
57. PART OF A FORK
58. POULTRY PRODUCT
59. LOOK OVER QUICKLY
62. PRIMATE
63. CAT SOUND
64. TYPE OF WELSH HORSE
65. EARTH TRAVELS ROUND IT
67. PERFORM TASK

# The Wool Press

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***All the regular features and more!***


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**OPEN DAY & RAM SALE**
**BRENTON LOCH & SALADERO**
**&**
**WOOL MARKET REPORT**
*By Doug Cartridge*

**ORGANIC AGRICULTURE**
*By Robert Hall*

**ROCK PHOSPHATE**
*By Bob Reid*

**LEGUMES FOR BARE AREA**
**&**
**LOTUS – Fancy any of this?**
**&**
**PHOSPHORUS: Clovers love it**
*By David Parsons*

**OLD BOOT OR TENDER MEAT?**
*By Jeremy Challacombe*

**CAMP BURNING – DRAFT CODE OF PRACTICE**
*By Tom Eggeling & Aidan Kerr*

**MENINGITIS VACCINE**
*By Dr Roger Diggle*

**H.R.H. PRINCESS ALEXANDRA'S VISIT TO FITZROY**

## EDITORIAL

Here I am, back from Chile after a good two weeks holiday. It was quite a relief to feel the cool wind and a temperature which agreed with me, as the heat was in the 30's every day. I now know I could never live in that.

As most of you are aware, the Open Day and Ram Sale are on March 21st and 22nd. Doug has written all the details on the next page of this Wool Press, whilst I'm waiting by the telephone for anyone who would like to book a berth or transport in and out of Stanley, or would just like more information. Give me a call!

I still have a limited amount of booklets on Guildlines for Shelterbelt Planting in the Falklands, costing £5.00. If anyone would like one, please send either £5.00 or a cheque made out to UKFIT then I will send you a booklet.

For the purpose of Farming Statistics, could farmers let me know if you are going on holiday this year

Hope everyone is well refreshed after a good week of sports. We hope Dae Peck will soon be back on her feet again soon!


### THIS MONTHS CONTRIBUTORS

| | | | |
|---|---|---|---|
| Bob Reid | Director of Agriculture | Tom Eggeling | Environmental Planning |
| Jeremy Challacombe | Beef Specialist | Doug Cartridge | Wool Advisor |
| Dr Diggle | Medical Officer KEMH | David Parsons | LegumeAgronomist |
| Aidan Kerr | Snr. Scientist | Robert Hall | Falkland Wool Growers |



# OPEN DAY
# BRENTON LOCH AND SALADERO
# 21st MARCH

**Please be at the Cattle yards at 11am prompt.**

**Everyone one is welcome to come and join in on our Open Day at Brenton Loch and Saladero.**

**We will be showing you crops, grasses, legumes, cattle, sheep, goats, trees, fencing, machinery, BBQ and much, much more.**

***Please contact Charlene for a berth on the Tamar FI and transport in and out of Stanley.***

**Come and have a great day out with the Department of Agriculture.**

# RAM SALE 22nd MARCH

**Sale Venue:** Saladero shearing shed
**Start Time:** 12:00 Noon

**On offer approximately**
101 Polwarth rams born 1998
42 Polwarth rams born 1997
6 Comeback rams born 1997
4 ex-stud Polwarth sires
A selection of surplus mixed aged Polwarth wethers

50 Corriedale rams born 1998

- All rams to be sold under the 'Helmsman' auction system
- A reserve price of £10 per head on all rams sold, no rams will be sold for less than this reserve price.
- To assist with cashflow, final payment for all purchases must be made by 15/6/00.
- Purchasers buying 10 or more rams will receive a 10% discount.

**Polwarths:**

All Polwarth rams offered for sale this year are well-grown clean faced quality sheep. Given the recent surge in international fine wool prices, those of you dedicated to producing high fleece weight high value wool should seriously consider using more of these top quality genetics. Compare the Saladero net wool value (before freight & shearing costs) per head shorn of **£5.75** with the national average of **£3.05**. Given this comparison;

- *Average farm net wool income from 5000 sheep would be* ***£15,250***
- *If this same sized farm was producing wool equivalent to the Polwarth National stud flock, then net wool income would have been £28,750 or an increase of £13,500.*

**Aim to increase your farm wool income by 89%, use NSF Polwarth rams**

- The argument that lambing % is low from Polwarths doesn't wash – 1999 72%
- The argument that Saladero is under stocked doesn't wash – 1998/99 1.2DSE per hectare (2.1 acres per wether equivalent)
- The argument that Polwarth lambs are light at weaning doesn't wash – Feb 2000 28kgs
- The argument that death rates are high in Polwarths doesn't wash – 1997-2000 less than 3% p.a.
- The argument that the sheep at Saladero are pampered doesn't wash – no supplements to young sheep for 3 years.
- What else can you argue???

This year sees the first of the progeny out of the locally purchased ewes, approximately ½ of the rams born 1998 are out of ewes purchased from six Falkland Island farms. These rams are sired by the best rams in the islands out of screened top producing ewes. If you want the local hardiness with good quality wool, best you take a look on the 22nd March.

**Corriedales:**

These 50 rams have been randomly selected from the top 100 rams available from the Corriedale stud flock at Goose Green. They have come from a group of 450 ram lambs weaned and will make most shearers eyes water when fully grown. They are clean faced, strong boned, free moving sheep, that will produce excellent dual purpose breeding stock. Their wool is good quality medium micron with excellent crimp and bulk. If you are optimistic about the abattoir and don't wish to produce really fine wool then these are the answer. There is a wide variation of micron available ranging from 21 to 27 so there should be one or two there for you.

Once again Byron Marine have kindly offered to make a ferry crossing from Port Howard to Hope Place on 21st and return 22nd March, so those of you planning to travel from the West please contact Charlene Rowland at the Department of Agriculture to book your berth and transport to Stanley and back on the following day. (Hopefully there will be room on the return voyage to take your sheep back to Port Howard). Those travelling from the east shouldn't get lost, as plenty of signs will once again mark the track. There will be a complementary BBQ supplied for a snack on both days. If you have any queries regarding the sale please contact either Charlene Rowland or Doug Cartridge.

# ORGANIC AGRICULTURE

***By Robert H B Hall***

It has been recognised for a decade or more that the traditional Falkland Islands farm would have to make very few adjustments to achieve organic accreditation.

World-wide demand for organic food is rapidly increasing amongst more affluent consumers, with significant markets for organic food having developed in Europe over the last couple of years. Various food issues (GM foods, BSE etc) have encouraged the demand for organic foods during this period: super-markets with organic sections and the home delivery of organic boxes have both developed in Britain. Demand for organic food currently exceeds supply, allowing premiums to increase. Today Falkland Wool Growers Ltd could develop niche export markets for any volume of high quality organic food products from the Falkland Islands be they beef, fish, geese, lamb, reindeer, shell fish or vegetables.

There are also outlets for organic wool however they tend to be very small, for example Falkland Wool Growers Ltd were contacted two days ago for a bale of organic wool and quite large organic users tend only to use a few of tonnes of wool per annum. It may be quite possible to flood the organic wool market with supplies exceeding demand. Nonetheless the requirements of these potential customers are increasing and encouraged by the development of organic cotton.

In the past, justifying the costs of an organic accreditation scheme on wool alone was debatable. With Falkland Islands Government assisting farm diversification, the availability of rock phosphate, legume research and the construction of an EU standard abattoir the need for an organic accreditation scheme is obvious. Going organic could be a diversification in itself for some farms and it may be feasible for single enterprises or part holdings to become organic? Initially a couple of farms and enterprises could become organic to test the idea or with slightly more risk it could be undertaken on a larger scale.

The establishment of an organic accreditation scheme for the Falkland Islands is pressing for a number of reasons:

- It takes about two years for farms to go through the organic registration process to become fully organic.
- Organic farm numbers are increasing in Europe and elsewhere and are already establishing their competitive credentials and outlets.
- If Falkland Islands' farm diversification enterprises are to succeed as exports they need every premia going including organic authentication as part of their marketing strategy. Ideally they should be organic from the outset, two years hence.
- The markets Falkland Wool Growers Ltd have identified for organic produce cannot be pursued much further without some real exportable organic produce available.

**Cost:** Benefit analysis of an organic accreditation scheme is always likely to be difficult due to the "chicken and egg" problems surrounding valuation of the likely premium, however as part of an integrated push for diversification schemes and the new abattoir, the case for establishment of an organic accreditation scheme for the Falkland Islands is strong and should be established as soon and as simply as possible.

## ROCK PHOSPHATE

*By Bob Reid*

***What is it?*** It's a rock which contains a high level of phosphorus which once mined and crushed can be used as a fertilizer.

***Where does it come from?*** There are many different kinds of rock which contains phosphorus and most were formed in a similar manner to coal and oil. Most of it has precipitated out of shallow tropical seas millions of years ago and the deposits were formed through volcanic action, whilst others (the best) are calcined guano.

***Which part of the World?*** Quite literally rock phosphates are found in every continent. The best known mines (usually open-cast) are in Morocco, Tunisia, Egypt, USA, Chile and Peru.

***What's the make up?*** It varies a lot but the best rock phosphates contain between 8-12½ phosphorus (P), usually 20-30% calcium (Ca) and 1-4% sulpher (S).

***How does it affect plants?*** All plants require phosphorus to grow, especially if they are to grow productively. This is especially true of legumes (clover, lotus, lupins). Falkland Islands soils are grossly deficient in phosphorus and without it we will not be able to improve our pastures.

***How does it affect animals?*** For most of the year sheep and cattle in the Falklands are deficient in phosphorus. In some areas it is so bad that cattle have been seen to chew old bones. The plants that have rock phosphate applied accumulate enough phosphorus to satisfy all the requirements of an animal. This will be particularly true if the phosphate pasture is fed to young stock (lambs and hoggets) as this will ensure that they develop strong bones and firm muscle.

***How does it work?*** Rock phosphate releases its "goodies" only in acid soil and the rate of release depends on its content and degree of fineness. For once our acid soil is an advantage and once applied the phosphorus will slowly feed our pastures for as much as seven years without a top-up.

***How much do I apply?*** Again this will vary on where you want to apply it (that is how much phosphorus is already in your chosen site) and what you want to grow. Old penguin points will need a lot less than a sour whitegrass flat!! However, in most situations work on 250 – 300 kgs/ha.

***When?*** Anytime, but probably best in autumn as that allows about 4 months gradual release of nutrients ready for when the plants start to grow in the spring.

***Where can I see it in use?*** Come to the Department of Agriculture's (DoA) Open Day at Brenton Loch/Saladero and see the effect for yourself. If you're on the West then go and talk to Danny Donnelly as he is starting to get interesting results.

***Still Confused!!!*** Give us a call at the DoA office and we will help where we can. Remember the current shipment is only the start, more will come over the next seven years.

**Over the next month or so I will be coming around to talk to Farmer Groups about the phosphate and what it means to the farming community - try to come along.**

### FROM SUSIE HANSEN
### MAIN POINT FARM

*People may be interested to take a look at the Dodson and Horrell web site and see all the different types of horse food available for various requirements. Also dog food.* www.dodsonandhorrellltd.com *We have some in stock most of the time (at Hill Cove). However, we can do special orders at any time. Contact us for further details and prices.*

Telephone: 41008, fax: 41009 or e.mail: shansen@horizon.co.fk

## WILLOW AND POPLAR AS A FEED SUPPLEMENT FOR SHEEP & CATTLE

**Apparently, an established tree on a good site will provide enough foliage to feed 50 ewes for a day during summer. Massey researchers in New Zealand have found that feeding willow and poplar foliage can result in improved wool growth, reduced dags and less fly strike. They have also been developing techniques to improve the growing and feeding of fodder trees.**

### JOKE

A woman named Shirley was from Beverly Hills. One day, she had a heart attack and was taken to Cedars Sinai Hospital. While on the operating table, she has a near-death experience. She saw God and asked, *"Is this it?"* God said, *"No, you have another 30 – 40 years to live."*
Upon her recovery, she decided to stay in hospital and have collagen shots, cheek implants, and a face lift, liposuction and breast augmentation. She even has someone dye her hair.
She figured since she had another 30 to 40 years, she might as well make the most of it.
She walked out of Cedars Sinai lobby after the last operation and was killed by an ambulance speeding up to the hospital. She arrived in front of God and said, *"I thought you said I had another 30 to 40 years?"* God replied, *"Shirley! I didn't recognise you!"*

## ANTIFREEZE TIP

A combination of global warming and poor farm product prices can encourge risk taking in the antifreeze department. Yet the damage caused by frost to an engine is just enormous in comparison to the price of prevention.

Cheap antifreeze is usually based on methanol while the real stuff is ethylene glycol. Look for the BS6580: 1992 mark. Good antifreeze has corrosion inhibitors included.

The amount needed depends on the level of frost you anticipate.

| % antifreeze in water | Freezing point °C |
|---|---|
| 25 | -14 |
| 33 | -17 |
| 40 | -14 |
| 50 | -36 |

Tractors which are stood out in the wind will get a lot colder than those parked in a shed. Only a weather expert will be able to tell you the likelihood of these extreme temperatures.

# LEGUMES FOR BARE AREAS

*By David Parsons*

Because of their ability to produce their own nitrogen, legumes can be used successfully to colonize bare or eroded areas that are often low in nutrients.

Three sites were chosen as representative of bare areas in the Falklands:

| Soil Type | Location | pH |
|---|---|---|
| Bare Sand | Cape Pembroke | 4.2 |
| Eroded Peat (ex Tussac) | Cape Pembroke | 3.8 |
| Bare clay | Bertha's Beach | 5.4 |

- The areas were prepared and fenced in the Winter of 1998.
- Plants were grown in the polytunnel and inoculated with the appropriate Rhizobia (bacteria).
- The plants were transplanted as seedlings in the Spring of 1998
- The plots were fertilised in Spring 1998 with Rock phosphate (30 kg P/ha) and with a small amount of Superphosphate (10 kg P/ha).

The plots were not intensively studied, rather the attitude was "Let's see what grows and what doesn't". Shortly after the planting, and before the plants had time to establish themselves, the Eroded Peat plots at Cape Pembroke were subjected to strong winds and hail, and few plants survived. The plants at the other sites were less exposed to the elements. The most successful plants at each of the sites are listed below.

**Bare Sand - Cape Pembroke**

| | |
|---|---|
| Strand Lupin | (*Lupinus variicolor*) |
| Tree Lupin | (*Lupinus arboreus*) |
| Pine Lupin | (*Lupinus albicaulis*) |
| Caucasian Clover | (*Trifolium ambiguum*) |
| Hybrid Serradella | (*Ornithopus X*) |

**Eroded Peat - Cape Pembroke**

| | |
|---|---|
| White Clover | (*Trifolium repens*) |

**Bare Clay - Bertha's Beach**

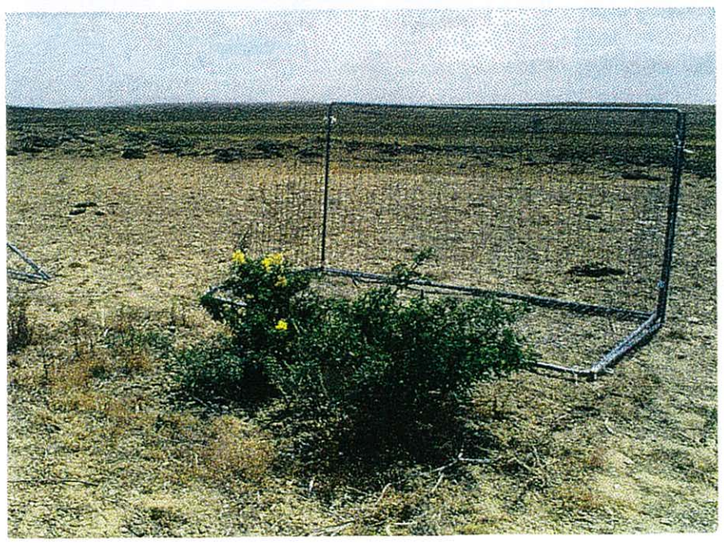
| | |
|---|---|
| Lotus | (*Lotus uliginosus*) |
| Tree Lupin | (*Lupinus arboreus*) |

These plots provide encouragement for future efforts at re-vegetation of bare areas, whether peat, sand or clay, and show that there are legumes available that are able to grow in these soil conditions. For any effort at revegetation on a large scale, the following points would need to be considered:

- Availability of the appropriate seed
- Fertiliser application (legumes require a small amount of phosphorus)
- Exclusion from stock (fencing)
- Method of sowing – For areas such as the clay patch at Bertha's Beach and the eroded peat area at Cape Pembroke, a seed drill would be well suited.

Pine Lupin
Cape Pembroke

Lotus
Bertha's Beach



Tree Lupin
Bertha's Beach

# H.R.H. PRINCESS ALEXANDRA'S VISIT TO FITZROY

**Aidan, Tim (Bonner), Bob and David were all involved with H.R.H. Princess Alexandra's visit to the small DoA and United Kingdom Falkland Islands Trust (UKFIT) plantation and the DoA legume trials at Fitzroy.**

**Her visit on 3rd February coincided with some calm and sunny weather. H.R.H. seemed impressed with the excellent growth of the Lodgepole pines, originally planted by UKFIT about 1990. The site has been well managed by DoA since 1995. She also inspected the nearby plots of lupins and lotus where David and Bob described their promising results.**

**This visit of the Princess was a very successful one and we were very proud to have shown her some of the work that we and UKFIT have done together.**

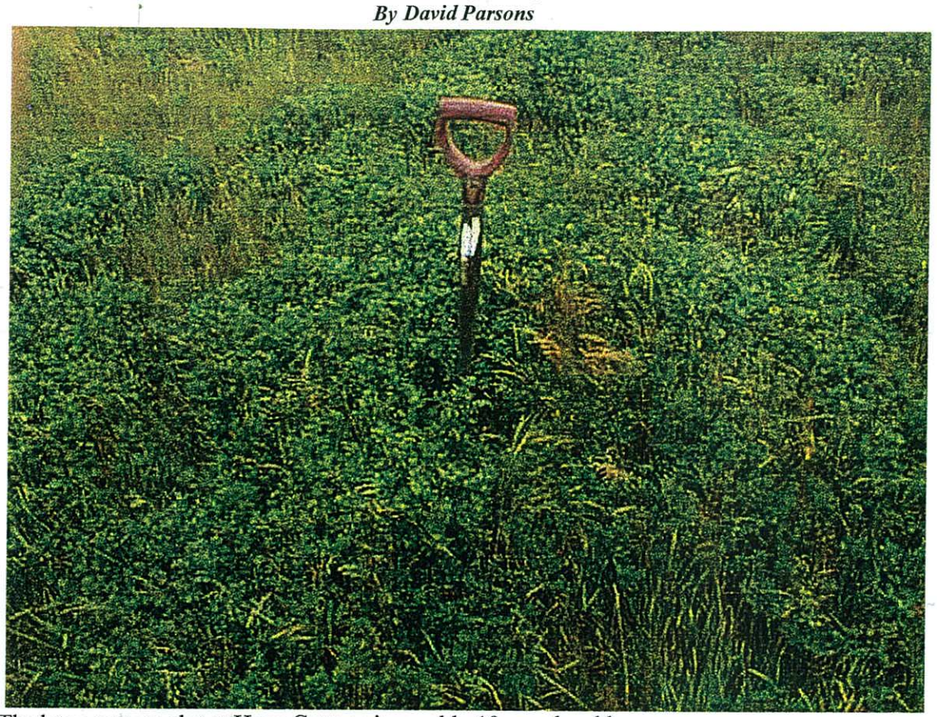
***H.R.H the Princess Alexandra at the UKFIT tree plantation with H.E. the Governor Mr Lamont, Bob Reid, Aidan Kerr and Tim Miller.***
**(Photos taken by Tim Bonner)**

## PHOSPHORUS: Clovers love it

- These pictures were taken from a demonstration plot at Mt Kent farm.
- On the left is clover sown with phosphorus.
- On the right (a few metres away) is clover with no phosphorus added at sowing.
- Neither of the plots received any nitrogen fertiliser.
- The clover growth is more vigorous with the added phosphorus.
- In addition the grass in the plot on the left is greener and more vigorous, due to nitrogen from the clover.

# LOTUS – Fancy any of this?

*By David Parsons*



The lotus pasture plot at Hope Cottage is roughly 18 months old.

- The reseed was sown with grass in the Autumn of 1998
- In Spring 1998, a small area (20m by 20m) was harrowed to temporarily remove some of the grass. Lotus seed was spread on the surface by hand, the area was fertilised, and rolled.
- During the summer of 1998-9, the plants grew but remained quite small.
- The plants were observed to spread underground by rhizomes during the Autumn of 1999.
- During the summer of 1999-2000, the plants grew vigorously.

This small demonstration plot agrees with recommendations that if lotus is looked after in its establishment year then vigorous growth is encouraged in subsequent years.

**How much does it cost?**
In total, the cost of seed and fertiliser is less than £90 per hectare (contact me if you want more details). There are other costs associated with time and fuel, however these will depend on establishment methods. We are looking at methods of establishing lotus that require the minimum input of time and money. There are other points to remember when weighing up the cost of establishing such a pasture:

- The rock phosphate will become available in the soil over a period of 3-5 years (or more), and so fertilising each year is not necessary
- The nitrogen fixed by the lotus means a nutritious feed, and better growth from the grasses around.
- The expected life of the pasture is 10+ years. In reality if it is fertilised regularly and grazing is managed sensibly, the life should be a lot longer.

# WOOL MARKET REPORT.

*Doug Cartridge; Wool Advisor*

**For the week ending 25th February 2000**

**World Markets:**

The Australian EMI closed down 2 cents this week after starting the week strongly with a Newcastle offering in Sydney. Fine wool again surged ahead early in the week but had eased back a little by the end of the weeks sales. Some of the extra-fine values are now at their highest level for eight years and expectations are that price levels will hold for these types for the rest of the season.

The South African market edged up slightly compared to two weeks ago with the indicator gaining 1%. Fine wool was keenly sought after while coarser wool was selling up to 6% dearer than equivalent Australian types.

The New Zealand Christchurch sale saw good demand for the large offering of mainly crossbred wool. The strong indicator closed up 6 cents while medium halfbred wool values were generally unchanged.

Italian spinners, Loro Piana have purchased the finest ultra-fine bale of merino wool produced in Australia for 82,000 cents per kilogram. The average micron of the bale was 13.2 and was shorn from 4-year-old housed wethers.

**Analysis:**

A relatively good tone was reported at international sales considering the falling off of supply of super fine wool and the increasing level of coarser wool being offered. The current outlook is generally positive for the rest of the season with price levels for mid micron wool being largely governed by Chinese purchasing levels in conjunction with international currency levels. The recent weakening of the Australian and New Zealand dollars does not help the competitiveness of Falkland wool in the international market place.

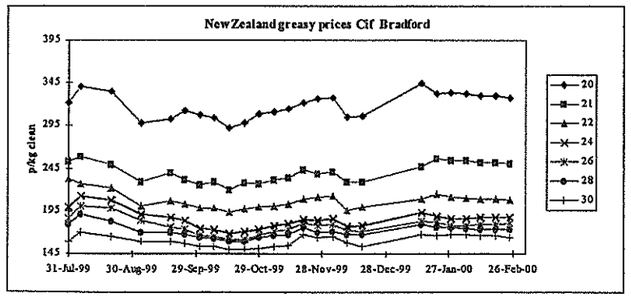
The Woolmark Company has reported a major increase in demand for mid-micron wool from Korea. The Korean demand for 21 to 23 micron wool increased by 73% during the first six months of the 1999/00-selling season compared to the same period in 1998/99. This, in contrast to an increase of just 6% for 24 to 27 micron and a decline of 74% for 28 micron and coarser, is the result of a major increase in demand for knitwear and blended casual garments produced from 20 to 23 micron wool. In addition, the recent high prices for wool of 19 micron and finer has resulted in some demand shift down the microns where prices are still at modest levels.

The creation of the "Super Sheep" has moved a step closer with the detection and isolation of genes required for high fleece weight. The identification of the genetic markers for high and low fleece weights is expected to help breeders speed selection for sheep with large wool cuts, although commercial trials of the concept are still three years away.

NZ Wool CIF Bradford (clean p/kg)

| Micron | p/kg clean | Micron | p/kg clean |
|---|---|---|---|
| 20 | 327 | 27 | 175 |
| 21 | 250 | 28 | 173 |
| 22 | 208 | 29 | 168 |
| 23 | 193 | 30 | 164 |
| 24 | 188 | 31 | 157 |
| 25 | 185 | 32 | 154 |
| 26 | 180 | 33 | 151 |

Anyone wishing to receive this report by e-mail please contact me. - *Doug Cartridge*




# OLD BOOTS OR TENDER MEAT?

***By Jeremy Challacombe***

Do you like nice tender meat (yes, with a lot of flavour too!) or do you prefer chewing on a hard bit of leather?

One of the things that meat producers often forget is that they are the first chain in a service industry, the food industry. The end point is the plate, the consumer who eats the product. It is the consumer who dictates to the producer such things as type, flavour, quality and the like of meat. If the consumer has a particular desire for something and the producer doesn't provide that something, then the consumer will go elsewhere.

We are no different here in the Falkland Islands from producers and consumers throughout the world. The chain is still the same and it is the consumers who dictate to the producers.

There are many aspects of meat quality that are important from a consumers' perspective. Colour, presentation, flavour are but a few. One of the important factors is tenderness. Whilst we on our own farms may be prepared to be less fussy in this regard, those who are paying for their meat, be it at a butchers shop or a restaurant want value for money. Tender meat comes into this category and so it is beholden on us producers to meet this need. If we ignore it, it will only be us who suffers.

Enough of the introduction, the main thrust of this article is to look at why beef is sometimes tough, and how we can avoid toughness and provide tender beef to the consumer.

## What causes toughness?

There are three major factors that can cause toughness:

- Age
- pH
- Cold shortening

### 1. Age

Older animals yield tougher meat than younger ones. Much of the world beef trade demands meat from animals under three years of age. Meat from older animals is generally used for processing in hamburgers, sausages and the like. Some cuts are an exception such as fillet and striploin but in the main, the rest of the carcass of an older beast is less tender.

### 2. pH

pH refers to unfavourable acidity in the meat. A rise in pH results from any one of a number of causes such as stress, disease, strenuous muscle contractions prior to slaughter. Animals which are stirred up prior to slaughter generally have dark meat which has a tendency to be tough.

### 3. Cold shortening

This refers to muscle fibre contractions that occur after slaughter during chilling. A major cause is rapid chilling prior to carcass setting. This is more noticeable in light weight and lean animals.

## What can we do about it?

a. Reduce the age of beef sent to the market. We should aim to sell beef animals at around three years of age. The ideal domestic beef carcass in Australia is about 210kg dressed weight. This equates to a live weight of around 400kg To achieve this weight in three years, an animal must put on about 400 grams per day.

b. Manage the animals correctly. Beef farming has progressed a long way from the cowboy rodeo days. When animals get frightened, they get stirred up. Adrenaline and other hormones flow around their body and the muscles tighten up. There is only one way to work cattle and that is quietly (cattle handling will be the subject of another article). Make sure the animal is quiet and not stirred up prior to slaughter

c. Ensure that animals are finished prior to slaughter, that they are of an appropriate weight and body condition. This means knowing your animals. In any one group, some may be ready for slaughter and some may need a bit more finishing and require more time.

d. After slaughter, meat can be electrically stimulated to speed up rigor mortis and muscle set prior to chilling. Meat can be held in a chilled state for about 3.5 weeks at 0 degrees C and meat can be mechanically tenderized at the abattoirs.

e. Meat can be marinated prior to cooking. There are a number of commercially prepared marinades available. Cooking time and temperature also have a major impact on the toughness or tenderness of beef.

## Conclusion

There are a number of factors that result in tough beef. The processor and the consumer have a role to play in this regard.

The farmer, however, can address many of these by paying attention to age and condition of animals and by ensuring the animals are managed in an appropriately quiet manner, especially prior to slaughter.

Now that we know what we have to do to produce a nice tender mouth watering piece of steak, perhaps you would like to try the following to savour it:

*Four portions of rump steak cut 4 cm thick; 3 tablespoons of peppercorns; 2 tablespoons of butter; ½ teaspoon of Worcestershire sauce; squeeze of lemon juice, 2 tablespoons of brandy, ¼ cup of cream and salt to taste.*

Leave the steak at room temperature for 30 minutes, Crack the peppercorns by beating with a mallet and coat the steak with cracked pepper, pressing it well in. Heat the butter in a frying pan and add the steaks. Cook over high heat one minute per side to seal the juices. Reduce the heat and continue to cook for 4 to 6 minutes each side until done to taste. Sprinkle the steak with salt, Worcestershire sauce and lemon juice. Add brandy to the pan, warm and ignite. When the flames die down, remove the steaks and keep warm. Swirl cream into the pan juices, heat and pour over steaks. Serve immediately. Settle down with a cool beer or rich red wine and enjoy!

Thanks to Geoff Stromm, Queensland DPI for this delightful recipe.

# (For Discussion)

## CAMP BURNING – DRAFT CODE OF PRACTICE

**Introduction**

The amount of scientific information gained from local agronomic research into the burning of white grass camp is limited and no research has been carried out into the effect of this practice on birds in the Falkland Islands.

**Report**

Effect on Birds

Although no research has been carried out in the Falkland Islands on the effect on birds of the burning of white grass camp, all of these birds are ground nesting and are vulnerable to this practice. Some species such as Snipe and Yellow-billed Teal may breed as early as July.

The birds most sensitive to burning are those like Snipe, which remain in the white grass camp all year and breed early in the season. Rufous-chested Dotterel and small passerines such as the Falkland Pipit and Black-throated Finch are also threatened.

These and other ground nesting birds require relatively long grass for shelter or cover and, if the sward is burnt regularly and mainly short grass prevails, a lower density of breeding birds would be expected.

Agronomic Research

Dr Jim McAdam conducted an experiment between 1975 and 1978 on the effects of an October burn on the composition and re-growth of white grass camp in Orqueta Park, Lafonia.

The main findings of his research were as follows:

- Burning removed a large proportion of the dead herbage and trash in the pasture.
- The amount of green matter in the burnt swards was less than in the unburnt swards.
- The diluting effect of dead matter and the lack of accessibility of green matter to stock in the unburnt swards made the burnt swards potentially more beneficial to grazing stock.
- Dead matter had started to accumulate in the burnt sward 18 months after it was burnt.
- Burning provided a suitable environment for the establishment of new pasture.
- Burning alone did not produce long-term improvements in pasture quality unless it was followed by management practices, which maintained the pasture in a relatively acceptable and digestible state, and hence improved pasture utilization.

**Discussion**

Controlled burning of relatively small and well-defined areas of white grass camp (both cultivated and uncultivated) for the purposes of pasture improvement is widely regarded as an acceptable and successful practice.

However, the study by Jim McAdam did not assess the effects of the burning of white grass camp on animal production or on the effects upon local bird populations, nor has this been studied since.

To date no scientific research has been undertaken on the optimum time of year to burn white grass camp for particular agricultural purposes, bearing in mind the potentially damaging effects on local bird populations.

Subsequent research by ARC and DoA has shown that where controlled burning was followed by careful intensification of stocking, or the latter alone was used, higher pasture utilisation was achieved with improved sheep and wool production.

**Best Practice**

- Burning should only be used as a land management tool to clear land of vegetation prior to re-seeding, or undertaken sparingly to prevent the accumulation of dead vegetation and the risk of accidental fire in mid-summer.
- Burning alone does not significantly improve the nutritive value of grassland or shrub heath and beneficial effects on livestock improvement have not been demonstrated.
- Ideally the burning of untreated or uncultivated land should be carried out before the start of the nesting season and certainly before the end of September because, thereafter, it poses an unnecessary threat to nesting birds and chicks and, if not properly controlled, can damage the soil and other vegetation.
- Advice on the use of burning in preparation for pasture improvement can be obtained from the Department of Agriculture.
- Advice on the potential effects of burning on wildlife can be obtained from the Environmental Planning Department and Falklands Conservation.

*COMMENTS INVITED:*

***The Department of Agriculture and the Environmental Committee invite landowners and farmers to submit comments on this dicussion document. Written submissions should be sent to either Aidan Kerr (DoA) or Tom Eggeling (Environmental Planning Officer) by 31 May 2000.***

**Clouds of dust swirling from burnt whitegrass near Hill Head, East Falkland, February 2000.**

# MENINGITIS VACCINE

***By Dr Roger Diggle***

Meningitis is an inflammation of the lining of the brain. It is a rare but serious illness.

One of the causes of meningitis is a bacterium called Meningococcus. There are different groups of meningococci; A, B & C. readers may be aware that over the last year or two there has been an increase in the number of cases of meningococcal meningitis in the United Kingdom.

Until recently there has been no satisfactory vaccine for meningococcal meningitis. There has been a vaccine that gives some short-term protection against groups A & C. This has been used for travellers to certain areas of the world where there is particularly high risk. However, a new vaccine has been developed which gives life-long immunity to group C meningococci.

We have obtained some of the new vaccine and more is on order. The normal vaccination programme will be 3 injections at 2, 3 & 4 months of age at the same time as all the other routine childhood vaccinations.

We will be conducting a catch-up programme so that all under 18s will have had a single dose of the vaccine. Over 1 year of age the body responds much better to vaccines so 1 dose is sufficient to produce life-long immunity. The catch-up programme will be as follows:

| | |
|---|---|
| **Under 1's** | The Health Visitor will give 3 doses at monthly intervals. Parents will be contacted by the Health Visitor. |
| **1 to 5 years** | The Health Visitor will give 1 dose. Parents will be contacted by the Health Visitor. |
| **5 to 16 years** | Parents will be written to and asked to give consent. Children will then be vaccinated by class at school. |
| **16 to 18 years** | You will be contacted by post and offered an appointment. 16 & 17 year olds will be asked to complete a consent form. |

As the risk of contacting meningococcal meningitis is greatest under the age of 1 and in 16 to 18 year olds they will be offered the vaccine first and others will be contacted when more supplies are available. Young adults at University, College or similar institutions are also at risk and therefore anyone in this age group who is currently in the UK will be offered the vaccine by the UK authorities.

It is a very safe vaccine and is using similar technology to the well-established HIB vaccine. Side effects are minor:

| | |
|---|---|
| **Babies** | • Some redness and swelling where the injection is given |
| **Toddlers** | • Some redness and swelling where the injection is given<br>• One in four toddlers may have disturbed sleep<br>• One in 20 toddlers may have a mild fever |
| **Pre-school children** | • About 1 in 20 may have swelling where the injection is given<br>• About 1 in 50 may have a mild fever within a few days of the vaccination |
| **Children & young people** | • About 1 in 4 may have a swelling or redness where the injection is given<br>• About 1 in 50 may have a mild temperature<br>• About 1 in 100 may have a very sore arm from the injection which may last a day or so. |

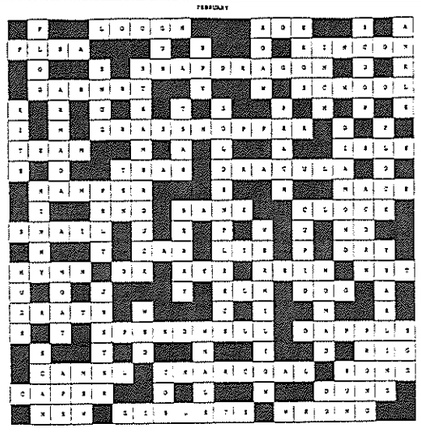
**If you have any questions about this vaccine then please contact the Health Visitor, Miranda Cheek on telephone 27418.**



**LAST MONTH'S**

**ANSWERS TO**

**THE CROSSWORD**



## RECIPES

*From Mary Henrickson*

### Fishermans' Pie

**Topping:-**
2lb potatoes
1oz butter
2 tablespoons milk or cream

**Filling:-**
1 pint milk
1lb haddock or mullet
1 onion peeled and sliced into rings
1 bay leaf
2ozs butter
2 ozs flour
Salt and pepper
4 ozs cheddar cheese

Cook the potatoes, mash while hot, and beat in butter and milk.

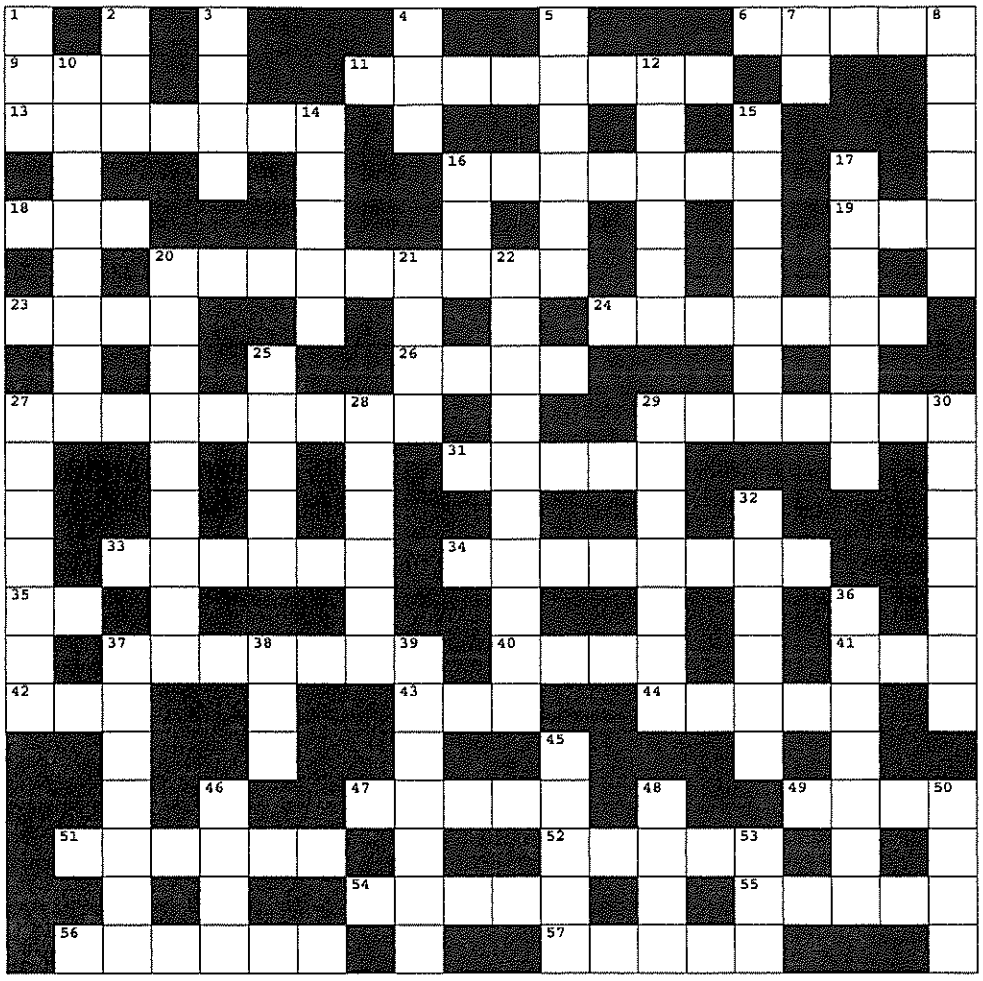
Filling:- Place milk in a saucepan add the fish onion and bay leaf and poach for 15 minutes strain off and reserve the juice discarding the onion and bay leaf. Flake the fish removing skin and bones. Melt the butter in a pan stir in the flour cook gently for one minute, stirring constantly. Remove from heart and gradually add the fish juice. Return to heat and bring to the boil stirring until the sauce thickens, add flaked fish cheese and seasoning. Turn into a buttered pie dish and cool quickly. Top with creamed potatoes and bake in a hot oven until top is brown and crisp.

### Granny's Mixed Fruit Pudding

4ozs plain flour, pinch of salt
1 teaspoon baking powder
½ teaspoon mixed spice
¼ teaspoon ground cinnamon
4ozs soft brown sugar
4ozs fresh white breadcrumbs
3ozs shredded suet
8ozs mixed dried fruit
Grated rind of 1 orange
2 eggs beaten
1 tablespoon orange marmalade
3 – 4 fluid ozs milk

Sift flour, salt, baking powder, spice and cinnamon into a bowl, stir in the sugar, breadcrumbs, dried fruit and orange rind, add the beaten eggs, marmalade and enough milk to make a soft consistency. Spoon into a 1¾ pint buttered bowl, cover with foil with a pleat in the centre. Secure foil around the rim and boil for 2½ hours.

# CROSSWORD AND CLUES



ACROSS

6. KEPT FOR GOOD LUCK
9. RAW METAL
11. CLEAR SOUP
13. WINGED HORSE
16. SHOE REPAIRER
18. BRICK CARRIER
19. GARDEN TOOL
20. THE ROCK
23. SIX BALLS
24. CAUGHT ON
26. STUFFING HERB
27. SCATTER SEED
29. BIRD OF PREY
31. TYPE OF DRUM
33. SMALL VILLAGE
34. A COLLECTION OF MONKEYS
35. PEACE-KEEPING FORCE
37. SNAKE
40. PRESSER
41. OLIVE OR CORN PERHAPS
42. CURRENT
43. TIME
44. MALE DUCK
47. SERIOUS
49. BIRD OF PEACE
51. FISHY ZODIAC SIGN
52. PROTEIN ACIDS
54. DOWN DUCK
55. AUSTRALIAN WILD DOG
56. HOUSE OF WORSHIP
57. TITLED OR GREAT IN CHARACTER

DOWN

1. JUMP ON ONE LEG
2. LOWER LIMB
3. EYE HAIR
4. OLD SHILLING
5. THIEF
7. HIS EXCELLENCY
8. FILMS
10. TYPE OF GUN
12. MOULD
14. THE BABY BIRD
15. ROY ROGERS' HORSE
16. BABY'S BED
17. BIRD THAT ROSE FROM THE ASHES
20. LARGE DOG
21. SHOEMAKERS TOOL
22. AN OBSESSION WITH ENGLISH THINGS
25. ROWING BOAT OR STYLE
27. STRANGE TRIANGLE
28. SKIN COLOUR EXPOSURE TO UV LIGHT
29. THE NETHERLANDS
30. COLD BLOODED VERTEBRATE
32. NON PROFESSIONAL PERSON
36. BARN DANCE
37. LANGUAGE OF CHILE
38. FEMALE SWAN
39. LAND TYPE
45. TAKE IN KNOWLEDGE
46. PERMANENT MARK
48. ARM OR LEG
50. WELL KNOWN PUBLIC SCHOOL
53. DEDICATED LYRICAL POEM

# The Wool Press

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**All the regular features and more!**

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**OUR VISIT TO SALADERO FARM**
*by Robin and Mandy Goodwin*

**MORE WETHER TRIAL RESULTS**
*by Sean Miller*

**A FIRST AID REFRESHER AND REMINDER**
*by Mandy McLeod*

**TAKE A SEAT!**
*by John Hobman*

**FINE WOOL POOL**
*by Doug Cartridge*

**GUANACO RESEARCH & STAATS ISLAND VISIT part 2**
**&**
**FOOD (BEEF) FOR THOUGHT**
**&**
**IDENTITY CRISIS**
*by Cameron Bell*

**WEED CONTROL ON SAUNDERS ISLAND -**
**SOME PRELIMINARY RESULTS AND DIFFICULT CHOICES**
*by Aiden Kerr*

**WEANING OF CALVES**
*by Jeremy Challacombe*

***WHAT DO I DO WITH MY ROCK PHOSPHATE?***
*by Sean Miller, David Parsons & Bob Reid*

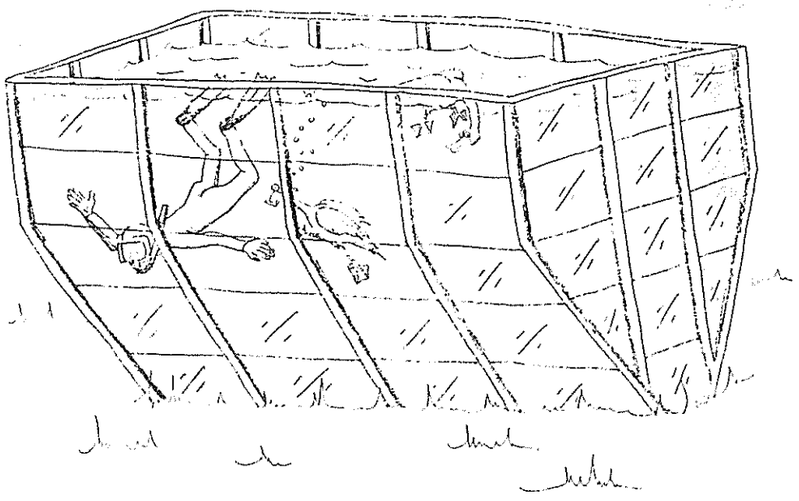
## EDITORIAL

The staff at the Department have been extremely busy this month with the erection of the glass house (hence Marie's cartoon). This glass house which is built next to the polytunnel should enable the department to be more efficient in growing plants all year around and not having to worry about the structure being ripped in strong winds.

The Open Day and Ram Sale were very popular this year. It was good to see lots of farmers who have never been to one of our displays before and hearing a lot of good comments made it worth while, after all the stress of putting it all together.

I have taken the liberty of enclosing the Livestock Annual Statistic form earlier this year. This is to enable farmers to have a good read and chew it over before the 31st May, 2000. This form may look different but really we are asking only for a little more than usual and providing extra space. With the ever- changing agricultural status it was inevitable that we had to make a new form. If anyone has trouble filling in the form, please don't hesitate to give Mandy or myself a call.

I get asked every year ***"When are the shows on in the UK".*** Well, I have photocopied a sheet of shows off the internet which I hope will be of help to you if you are planning on going to the UK for a holiday.



**"David – just come out and admit you had the plans upside down"**

**THIS MONTHS CONTRIBUTORS**

| | | | |
|---|---|---|---|
| Mr & Mrs Goodwin | Farmers, Green Field Farm | Sean Miller | Sheep Nutritionist |
| Mandy Mcleod | Farm Management & Training Officer | John Hobman | Manager, Saladero Farm |
| Doug Cartridge | Wool Advisor | Cameron Bell | Veterinary Officer |
| Jeremy Challacombe | Beef Specialist & Advisor | Aidan Kerr | Snr. Scientist |



# Fine Wool Pool

With fine wool (20 micron or less) prices currently soaring it is time to consider pooling of fine wool prior to sale.

*Every farm will have some wool that is less than 20 micron*

Due to the dramatic recovery of fine wool prices the premiums between micron categories has become huge.

**Current value (Australia)**
**17 micron - £10.00**
**18 micron - £6.30**
**19 micron - £4.75**
**20 micron - £3.05**
***Don't sell it as 23 micron at £1.65***

*How can we maximise the value of our fine wool?* ***Here's an idea!***

An FIG/FIDC sponsored pool is set up where by,

•Individual farms class out wool 20 micron or less.

•Wool is consigned to a central location for classing into different micron categories.

•Immediately after classing farms are paid, say £1.00 kg greasy for all wool considered to be 20 micron or less as a preliminary payment.

•Once all wool is classed and re-pressed lots are sold with individual farms paid out according to the quantity they supplied in each lot.

•The cost of re-classing, pressing etc will be deducted from sale proceeds.

•Cost could be in the region of 20-30p/kg, however a net increase in value of £1.50-£2.00/kg could also be expected.

•A rough initial estimate suggests that there could be more than 30,000 kilograms of 20 micron or less available.

***Should this idea be taken further?***

***Who is interested in supplying wool?***

***Please contact Doug Cartridge if you are interested.***

# MORE WETHER TRIAL RESULTS

*By Sean Miller*

As promised last month, here are the remaining results from this and last year.

| Property | Estimated fleece value (£) Highest | Lowest | Average | Ranking (on value) | Clean fleece (kg) | Fibre diameter (microns) |
|---|---|---|---|---|---|---|
| Beaver Island | 4.75 | 2.89 | 3.60 | 1st | 2.4 | 23.1 |
| Coast Ridge | 4.91 | 2.52 | 3.45 | 2nd | 2.7 | 28.2 |
| Goose Green | | | | | | |
| Ceritos | 4.77 | 2.23 | 3.03 | 7th | 2.5 | 29.4 |
| Laguna Isla | 3.82 | 2.63 | 3.16 | =3rd | 2.6 | 29.9 |
| Horseshoe Bay | 4.55 | 1.98 | 3.16 | =3rd | 2.5 | 29.0 |
| Main Point | 4.32 | 2.08 | 2.95 | 9th | 2.3 | 27.3 |
| Port Stephens | 4.62 | 1.63 | 3.00 | 8th | 2.6 | 31.0 |
| Smylies | 4.00 | 2.26 | 3.15 | 5th | 2.5 | 28.0 |
| Wreck Point | 4.38 | 2.24 | 3.08 | 6th | 2.4 | 28.1 |

Fleece values have been calculated using average prices received for Falklands' wool of each fibre diameter class during 1999.

***The 1998 results***

And this is the remainder of what happened in the first year (September 1998 to January 1999)

| Property | Wool growth rate (g/cm2/day) | Wool growth efficiency (column 1 divided by kgs of metabolic bodyweight) | Ranking 1998 | Ranking 1999 (CFW) | Fibre diameter 1998 (microns) | FD change 1998 to 1999 |
|---|---|---|---|---|---|---|
| Beaver Island | 0.468 | 25 | 8th | =7th | 21.4 | +1.7 |
| Coast Ridge | 0.615 | 42 | 6th | 1st | 25.2 | +3.0 |
| Goose Green | | | | | | |
| Ceritos | not measured | not measured | nm | =4th | | |
| Laguna Isla | 0.569 | 39 | 7th | =2nd | 26.7 | +3.2 |
| Horseshoe Bay | 0.795 | 59 | 2nd | =4th | 28.0 | +1.0 |
| Main Point | 0.731 | 59 | 3rd | 9th | 25.5 | +1.8 |
| Port Stephens | 0.642 | 43 | 5th | =2nd | 28.9 | +2.1 |
| Smylies | 0.863 | 65 | 1st | =4th | 27.1 | +0.9 |
| Wreck Point | 0.691 | 51 | 4th | =7th | 26.8 | +1.3 |

***Confused?!***

1998 was the year we started the trial. We began to get the groups of sheep together in September, and over the next 3 months we gathered together 225 wethers (9 groups of 25). Because we couldn't realistically shear the sheep at that time, and to help us fit into the regular shearing system at Goose Green (January shorn wethers) we decided to clip a small patch of wool from the mid-side of each sheep (about 10cm by 10cm and clipped on the 12th rib about 10 cm down from the backbone) to measure wool growth between September 1998 and January 1999. We also measured the area of skin from which we took the sample. This allowed us to calculated how much wool (in grams) was grown on that area of skin for a known number of days. This gives the figures *Wool growth rate (g/cm2/day)* in the 2nd table. We were then able to divide this figure by the bodyweight of the sheep to give us an idea on how efficient the sheep were at growing wool for this period. This figure is comparable to the wool growth efficiency shown in the results table for 1999 (see February Wool Press).

Unfortunately, because the groups didn't all arrive at the same time, we can't make all of the comparisons that we had hoped to make in the first year. A fact of wool growth is that it varies dramatically through the year. Both the quantity and quality of feed consumed affects the quantity of wool produced. Moreover, longer days in summer equal faster wool growth, primarily because of an increase in time spent grazing during summer, and the effects of growth hormones whose concentrations are stimulated by long hours of day-light. Thus, even though the sheep arrived at Goose Green within a 80 day period of each other, the effects of day-length and feed growth have meant that we can't really compare those groups that arrived early with those that arrived late.

In reality, we can only compare the wool growth rates of the sheep from Beaver, Coast Ridge, Port Stephens, and Laguna Isla; all of which arrived in early September. For these 4 groups, their rankings for wool growth rate per day for 1998 were Port Stephens (1st), Coast Ridge (2nd), Laguna Isla (3rd) and Beaver (4th). For 1999, the relative rankings of these 4 groups (for clean fleece growth) were Coast Ridge (1st), Port Stephens (2nd), Laguna Isla (3rd) and Beaver (4th). All in all, almost no change in their rankings between 1998 and 1999.

***Back to 1999***

Some more interesting comparisons on fleece value

- Highest value fleece £4.91 (Polwarth type)
- Lowest value £1.63 (Corriedale type)
- Difference £3.28

- Highest value Corriedale type £4.62 (Pt Stephens) = 6% less than highest Polwarth
- Highest value Polwarth x Corriedale type £4.77 (Goose Green) = 3% less than highest Polwarth
- In all groups of sheep, the highest value fleece was about twice as valuable as the lowest value fleece. In other words, there is 100% variation in the value of fleeces within each flock. Good news for making genetic progress in the future, as variation is the key to making fast genetic progress.

- The Beaver Cormos had the highest value fleece due to their much finer fibre diameter (at least 4.2 microns).

- If you exclude the Cormos, there was 50p difference between the highest and lowest average fleece values between groups of sheep (Coast Ridge versus Main Point). For a flock of 5,000 wethers this would equate to an extra £2,500 for 'best' genetics. If you include the Cormos this difference is £3,250.

- Fibre diameter increased by an average of 1.9 microns from January 1999 shearing to January 2000 shearing (biggest change 3.2 microns – Goose Green, and smallest increase 0.9 microns – Smylies).

- Size of micron 'blow-out' did not relate to the change in body weight from 1998 (arrival date) to 1999 (first shearing), or 2000 shearing.

- Size of 'blow-out' tended to be related to clean fleece weight - highest cutters had greatest increase in fibre diameter. They were the most efficient converters of feed to wool during 1999/2000.

- The rankings (wool growth and fibre diameter) did not change dramatically for properties between 1998/99 and 1999/2000, for example the finest groups in 1998/99 were still the finest in 1999/2000.

All in all, plenty to think and talk about. Let's hear your thoughts and see what happens this year.

## A FIRST AID REFRESHER and REMINDER

***By Mandy McLeod***

I know that a lot of camp residents have attended First Aid courses over the years. I also know that like me, if a situation were to arise where my assistance was needed I would probably be of little help other than to put the casualty in the recovery position and call the emergency services. That would be better than nothing, but what if the casualty wasn't breathing, or by circumstance of the incident could not be put in the recovery position?

I have been on 2 first aid courses in the last 10 years, but because I haven't had any cause to put my training into practice (and I hope I never do), I would have difficulty in remembering all that I was taught and could waste valuable time being 'flustered'. I strongly advise anyone who has not been on a First Aid course to contact the KEMH and arrange to attend one. If there are several people in your area it may be possible for a course to be arranged 'in camp'. Even if you have attended a first aid course in the past it is for the benefit of the community that you retain your skills and keep up-to-date with techniques. Camp residents live in relative isolation and it is the immediate actions of those on the scene that could save lives.

The following is just a reminder of some of the basic principles for those who have undertaken a first aid course in recent years, but is no substitution for attending a hands on First Aid training course.

In most emergency situations some basic rules apply:

- Don't panic
- Assess the situation so that you can give the correct information to the emergency services.
- Alert the emergency services so that professionals will be on the scene as soon as possible.
- Go back to the casualty. If on the ground, check to see if they are conscious by gently shaking their shoulders and shouting their name. Before touching the casualty check for a danger and ensure that you do not put yourself or anyone else in the vicinity at further risk. For example, if the casualty has been electrocuted don't end up getting electrocuted yourself (turn off the mains), or if there is a possibility of debris falling on you whilst you treat the casualty, ensure that the area is made safe first.
- If there is no response, follow the ABC (Airway, Breathing and Circulation)

**AIRWAY** – Make sure it is not blocked by false teeth, debris or the tongue. Keep the airway open by gently tilting the head back and lift the chin using the tips of 2 fingers.

**BREATHING** – Look at the chest and listen and feel at the mouth for signs of breathing. If the casualty is breathing, then place in the recovery position ensuring that the airway is kept open. If the casualty is not breathing do mouth to mouth resuscitation, holding the patient's nose closed and breathing slowly into the mouth until the chest rises (for infants, cover the mouth and nose with yours and do little breaths as they only have little lungs).

**CIRCULATION** – If the casualty has no pulse you must start chest compressions. Do 15 rapid compressions followed by 2 breaths and repeat continuously, preferably until the emergency services are on the scene. This is a much easier task with two people.

The only time you would not attempt to move a patient is if the possibility of neck injuries was evident. You should consider this in an unconscious patient or one complaining of numbness or pins and needles.

A specific knowledge of First Aid will make a real difference to casualties with major external bleeding, crushing, amputations, electrocutions, burns (both chemical and flame), poisoning or eye injuries.

***Keep up to date with your First Aid knowledge and ensure that you are not the only one in your household that knows what to do. You might be the casualty. Even a child knowing how to get help could save lives.***

## OUR VISIT TO SALADERO FARM

***By Robin and Mandy Goodwin of Green field farm***

On Wednesday 22nd March we travelled to Saladero to attend the Annual Ram sale, where we met a large number of prospective buyers from just about every corner of the Falklands. All hoping to acquire that high quality, just right ram at an affordable price.

This was out first ever visit to Saladero from Green field and we all really enjoyed it. Firstly we were very impressed at the work that has been done at Saladero and the neat erection of the electric fence systems.

I have always been a strong critic of the National Stud farm and the amount of money spent on it. But when you can actually see just where a good percentage of the funds have gone it is quite satisfying. Although the ordinary farmer would have little chance of such an establishment as they don't have the access to ready funds of that magnitude. (But we like to dream just the same).

The actual sale of the rams was very professionally carried out and even when the 24 hour power temporarily shut down, Charlene and Doug kept the bidders up to date on times remaining. I am sure Lucy pressed the wrong button on the Lap Top timer system and being what computers are, probably shut the mains off, or was it sabotage by a desperate bidder??!!

We were pleased with the final outcome of our own successful bids on the Corriedale Rams, having acquired seven of them. These graceful critters have put the remaining flock of our own rams very much to shame and makes me wonder how we have managed to get any lambs at all these past years.

Although we never managed to make it to the open day on the 21st, we did get the chance to observe the many different projects that have been going on at Brenton Loch and in particular the enormous field of swedes that are growing in what seemed very exposed areas, (quite mouth watering as well). Our son Kenton put a very good question to us, which was, "Why didn't the hares eat the swedes when they were small?". A question I could not answer, but would like to find out about. You plant something at Green Field in the open and both the hares and geese quickly eat it. What is the secret?

We reckoned that if we were not lucky enough to buy any rams, we should fill the truck up with swedes and feed to the miserable ones we have at home (having said that the swedes were probably bigger than the rams).

Seriously though, the visit was a very educational one and we will (finance permitting) be back next year to do it again.

The Agricultural Department has come in for a lot of flak in recent years and some of it from me and all. But give credit where it is due, they are getting it right now and beginning to get some interesting results in the field.

Now with the construction of the road to Saladero have been started, next year visitors will be able to access it much better and be able to come with bigger trucks to remove their stock. Also perhaps many more of the Stanley people will be able to make the journey.

For us, this days outing was one of the best we have had in a good many years.

**WANTED TO BUY**

*A crank shaft pulley, twin belt type for 24 volt, 2 ¼ petrol landrover.*

*If you can help, please contact: Nick at Salvador on telephone: 31193 or 31199 or fax: 31194*

# GUANACO RESEARCH & STAATS ISLAND VISIT PART 2

*By Cameron Bell*

During mid-November I was fortunate enough to visit Staats Island to study the resident guanaco population. I joined a research party of six, comprising three researchers (headed by professor Bill Franklin, Iowa State University) and three paying tourists. Bill has studied guanaco in South America since the 1970's and now runs paying 'holidays' whereby tourists are involved in biological studies. I had arranged the logistics for the trip, including sea transport, supplies, HF radio, etc.

The aims of the Staats Island guanaco study were to:

(i) undertake a basic investigation of the population structure;
(ii) collect tissue samples for DNA analysis to enable comparison to mainland guanaco;
(iii) make basic behaviour observations;
(iv) investigate the feasibility of capture of guanaco for transportation elsewhere; and
(v) undertake vegetation mapping of the island.

The long, narrow nature of Staats Island allowed two whole island population counts to be undertaken. These were performed by all seven people forming a line, walking the length of the island and counting all animals that passed behind. This sounds easy, however the island is over one km wide in places, often preventing us being in eyesight with the next person in line. Radio communication made this job a little easier. The count revealed a total population of 335 animals.

Animals appeared healthy and in good body condition. Only one live adult was observed with an abnormal condition – probably a dislocated hind leg. There is always a concern of inbreeding in small populations, however there was no evidence of genetic abnormalities. In general, Bill was convinced it was a healthy population from an ecological point of view, considering the population structure (numbers of adults, pregnant females, yearlings etc).

Much debate has existed over when the Staats Island guanaco give birth to their young, called chulengos. During the time of our stay, only two new-born chulengos were observed, suggesting that most births probably occur in December. Chulengos can be caught in the first few hours of life for tagging, blood sampling, etc, however after this they are on their feet and too fast to physically catch.

Although quite wary of us upon our initial arrival on Robin Lee's boat, we were able to approach the guanaco closer by the end of the visit. This corresponds with Bill Franklin's experience in South America, where after several years, guanaco at his study site could be fed out of the hand. The Staats Island animals were definitely not aggressive, as we had been forewarned by some local people (to the extent they would attack us)! This is obviously a misnomer. With the use of fencing, time and patience, Bill believes that animals could be captured and translocated to other parts of the Falkland Islands. However this would probably require someone being present on the island for a considerable amount of time. See Wool Press issue 123 (February 2000) for a discussion on the potential for farming of guanaco in the Falkland Islands.

Observations were made and samples collected during the visit, in conjunction with future research, will allow conclusions to be made on the impact that guanaco have had on the Staats Island vegetation as well as their genetic relationship to mainland guanaco.

On behalf of the research party, I would like to take this opportunity to thank Sally and Jerome Poncet for giving us permission to visit and work on Staats Island, Robin and Miles Lee and Bill Pole-Evans for getting us on and off Staats Island, and John and Stephanie Ferguson for providing further logistical support at Weddell Island.

***1. Two Adult and two juvenile guanacos.***

***2. Guanaco foot-print in sand.***

# WEED CONTROL ON SAUNDERS ISLAND – SOME PRELIMINARY RESULTS AND DIFFICULT CHOICES.

*By Aidan Kerr*

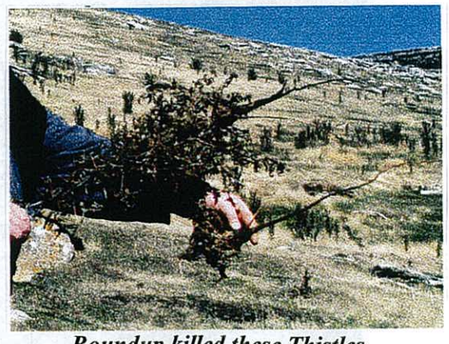
This article describes my recent work on control of two weeds, Spear Thistle and Broad-leaved Docks, on Saunders Island. I hope it illustrates some of the practical challenges of dealing with weeds in a relatively remote location. I also hope it raises discussion on the choices, some of which are complex, that face land owners in how best to control weeds given the push for organic status of farms and their products and the available range of modern methods for integrated weed control.

To my knowledge controlling introduced weedy plants has not been a major challenge for land owners here. We have been lucky in that unlike many other countries the Islands have not had to enter into expensive weed control programs using herbicides, mechanical or manual methods or even biological controls. However the above situation could be changing. As 'Camp' becomes more accessible to both local and overseas visitors there seem to be more concerns than previously about weeds. Perhaps these come from a more travelled and environmentally aware community.

During the 1990's Spear thistles (*Cirsium vulgare)* infested Elephant Point camp on the NW of Saunders Island. Nobody is sure how and exactly when this plant got there as the northern coast is quite remote and only visited by a handful of people each year. Several square kilometres now have thousands of easily seen thistles. Some grow in clumps and are particularly vigorous around the penguin burrows where, when mature, they can be over a metre tall and wide. The young plants are more difficult to see as their rosette-like leaves are low growing and can be easily missed. The plant is well adapted to the relatively dry conditions. Its long tap roots allow it to absorb water and nutrients from a much greater depth than the surrounding pastures which for most of the season appear drought stricken. The tough, sharp spines of the mature plant ensure it is not grazed by the sheep and are a nuisance to those that brush up against them and to shearers and wool handlers.

**Left of ditch not sprayed.**
**Right side, sprayed with Roundup.**

The island's owners, David and Susan Pole-Evans, were concerned that the thistles could spread eastwards to the rest of the island and affect those pastures and wool clips. They do not regard the spread of the thistles as an economic problem - at least not yet! They are also concerned that this exotic weed may spread to the 'Neck' area and affect the natural view of the fantastic wildlife and scenery there which their 'eco-tourists' come to see.



***Roundup killed these Thistles. Note the long tap roots.***

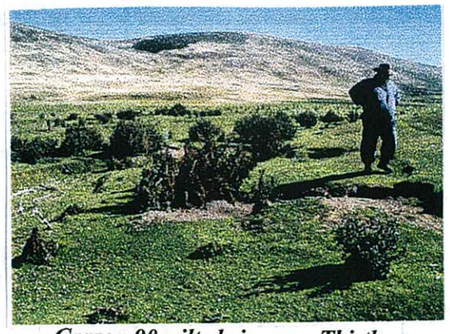
So being eager to try to control the spread of the thistles they sent me a few specimens which I identified as Spear Thistle. After an initial visit and discussions David and I decided to test a few suitable herbicides as the most practical step that could be undertaken initially. Following advice through the 'Queen's University Link' and from colleagues three readily available herbicides were chosen for testing. These were David's Roundup®, and DoA stocks of Grazon 90®, and Depitox®.

***Wilted thistles following spraying with Grazon 90. Note the characteristic Purple flower of Spear thistle.***

Taking into account the remoteness of the site and that transport of clean water from the settlement by rover would take over two hours on the rough track, we decided that spot spraying from knapsack sprayers was the best option available for a trial run. In late January we each used a knapsack containing 10 litres of water and we sprayed as many plants as possible in about an hour at each site. The sites were each about 0.3 – 0.5 of a hectare. While on the island I also took the opportunity to try the same herbicides for control of the Docks which are vigorously growing in patches around the settlement. I returned in early March to assess the results which are in the table and photographs.

| *Herbicide name* | *Active ingredient* | *Herbicide volume* | *Effects on thistles* | *Effects on Docks* |
|---|---|---|---|---|
| **Roundup®** | Glyphosate | 60 ml | Best treatment so far. Thistles totally dead. Seed development halted. Little adverse effect on grasses as they had died back in the dry summer. | Very good kill, but new leaves emerging need a second spray. Some grass killed too. |
| **Depitox®** | 2,4-D | 80 ml | Plants wilted but stems still green. Seeds not developed. Mountain berry and sorrel 'browned'. | Top leaves burnt off but still some left below. Not much different |
| **Grazon 90®** | Clorpyralid + triclopyr | 100 ml | Plants wilted but stems still green. Seeds not developed. | Good kill , but new leaves regrowing needs second spray |

I hope to return to the areas early next summer to assess longer term effects on the regrowth of both weeds. The herbicides range in price but are not cheap. For example the 5 litres of Roundup® cost David about £134 while one litre of Grazon 90® costs about £95. There are other herbicides worth trying, i.e. those containing MCPA which could be considerably cheaper.



***Grazon 90 wilted vigorous Thistles Growing near penguin burrows.***

However herbicides are not the only solution and other 'more environmentally friendly' methods may exist. For example a much larger area, in the same 'camp' but further towards Elephant Point, is free from thistles. This seemed to be related to the greater intensity of sheep grazing there in that the pasture appeared shorter and greener. Thus the possibility exists that perhaps with temporary fencing sheep could be managed to control the thistles in the infested area. Also the two pet goats in Saunders settlement do eat the thistles. Thus there is the possibility that some more goats could be brought from the flock on Pebble Island and stocked on the infested area.

Additionally, should other more controversial biological controls be introduced to help control the spread of thistles? For example in Victoria Australia, a gall fly that destroys the flowers and a weevil that destroys the developing seeds are recommended for controlling of Spear Thistle. While inspecting the dead thistles on Saunders we noticed that a few had the common

'grass grub' (a weevil larvae) feeding inside the stems. Perhaps with some further research this common but serious pest of Falkland's pastures and crops could be put to a worthwhile use. This may be better than introducing new insects which could become pests themselves. Food for thought!

***Docks before (left) and after (right) spraying with Roundup.***

There are difficult choices ahead regarding the spraying of agrochemicals. For UK farmers to achieve organic status a conversion period of about two years free from such practices is required. A similar period and or restricted use in certain areas could be used here to establish this potentially valuable production system. The impact of spraying around wildlife areas on the animals and plants and the perception by tourists of the practice are also very important issues. There are no easy answers to weed control and I hope the debate will continue over the coming months.

If you have any comments or require advice on weed control then please give me a ring. Next month I will describe our recent work on controlling Calafate at Island Harbour.

## WHAT DO I DO WITH MY ROCK PHOSPHATE?

***By Sean Miller, David Parsons & Bob Reid***

Now that it's here, what do I do with it? A call echoing across the Falklands at the moment!

To tackle that question, and in fact the whole question of pasture development and how the Pasture Improvement Programme will operate, we are going to conduct another series of day-long courses around the Falklands during late April.

The courses will probably be at Hill Cove, Fox Bay, the North camp and Goose Green. Dates and times will be announced over the next few days. The courses will be run along the same lines as last year's successful courses.

Topics covered will include;

- What improvements can be made to Falklands' pastures?
- How does rock phosphate work?
- Where and why to use it?
- How does calcified seaweed work?
- Techniques to develop areas
- What plants to use and where (grasses, legumes, fodder crops etc.)?
- What sowing rates?
- What fertilisers and where?
- Assessing pasture success
- How will the Pasture Improvement (machinery pool and assistance) Programme operate?
- What am I eligible for from the Programme?

The courses will be plain-speaking, low-tech stuff so don't feel put-off by the thought of "*stuff going over my head*". So that we can organise numbers please give us a call in Stanley as soon as possible and let us know if you can come along.

## TAKE A SEAT!

***By John Hobman of Saladero***

About 35 years ago somewhere in the Chartres area I saw a unique little stool that would be a rustic addition to any conservatory or garden.

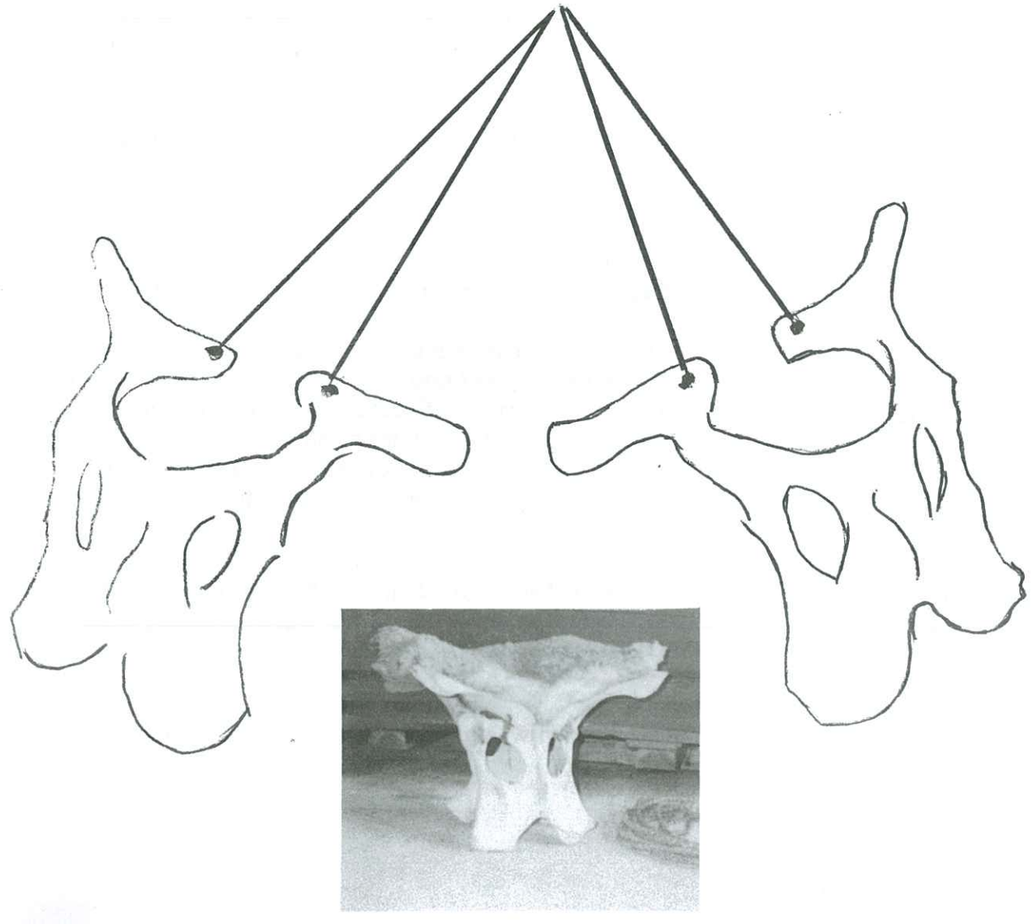
It is made with the hip bones from 2 oxen, 4 hide tientas (thongs) which should be about 2 feet long and ¼ inch wide and a lamb skin.

To make the stool: Soak the tientas in water to make them pliable, then drill four ½ inch holes in the bones (as shown in the diagram) and link one bone to the other. Lash the bones together using the wet tientas. Leave to dry. You may need to use a rasp on the bottom to make the stool level. Sit your lamb skin or conjinilla on the top to use as a cushion.

You could have a more refined finish by using varnish on the bone or having a purpose made cushion for the seat.

This basic little stool can be made in half an hour from what can be found on most farms.

Drill 4 holes as indicated. Attach a tienta to each hole
then interlock both bones and lash together.



## WEANING OF CALVES

*By Jeremy Challacombe*

It is coming up to weaning time for the National Beef Herd calves. We are aiming to wean our calves in May this year. The rationale for weaning at this time is that it should allow both the mother and the weaner the best opportunity to cope with the forthcoming winter. Weaning later is both a drain on the cows and provides no extra advantage to the calves; with the likelihood of both cows and the calves losing weight.

By the time calves are six months old, they should be depending less and less on their mother's milk which will probably be drying up as a result of rapidly reducing feed availability. The mother really needs all the feed herself at this time to cope with winter and prepare for her next calf.

How animals are treated at weaning has a significant impact on the rest of their lives. Weaning itself is a stressful business and we as cattlemen do not want to add to that stress. (Stress results in reduced weight gain and an increased time to reach market weight.)

Calves should be weaned in the yards (Cows should be taken away from calves NOT calves taken away from cows!)

Calves are normally weaned at 6 to 7 months of age and should be fed and watered in the yards for up to ten days before being permanently put out in a paddock by themselves.

During the period the calves are in the yards, they should be fed either hay or cut green feed or a combination of both (depending on what is available). Ideally, they should be fed twice a day and have unlimited clean water.

During the time they are in the yards, it is an opportunity to work them through the yards and get them used to being handled and responding quietly to stockmen.

Towards the end of the weaning period, they should be "tailed out" or grazed away from the yards. Let them out in the morning to graze and put them back in the yard in the afternoon. This will teach them the basics of being mustered or gathered. At home, I tail the calves out of the yards with a horse in front and a horse behind. When I bring the cattle back, I do the same, with a horse in front and a horse behind. When they get older, they get used to both being driven and being led. It certainly makes mustering or gathering easier on both the cattle and the stockman.

After the animals have settled down and are responding appropriately, they are put out to a paddock.

**REMEMBER**

How animals are treated at weaning and what they learn stays with them for the rest of their lives.

## MONTHLY BEEF RECIPE

*By Jeremy Challacombe*

Obviously, as the beef industry grows, we need to look at the various ways of cooking beef. This month, we combine two favourite ingredients, beef and beer.

### BEEF AND BEER POT ROAST

750g to 1 kg piece of lean beef pot roast (topside, blade, silverside or brisket)
0.25 cup flour seasoned with mustard, salt and pepper
2 tablespoons of vegetable or olive oil
1 sliced onion
1 medium carrot sliced
2 bay leaves
0.5 cup pitted prunes
1 cup beer
(brown sugar optional)

- Coat the beef in seasoned flour, reserving any excess.
- Heat a little oil in a deep sided pan on high and fry onion until browned. Remove and put aside.
- Heat a little more oil on high. Brown roast on all sides. Return onion to pan. Add carrots, bay leaves, prunes and beer.
- Reduce heat to low, cover and simmer (cooking gently at a level where tiny bubbles rise to the surface) for 2 to 2.5 hours turning occasionally and checking liquid level.
- Insert a carving fork into pot roast. If it slides in easily, the roast is cooked. Remove to a plate and keep warm. Blend any reserved seasoned flour with a little water and add to the contents of the pan. Boil until thickened. Add brown sugar to taste if desired.
- Serve with potatoes and seasonal vegetables

PS: I'm told that beef eaters make better lovers

## FOOD (BEEF) FOR THOUGHT

*By Cameron Bell*

A conference late last year of the Australian Association of Cattle Veterinarians saw a paper presented that considered beef producers in south-west Victoria (the state in the south-east corner of the Australian mainland), involved in a farm monitoring project. What most of the producers had in common was that they **failed to realise a profit for the last financial year**. Many had failed to make a profit in previous years also. The other findings of the project were:

- An increasingly higher proportion of income is derived from other sources (including off the farm), with cattle a sideline or "lifestyle" option.
- The average farmer is now over 55 years old.
- Most average sized farms are struggling to remain viable.

So where are Australian beef producers heading in the future?

- There may be an increasing number of part-time farmers, with cattle an interesting diversion.
- Most income will probably be generated off-farm.
- Holdings may become amalgamated to capture economies of scale. This will occur through leasing, share farming and outright purchase.
- More and more farmers will have better education, such as certificates, diplomas and university degrees.
- Farming may become the province of those who own the machinery and stock, but not necessarily land.

If these changes do occur, it is suggested there will be two types of producers:

- Part-time farmers in it 'for love not money', probably more interested in the health, welfare and productivity of each and every animal.

- Full-time farmers who will focus on the bottom line and whole herd performance, be able to handle routine animal health issues and take a more 'holistic' approach to management of the farm.

Will such changes be emulated here in the Falkland Islands in the future? Are these changes good or bad? What can we do about it? All interesting things to ponder.

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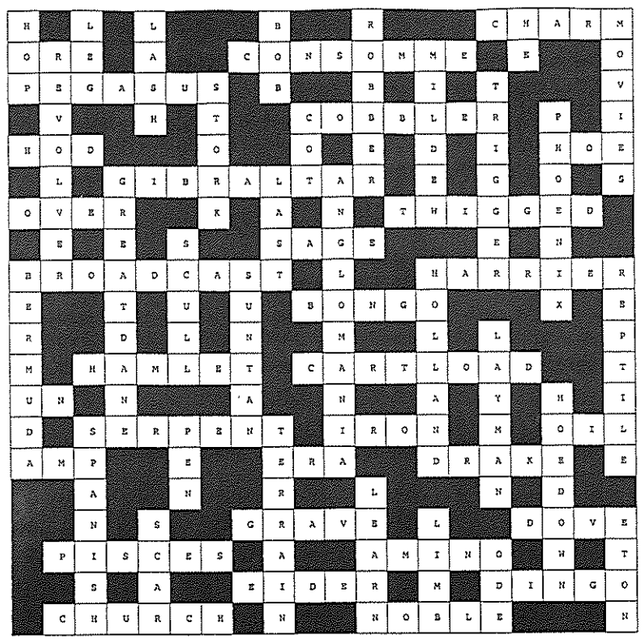
## ANSWERS TO LAST MONTH'S CROSSWORD




**WANTED**

**Cattle horns, any size, any age, any number.**

**Freight payable by me!**

**Contact: Lucy Ellis at 11 James Street, Stanley or at the Department of Agriculture.**

# FOR SALE

**1 x 2000 Gallon iron tank**
**1 x 1000 litre stainless steel tank**

**If you are interested, please contact Bobby or Peter Short on Telephone or fax: 21297 or 32280**

### INFORMATION FROM SUSIE HANSEN OF MAIN POINT FARM

People may be interested to take a look at the Dodson and Horrell web site and see all the different types of horse food available for various requirements. Also dog food.

**www.dodsonandhorrellltd.com**

We have food in stock most of the time (at Hill Cove). However we can do special orders at any time.

Please contact Susie or Iain for further details and prices.
**Telephone: 41008, fax: 41009, or e.mail: shansen@horizon.co.fk**

**G & S SHEARING SUPPLIES**
**Tel/fax: 32235 or e.mail:** hew@horizon.co.fk

Sunbeam Super Pro machines, grinders, Regal Eclipse handpieces, now available. Heiniger cover combs. Warrie Fleecy singlets, half sleeve sweatshirts, open front check jackets, half zip check jackets, ¾ length Kiwi jacket with hood, 2 button plain jackets, children check jackets with hood, shearing trousers.

We have direct account with Heiniger, Sunbeam, Warrie and ordering from ACTO NZ shortly. If anyone has a specific requirement, please let me know.

## THE OPEN DAY QUIZ COMPETITION RESULTS

*from Mandy McLeod*

The results were all very close with Marlene Marsh of Shallow Harbour farm sharing the top spot with Nigel Knight from Coast Ridge farm. The DOA staff selected a winner by using the tiebreak poem verse. Unlucky Nigel! Marlene wins a two-year subscription to Practical Farm Ideas.

*I have taken the liberty of linking all the poem entries to form the little ditty below. Bearing in mind that they all only knew the first verse, I think the whole lot link together nicely to form a very original piece of humour.*

### The Goats Dilemma

The man from the Wreck who got some goats
Tended and loved them and fed them on oats
Until one day they decided to stray
And off they all went to the Head of the Bay

At the Head of the Bay a man called Ted
Said to the goats 'Buck up or you're dead'
Sheila said 'Oh Ted, please don't get ratty'
'They might just eat all the Calafate'

With a blast of Ted's buck shot
They continued at a fine trot
At San Carlos they found some nice Nannies and a Billy
And decided that they weren't so silly

At the Head of the Bay, they only got grass
The goats were all fuming "Bob lied, it's a farce!"
The Bay was bad, so one did say...
"Shall we all go to the DOA?"

They looked out to sea and spotted 'The West'
Saying 'Living o'er there would be 'simply the best"
How can we get there they constantly dreamed
For even to goats it looked 'peaches and cream'

Ted said 'Oh God! What shall we do?'
Sheila said 'I know, I'll make a goat stew.'
'B????? that' said Ted 'We'll make more dough'
'If we take them to town and sell them through Freshco!'

The farmer thought now we'll make plenty of money
He turned to his wife and asked 'What do you think honey?'
She replied 'Yes, they do look quite nice.'
'I wonder what their meat is like to dice'

The man from the Wreck arrived with his oats
Trying to get back his precious goats
The wife from the Wreck comes up too
But Sheila says 'Too late! We've made a tasty stew!'

*The verses were written by the following people: 1) Doug Cartridge; 2) Aidan Kerr; 3) The Heathmans; 4) Marlene Marsh; 5) Nigel Knight; 5) Toni Stevens; 7) Violet Clarke; 8) Iris Dickson.*

## IDENTITY CRISIS

*By Cameron Bell*

Since the end of 1999, a new system for identification and tracing has been developed and implemented in Australia. This has come about for three reasons.

(i) the need to protect reputations of quality beef and dairy products

(ii) meet conditions required for export to the European Union (EU)

(iii) to gain a competitive advantage in domestic and international markets.

The National Livestock Identification Scheme (NLIS) requires producers to permanently identify cattle with a 'breeder tag', each of which is both visually and electronically readable. The tag will also contain details of the property of birth for the animal. Standard ear tags for reading from a distance can be used simultaneously. The cost of the breeder tag is expected to be about AUD$4.

Although a voluntary system, farms producing cattle for EU processing must be registered and use the NLIS. The NLIS is a cattle industry initiative developed in close consultation with the Federal and State Governments of Australia.

Producers can purchase a suitable reader which will read the transponder in each breeder tag. This system will deliver opportunities for significantly improving on-farm management and increased productivity by being able to directly link parameters such as bodyweight, condition score, carcass yield and meat quality.

A similar system for identification purposes only, has been introduced in the United Kingdom, although this system is compulsory and only utilises standard ear tags.

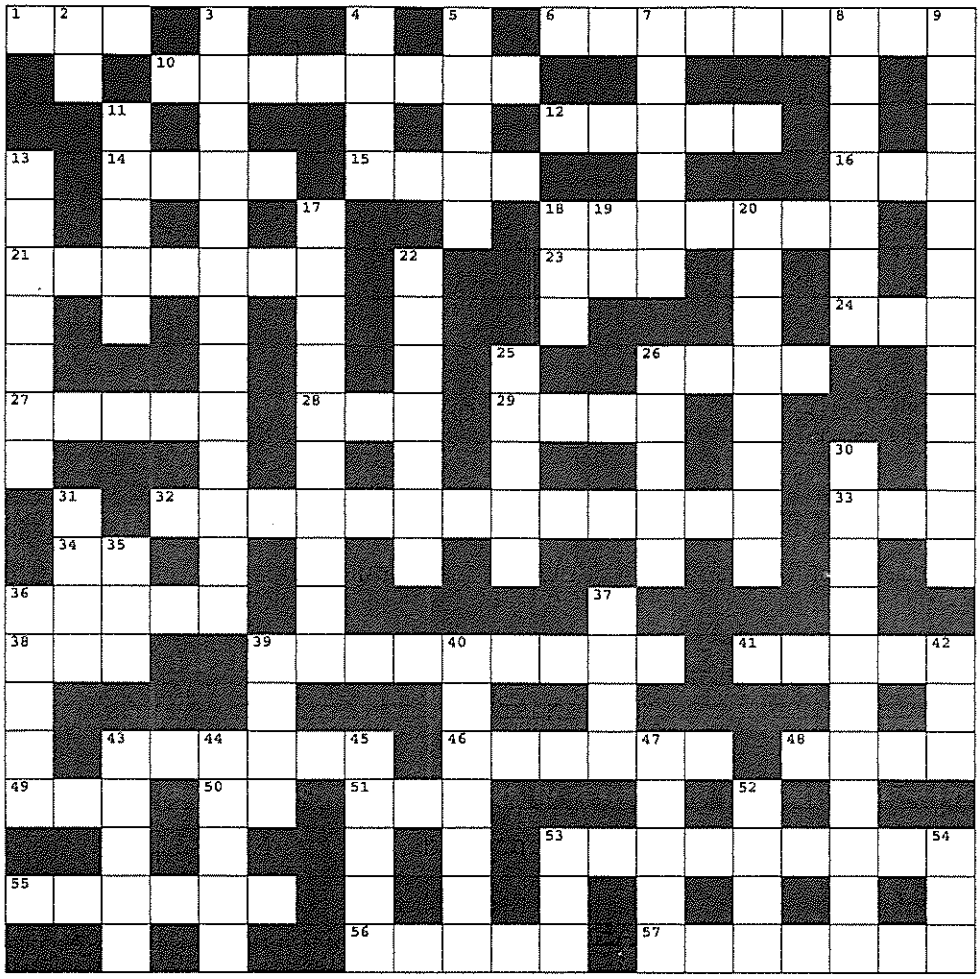
If and when Falklands beef is being produced for export for the EU, then there will obviously be a need to use a similar identification scheme as Australia. Irrespective of the future destination of Falklands beef, the NLIS presents excellent opportunities for monitoring beef production.

### SHEARING REMINDER

**Farmers are reminded that any sheep being shorn from March 15 to April 30 using standard combs is of animals which are to be slaughtered off shears. Such animals should be slaughtered within 2 hours if they are not penned in the shearing shed, and within 24 hours if kept in a shed.**

### *Wanted*
### *Cow Reproductive Tracts*

*Just a reminder for anyone slaughtering mature female cattle. I am interested in examining fresh reproductive tracts (uterus, ovaries etc.) for an ongoing study of cattle reproductive disease. If possible let me know ahead of time so that I can arrange prompt delivery to the Department of Agriculture. For further information, contact Cameron Bell on 27355.*



ACROSS

1. PEA SHELL AT PORT SAN CARLOS?
6. NOT A SOFT DRINK
10. A HOT CURRY
12. OYSTER GEM
14. A LONG WALK
15. PLANS
16. PEN TIP
18. CHURCH SPIRE
21. SELF PROPELLED WEAPON
23. TAP GENTLY WITH PALM OF HAND
24. UTTER
26. SACRED IMAGE
27. PUB MEASURE
28. GROUP OF SHEEP
29. PRESS
32. DRESS-MAKING EQUIPMENT
33. HEAD GEAR
34. NOT FROM THIS WORLD
36. FRENCH CAPITAL
38. IT DOESN'T MATTER WHICH
39. COMMUNICATION DEVICE
41. INDIAN TENT
43. EDIBLE ROOT
46. PEBBLE MOUNTAIN
48. SMALL 2 WINGED FLY
49. ATMOSPHERE
50. WHEREABOUTS
51. UPPER LEGS
53. CONJURERS
55. ROYAL HOME
56. COMMON GARDEN FLOWER WITH A FACE
57. LAND PEOPLE

DOWN

2. EITHER
3. POINTED TOED SHOES
4. HAND INNER
5. FLOWER OF REMEMBRANCE
7. SWISS STYLE HOME
8. LARGE FEMALE WILDCAT
9. ENERGY FOOD
11. LARGE HORSE
13. 8 SIDED OBJECT
17. FLOOD DISASTER COUNTRY
18. SECRET AGENT
19. THANK YOU
20. CHILEAN DICTATOR
22. HEARTED GARDEN VEGETABLE
25. GOLD KING
26. COUNTRY OF SOUTHERN ASIA
30. FURNITURE STRIPPER???
31. PULSE
35. ATTEMPT
36. ITALIAN DISH
37. ONE WHO THINKS THEY ARE ABOVE OTHERS
39. CAMPING HOUSE?
40. CINDERELLAS CARRIAGE
42. DEVOUR
43. BILLY GOATS GRUFF MONSTER
44. CATTLE FARM
45. ROUNDED
47. ALLOWED
52. CRUST FORMED ON A WOUND
53. FIFTH MONTH
54. ELITE FORCE

# The Wool Press

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**All the regular features and more!**


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**CALIBRATING A FERTILIZER SPREADER**
*By David Parsons*

**WHERE IS THE SCIENCE FOR POOLING 30 TONNES OF FINE WOOL?**
*By Robert Hall*

**SOME FURTHER IDEAS ON TREE SPECIES FOR THE FALKLAND ISLANDS**
*By Jim McAdam*

**CONTROL OF CALAFATE**
*By Aidan Kerr*

**THE MAKING OF WEST LAGOONS FARM WOOL SHED**
*By Peter & Shelly Nightingale*

**SURVEYING THE FALKLAND ISLANDS FLORA**
*By David Broughton & Jim McAdam*

**RECOGNISED CUTS OF BEEF**
*By Jeremy Challacombe*

**DUNG BEETLES**
*By Cameron Bell*

## EDITORIAL

As most people are aware Diana Berntsen is now operating from Walker Creek as from 1st May. If you should have any queries etc., Diana's new telephone number is 32296.

It's now the time of the year when we see lots of farmers in town. If any farmer would like to know more about computers or how to do the accounts system on the computer, I would be glad to be of assistance.

Farming Statistics forms have all been sent out to every farm. Please fill in and send back to me as soon after the 31st May, 2000 so that I can get them collated and printed for publication. The final cut off point for forms to be sent back to the Department of Agriculture is 30th June, 2000.

Bob, David and Sean are organising short courses on Pasture Improvement. These courses will be plain-speaking, low-tech stuff so don't feel put off by the thought of "stuff going over my head". Please come along and discuss such topics as techniques of pasture improvement, how to use rock phosphate and other fertilizers, the pasture improvement programme and other topics.

The May Ball is almost here, I expect we will see some farmer dads parading around their lovely daughters at the ball. Good luck to all those girls who are participating in the event of the year.

## JOKE OF THE MONTH

A woman walking along Port Howard beach stumbled across an old lamp. She picked it up, rubbed it and out popped a genie.

The genie said "This the fourth time I've been let out of the lamp this month. Forget about three wishes, you only get one".

The women thought about it for a while and said, "I've always wanted to go to Goose Green but I'm scared of planes and I get very seasick. Could you build me a bridge to Goose Green so that I can drive over there to visit?"

The genie laughed and said, "That's impossible, think of the logistics of that!"
"How would the supports ever reach the bottom of the sea? Think of how much concrete, think of how much steel! Now think of another wish"

Finally she said; "I've been married and divorced four times. My husband always said that I didn't care and that I'm insensitive. So I wish that I could understand men. I want to know how they feel inside and what they're thinking when they give the silent treatment, know why they're sulking, what they really want when they say 'nothing' and understand how to make them truly happy".

The genie answered; "Do you want that bridge two lanes or four?"

## THIS MONTHS CONTRIBUTORS

| | | | |
|---|---|---|---|
| Sean Miller | Sheep Nutritionist | Peter & Shelly Nightingale | Farmers, West lagoons |
| Cameron Bell | Veterinary Officer | David Parsons | Legume Agronomist |
| Aidan Kerr | Snr. Scientist | Robert Hall | Falkland Woolgrowers Ltd |
| David Broughton | Falklands Conservation | Jim McAdam | Queen's University |
| Jeremy Challacombe | Beef Specialist & Advisor | | |



## CALIBRATING A FERTILISER SPREADER

***By David Parsons***

Now that the rock phosphate is here, we need to get the stuff onto the ground. For those who do re-seeds regularly that's a normal job, but for others it's a new experience. I'm no mechanical genius, so I won't try and explain all the maintenance and operation requirements of spreaders. What this article is essentially about is putting on the right amount of fertiliser. Here's the number one pointer:

**Don't always believe the manual** – Often manuals will quote a certain speed and setting for a specific type of seed or fertiliser. Sometimes these settings are close enough, but sometimes they are way out. So how do you know? The only way is to calibrate the machine yourself.

There are a number of factors that effect the amount of fertiliser being spread:

1. **Forward speed** – The speed chosen is usually one which gives the fastest work rate which is safe and comfortable to drive at. For a given shutter setting, the faster you drive, the lower the application rate.
2. **Shutter setting** – There are all types of fertiliser spreaders, however the basic principle is that the regulator setting controls the amount of fertiliser that is leaving the hopper. The wider the shutter opening, the higher the application rate will be. A larger opening at a faster forward speed gives a more uniform flow of fertiliser than a smaller opening at slower speed.
3. **Bout width** – Bout width is the distance from the centre of one tractor pass to the centre of the previous tractor pass. There should be some overlap with the previous pass to give an even coverage.

The method that I will explain for calibrating spreaders is a "static" method, meaning that you can do it in the yard or workshop, and you won't waste any fertiliser doing it.

It is essential that you accurately know your forward speed. If you are not 100% sure then check your speed using the following method.

**To check forward speed:**
Mark out 100m with two sticks. Pick the required gear at standard P.T.O. speed. Start timing as you knock down the first stick and stop the timer when you drive over the second stick.

$$\text{Forward speed (km/h)} = \frac{360}{\text{Time to drive 100m}}$$

e.g. Driving time is 45 seconds:

$$\text{Forward speed} = \frac{360}{45} = 8\text{km/h}$$

**To Calibrate the Spreader**

*You will need*:
An accurate speedometer, some scales, a bag to catch the fertiliser.

*Method*:

1. Check that the spreader is suitably prepared and mounted.
2. Choose a suitable forward gear and engine speed.
3. Check the forward speed.
4. Check the band width, by consulting the manual for the particular type of fertiliser, and by checking the spread with a measuring tape.
5. Arrange a bin or bucket to collect the fertiliser as it comes out. With pendulum spout machines, remove the spout and suspend a sack under the mechanism. For spinning disc machines, a well placed woolpack can work.
6. Weigh the amount of fertiliser that comes out in a given time (e.g. 30 seconds) and calculate the fertiliser rate from the formula below.
7. Open or close the shutter and repeat until the desired rate is achieved.

**Amount per hectare (kg/ha) = Fertiliser collected (kg) x 36000**
**Speed (kph) x Time (sec) x Width (m)**

*To do it simply on a calculator*:

**Amount per hectare = Fertiliser collected x 36000 ÷ Speed ÷ Time ÷ Width**

For example:

- The Speed of the tractor will be 8 kph
- The Bout width is 10m wide
- 15 kg of fertiliser is collected in 30 seconds

Rate = 15 x 36000 ÷ 8 ÷ 30 ÷ 10
= 225 kilograms per hectare

The first time you do it, you will need your thinking cap on, but after you have done it once it will become easy. This really is worth doing, as otherwise you will have very little idea of what rate of fertiliser you are applying. Good luck!

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## WHERE IS THE SCIENCE FOR POOLING 30 TONNES OF FINE WOOL?

***By Robert Hall***

The idea behind the recent Wool Press article of April 2000 (Issue 125) "Fine Wool Pool" was presented without facts and figures pertinent to the Falkland Islands.

Good marketing, like good scientific research is based upon facts. The statements that "Every farm will have some wool that is less than 20 micron" and "A rough initial estimate suggests that there could be more than 30,000 kilograms of 20 microns or less available" are unsubstantiated by any published data.

To achieve £3.00 to £10.00 per kg clean for 30 tonnes clean of super fine fleece wool would necessitate about 46 tonnes (46,000 kg) greasy of fleece wool or the skirted fleece production of at least 15,000 super fine sheep (2.3% of last year's shorn sheep population). Whilst Falkland Wool Growers Ltd would be delighted to market such a quantity of super fine wool there is no published evidence that such volumes currently exist.

The 1997 Treasury figures compiled by Richard Wagner for the Falkland Islands (excluding Port Howard Farm) show less than 5.5 tonnes of Falklands wool of less than 21.5 microns. Of this wool 1,291 kg clean was from 18.8 to 19.9 microns and represented two year's Polwarth National Stud Flock production and represents the most substantial weight of truly excellent, fine Falkland wool of less than 20 microns to have ever been marketed during any one year. To date, since then, as result of management, genetic and environmental changes the Polwarth National Stud Flock has not marketed any wool of less than 20.0 microns such that the 1999 Treasury figures show no wool to have been produced of under 20 microns.

The latest 1999 Treasury figures for the Falkland Islands (again excluding Port Howard) show under 5 tonnes of wool less than 21.5 microns. This is the finest of Falkland wool from which any wool of finer than 20 microns must largely come. (A further 19.5 tonnes of under 22.5 microns would be bulk 21.8/23.0 microns with some 21/24 microns).

Equally the Department of Agriculture's own Falkland Islands Sheep Assessment Project (FISAP) data of the late 1980's/early 1990's, albeit with easily criticised and problematic fibre diameter analyses, hardly supports the notion of 30 tonnes of wool finer than 20 microns now existing nor with contributions amongst all farms. Indeed without an animal welfare problem, hoggets from flocks with a recent Romney ancestory and mean hogget fibre diameter of about 25 microns do not produce super fine fleeces.

Has the "idea" of pooling fine wool that lacks science been presented at the expense of the Department of Agriculture's Scientific and Advisory reputation? Why has the annual, job creative, Wool Board type operation with a central wool warehouse been presented under yet another but perhaps more desperate guise? The Department of Agriculture's and any future Economic Development Agency's hall mark must be based upon objective analysis. Supportive data should be presented.

Super fine wool does exist in small quantities, notably on farms such as Mount Kent which have just tested two excellent super fine bales (435 kg clean) of 20.0 microns hogget fleece wool. This demonstrates that well managed commercial farms in the Falkland Islands can indeed produce super fine wool. To 'maximise wool income from individual farms and capitalise on the high premiums currently payable for fine wool' I therefore propose that rather than search for many super fine fleeces that don't exist it would be more scientific to grow super fine fleeces that could exist. A development

project to produce a substantial weight of super fine Falkland wool should be considered using sheep with super fine genetics. Given that global demand and prices for super fine wool are rising, Falkland wool of 18.8 to 20.0 microns can be grown, management skills and suitable farm infrastructure largely exist, as does the wool marketing system: a super fine development project has relatively few risks with serious and very real potential.

## GOATS DILEMMA CONTINUED.....

Ted says to Sheila "ol Gez better hurry"
"The next RIC are Gurkha and they're keen on goat curry"
With cured skins and meat and that valuable fibre it
will all add up to many a fiver.
***(From Richard Stevens at Port Sussex Farm)***

## SOME FURTHER IDEAS ON TREE SPECIES FOR THE FALKLAND ISLANDS

***By Jim McAdam***
***Queen's University, Belfast and***
***Department of Agricultural and Rural Development***

Although the Shetland Islands have a wetter climate than the Falklands, levels of exposure are similar in both places. From an agricultural view point, the provision of shelter is the most important reason for planting trees in the Shetlands and the Falklands.

Hence, as in the Falklands, Shetland Islanders are trying to encourage an interest in tree planting and have produced some useful advisory literature.

Generally the recommended methodology for tree planting in the Shetlands is very similar to that being recommended for the Falklands (and as detailed in the booklet "Guidelines for Shelterbelt Planting in the Falkland Islands").

The list of trees suggested for planting in the Shetlands is interesting and, while it contains species which are recommended for the Falklands there are others worth considering.

This list is produced in detail on the next page for your information.

### SUGGESTED PLANTING LIST

Scientific names included to avoid confusion when ordering

| SPECIES<br>BROADLEAVED TREES/SHRUBS | SITE<br>S | <br>E | TYPE<br>D | <br>W | SOIL<br>P | <br>M | NOTES |
|---|---|---|---|---|---|---|---|
| DOWNY BIRCH *(Betula pubescens)* | | * | | * | * | * | Hardy, frost resistant. Prefers peaty soils. |
| WILLOWS *(Salix capraea)*<br>*(Salix smithiana)* | | *<br>* | | *<br>* | *<br>* | *<br>* | Can tolerate quite wet conditions. |
| ASPEN *(Populus tremula)* | * | | * | | | * | Prefers non peaty soils. |
| ROWAN *(Sorbus aucuparia)* | | * | * | | * | | Prefers well drained, lighter soils. |
| HAZEL *(Corylus avellana)* | * | | * | | | * | Light soil preferred. Tolerates shade. |
| SYCAMORE *(Acer pseudoplatanus)* | | * | | * | | * | Good resistance to salt spray. |
| WHITEBEAM *(Sorbus intermedia)* | | * | * | | | * | A hardy tree. |
| ALDER *(Alnus glutinosa)* | * | | | * | * | | Prefers wet conditions and heavier soils. |
| ELM *(Ulmus glabra)* | * | | * | | | * | Tolerant of salt spray. |
| ELDER *(Sambucus nigra)* | | * | * | | | * | Hardy shrub. Disliked by rabbits! |
| FUCHSIA *(Fuchsia ricartonii)*<br>ROSE *(Rosa rugosa)*<br>FLOWERING CURRANT *(Ribes sanguinium)* | *<br>*<br>* | | *<br>*<br>* | | *<br>*<br>* | *<br>*<br>* | Garden shrubs which all do well in Shetland. Produce a bushy, dense growth that can help shelter other trees. |
| **CONIFEROUS TREES** | | | | | | | |
| LODGEPOLE PINE *(Pinus contorta)* | | * | * | | * | | Hardy and reasonably rapid growing. |
| SITKA SPRUCE *(Picea sitchensis)* | | * | * | | * | | Both prefer peaty, freely draining soil. |
| JAPANESE LARCH *(Larix kaempferi)* | | * | * | | | * | Prefers mineral soils and plenty of light. |

**SITE TYPE:** S – Sheltered E – Exposed D – Dry W – Wet SOIL TYPE: P – Predominantly peaty M - Mineral

***With thanks to the Shetland Crofting Farming and Wildlife Advisory Group for permission to copy this table from their booklet.***

## FARMERS FLOCK TO TRY GROWING LUPINS

*Source: The Express, March 20, 2000*

An old-fashioned flower from an English cottage garden could transform the British countryside – and the fortunes of hard-pressed farmers.

Fields of yellow, white and blue lupins could be the new cash crop which will get agriculture out of the red.

Every year more than £200million is spent importing 23 million tons of soya from the United States to use in animal feed.

Farmers can barely afford it, and there are also fears over the product's safety as a genetically modified plant.

Now scientists believe lupins could replace soya imports – and Britain's farmers cannot wait to try it. Staff at the Institute of Grassland and Environment Research are taking 40 calls a day from farmers eager to ditch soya.

Lupins are already grown for feed in Australia. Varieties will be available soon which will thrive in the colder British climate.

Although garden lupins can be poisonous, the alkaloid which gives them a sour taste is absent in the strain cultivated for animal feed.

Other alternatives to soya such as red clover and lucerne have low protein content. But some varieties of lupin contain between 35 and 40 per cent protein and up to 16 per cent oil.

Dr Raymond Jones, the Institute's head of silage research, said "Lupin could be the animal food crop of the future. It has the potential to be grown across 10 per cent of the total UK land area within five years."

Jonathan Petit, of the National Farmers Union, said "It's a very interesting and exciting prospect."

---

## CHANGE OF TELEPHONE NUMBER & ADDRESS

As from 1st May, 2000 – Diana Berntsen has a new telephone and address.

**New telephone number: 32296**

**Address: Walker Creek**

## CONTROL OF CALAFATE

*By Aidan Kerr*

Calafate Bush (Magellan Barberry or *Berberis buxifolia)* has quite thick green leaves and sharp thorns. It is present in a few gardens in both Stanley and 'Camp'. A few bushes have recently appeared on the Stanley Common noticeably on the south side of the race course. There are also quite a few bushes in the paddocks at Island Harbour House near Fitzroy where it has grown mainly along the fence lines. This gives a clue as to how it has spread. Birds, in particular the 'Robin' seem to feed on the tasty dark blue berries and in so doing they deposit the seeds wherever they perch. As many will know it is also particularly common on the south side of the Sussex mountains. There it can grow in dense thickets to over three metres in the moist valleys. It also seems to sprout from roots and underground stems.

It is unclear when Calafate was first introduced here but Moore did not record it in his flora of the Islands published in 1968, so its spread into 'camp' vegetation has probably occurred since then. However it was almost certainly brought to the islands from southern South America possibly as an attractive hedging bush. There it can grow up to four metres tall. It commonly occurs from Tierra del Fuego northwards to a few hundred kilometres south of Buenos Aires and Santiago from the coastal to sub-alpine situations.

Calafate's relative *Berberis darwinii* is also a native of southern South America but it has become naturalised in New Zealand where it is an aggressive weed. According to a recent study of Falkland shrubs by David Broughton of Queen's University Belfast its seeds are also spread by birds and seedling establishment is prolific. Like many other woody weeds this plant could spread more readily in overgrazed vegetation. Thus if the same characteristics can be applied to Calafate (and there seems no good reason why it cannot be!) then its control should become an urgent priority before it spreads much further.

With this in mind and the help of Tim Bonner in early February I decided to try out two herbicides often used for controlling woody weeds – Grazon 90® (Clopyralid) and Velpar DF® (Hexazinone). Additionally I tried the commonly available Roundup® (Glyphosate) as a control. I sprayed Grazon 90 and Velpar DF from a knapsack sprayer while Tim sprayed on the Velpar using a 'Spot Gun'. All were applied at recommended rates. Some photographs were taken so that the effects could be compared later on.

While there we noticed that several bushes had recently been burned with good effect. However while much of the branches and leaves were dead new branches had resprouted from the base. These I sprayed with Roundup.

***A well burned Calafate bush.***

Around the same time Owen Summers and I sprayed Velpar DF and Grazon 90 on several bushes on the Stanley Common just south of the race course.

On May 1st I assessed and photographed the effects on the bushes. At Island Harbour house the burned bushes were still dead and the resprouted branches had subsequently died following the Roundup application. This simple method, of a controlled burn followed by a follow up spray, may be the cheapest and most practical method for areas where there are a few isolated bushes and a burn can be easily controlled.

***A bush sprayed with Roundup with comparatively little effect.***

As can be seen from the photographs Roundup had little effect on large mature bushes where it only singed the uppermost leaves that it

made contact with. However it did kill some very small bushes.

In comparison both the Grazon 90 and Velpar DF destroyed the bushes very well at both sites with Grazon 90 being slightly the more effective treatment. Some leaves and flowers had regrown on the tips of branches treated with Velpar DF. Neither spray seemed to affect the grasses much although Small Fern growing nearby was killed well by the Velpar DF while it singed Diddle-dee. Some nearby Fachine was singed slightly by Grazon 90 but remained vigorous and healthy.

***Bushes sprayed with Velpar DF.***

Before I recommend that the more successful of the above treatments be applied elsewhere I think it's worth bearing in mind the old adage 'One man's weed is another man's feed!" As reported in a previous Wool Press article the spread of the Calafate bush is cause for concern.

However, before it is totally eradicated perhaps some further consideration should be given to the products that could be derived from a well managed crop. Here wine has been made from the berries and one early French explorer to southern Patagonia made '*un champagne à la Calafate*'. The native people there extracted a yellow dye from its 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 need to be developed. Perhaps Calafate has some valuable medicinal properties. Dried Barberry roots were selling on the Internet at almost £19/kg.

This is not surprising when the rooty and other parts are reportedly used for treating liver trouble, constipation, jaundice, diarrhoea, anaemia, blood building and can offer potential as an eye tonic.

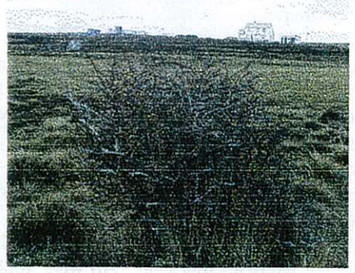
***The same bushes (left) 3 months later.***

So before we rush out and destroy it, perhaps some consideration should be given to turning the Calafate Bush from a problem weed into an alternative opportunity.

Finally the Calafate 'problem' also begs answers to another issue – that of plant imports which 'escape' from the gardens they are innocently introduced into and eventually become weeds. One benefit of the recently introduced Nature Conservation Leglisation is that it could prohibit imports of such weedy species. To my knowledge this particular species has not been imported recently, although other Barberry species have. Where do we draw the line? Comments please!

Thanks to Ron Binnie the manager of FLH Fitzroy farm for permission to conduct this basic study and to Tim and Owen for their assistance.

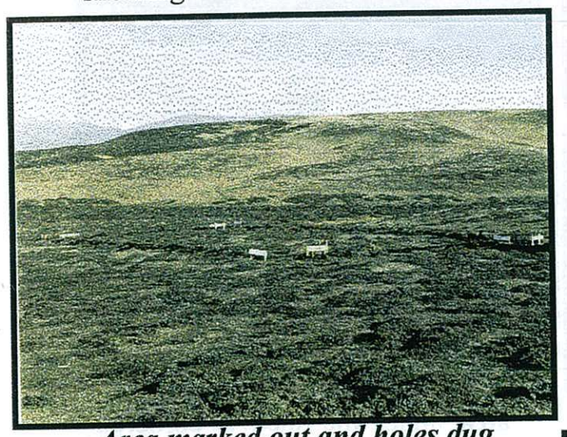
***Bush sprayed with Grazon 90-before (above) and 3 months after (below)***



# THE MAKING OF WEST LAGOONS FARM WOOL SHED

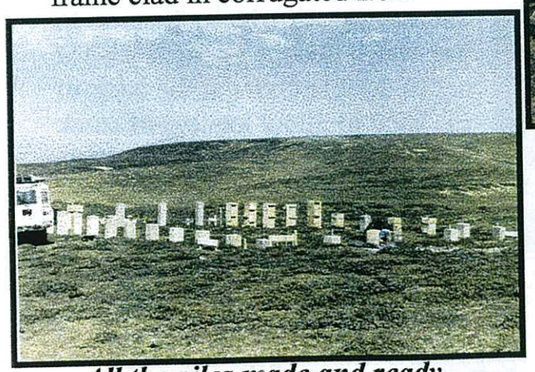
***By Peter and Shelly Nightingale***

After many years of driving our flocks to Hill Cove settlement we decided it was time to build our own shed. This was a daunting prospect has neither of us had any experience in building a shearing shed.



***Area marked out and holes dug for the piles at West Lagoons Farm.***

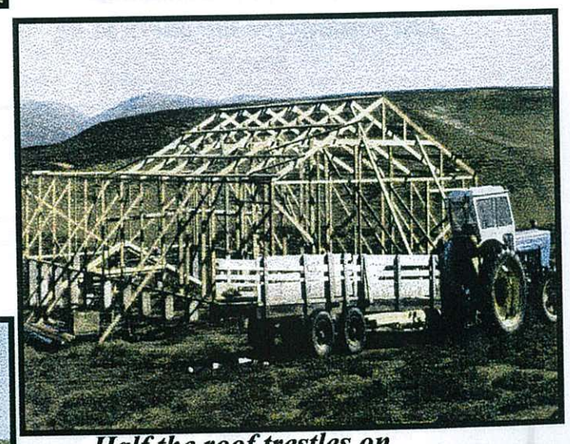
Designing the shell was fairly straightforward, cement piles of 600-mm square on one meter square pads supported a wood frame clad in corrugated iron.



***All the piles made and ready for the wood and iron.***

The inside was a little more difficult as we wanted a raised curved board, and getting the angles and the board in the right place was a problem. With a few raised board designs from the Department of Agriculture and a few small alterations of our own, we came up with a design that was fairly simple to build and also user friendly.

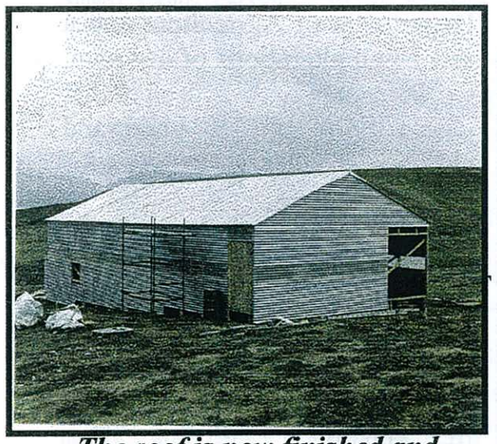
The measurements from the catching pen door to the shearing position to the letting out porthole are to New Zealand Wool Board specifications, as are the catching pens and the height of the board.



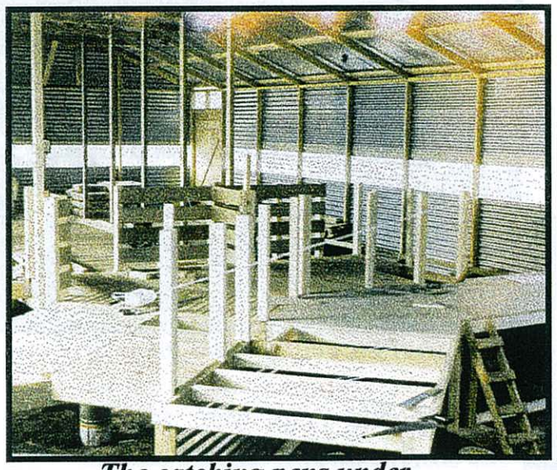
***Half the roof trestles on.***

Our mobile pens were set up inside the shed so we could find the most efficient way to have the holding pens. We did not raise the catching pens/shearing

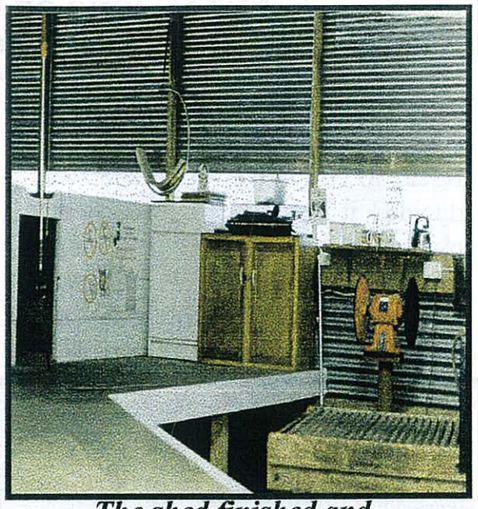
board up above the holding pens/wool floor, instead it is built on the same level as the holding pens, but the wool floor is built at a lower level so it looks like it is a raised board. By designing it this way we saved a lot of wood and also the board is not close to the roof.



***The roof is now finished and just waiting for the doors to be hung!***



***The catching pens under construction.***



***The shed finished and ready to use.***

The gratings are set so wherever the sheep run they will always run across the gaps in the gratings thus making it easier to move sheep around the shed. An area under the shed is cornered off to hold shorn sheep; a door is placed on each side of the shed to allow easy movement of sheep from this area.

Doors are also placed around the shed, including one sheep door, a bale door, and a small door to enter the shed, which opens on to the wool floor. There is also a set of double doors at the back of the shed to allow loading of stock in or out.

## SURVEYING THE FALKLAND ISLANDS FLORA

*By David Broughton & Jim McAdam*

A Darwin Initiative project on the Falkland Islands flora began in October 1999, will run for $1^1/_2$ years, and involve 12 months of fieldwork. The Darwin Initiative is a UK Government fund set up after the 1992 Earth Summit to enable British biologists to assist partner countries, where resources are unavailable, to carry out high priority research on their biodiversity. Projects funded under the Initiative always involve partnership with an organisation in the host country in this case the partner is Falklands Conservation.

Considering that it is such a fundamental resource the flora of the Falkland Islands has been poorly studied. The project will directly address the need for research and will be the first thorough and systematic study of the status and distribution of the flora. The project is also important as it is unbiased i.e. no species is deemed more important than another. In the past there has often been a bias towards rare and unusual plants whilst the common and more ecologically important species have been vastly under-recorded.

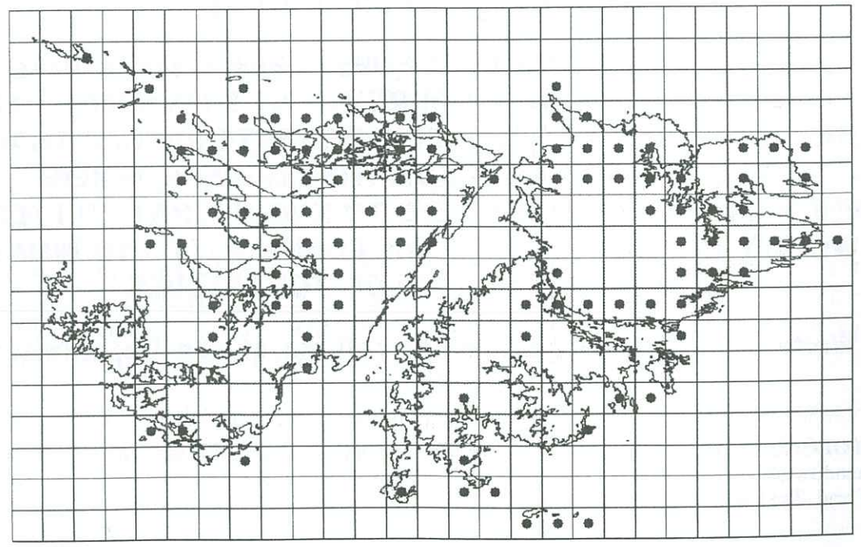
After one field season we already have an excellent understanding of the status and distribution of the Falkland Islands flora and we still have a final field season to go. Findings include:

• the first modern records of Twisted Filmy-fern (last recorded *c.* 1909), Shoreweed (last recorded *c.* 1950), Pondweed (last recorded *c.* 1964), Falkland Sedge (last recorded *c.* 1902) and Springbeauty (last recorded *c.* 1950).

• increasing the known number of non-native plants so that the non-native flora almost equals the native in number.

• the discovery that several species are not as rare as previously thought. In particular Marsh Pennywort, Antarctic Mountain Berry and Bristle Sedge are now known to be common.

• discovering new populations of several rare or scarce species e.g. Moonwort, Silvery Buttercup, Coral Fern and Pondweed.



Map showing 10km grid squares where detailed survey work has already been carried out

The end result of the project will be the first representative atlas of the Falklands flora and, perhaps more importantly, a computer database (held by Falklands Conservation) containing all the plant data. It is hoped that the data will remain freely available for use in the Falkland Islands not only for conservation planning (including monitoring the spread of non-native species) but also for agriculture, tourism, scientific research, education, and for helping to develop novel, sustainable, uses for the Falklands flora.

**Thanks to - Phillip & Sheena Miller, Ian & Eileen Jaffray, Tony & Lyn Blake, Roger & Norma Edwards, Ian & Mark Gleadell, Peter & Shelly Nightingale and Danny & Joyce Donnelly – for the help and hospitality they provided during my travels. Thanks also to all the other farmers (too numerous to name individually) who have allowed me access to their land.**



## ** TRAINING ** TRAINING ** TRAINING **
### a message from Mandy

**I WOULD LIKE TO HEAR REQUESTS FROM THE RURAL COMMUNITY FOR SHORT COURSES. AT THIS STAGE I AM JUST LOOKING AT TOPIC REQUIREMENTS RATHER THAN DETAILS OF WHO WILL RUN THE COURSES, WHERE, WHEN AND HOW. I JUST NEED TO KNOW WHAT YOU FEEL WOULD BE BENEFICIAL TO THE COMMUNITY AND WHAT YOU WOULD LIKE TO DO YOURSELVES**

Write with your suggestions or call me at the Department

**APOLOGY: from the Editor:** In last month's Wool Press an article called "Weed Control on Saunders Island" reported that - The island's owners, David and Susan Pole-Evans, were ..... Should of read -The islands's owners, David and Tony Pole-Evans, were .....

## MONTHLY BEEF RECIPE
*By Jeremy Challacombe*

With the winter months coming on, it is nice to eat a steaming hot pie. The following recipe is from the Meat and Livestock Authority. The meat used is diced casserole beef taken from the boneless shin, chuck, skirt or round cuts.

**BEEF HOTPOT PIE**

750 grams of diced casserole beef
1 tablespoon of olive oil
1 chopped onion
2 teaspoons of crushed garlic
400 gram can of tomatoes (with the juice)
310 gram can of corn niblets (with juice)
1 tablespoon of Worcestershire sauce
1 sheet of ready rolled puff pastry

- Heat a little oil and fry onion until browned. Remove and put aside.
- Heat a little more oil on high. Brown beef in small batches removing each batch before adding the next. Return beef and onion to pan.
- Add tomatoes, corn and Worcestershire sauce, stirring to combine.
- Reduce the heat to low, cover and simmer (cooking gently at a level where bubbles rise to the surface) until fork tender, about 1 ½ to 2 hours. Stir occasionally. Season to taste. If hotpot needs thickening, boil with the lid off for 10 to 15 minutes.
- Pre-heat the oven to 230 degrees celsius. Transfer contents to an ovenproof casserole dish, cover with pastry, pinching edges to make a frill. Bake for about 20 minutes or until golden.

## RECOGNISED CUTS OF BEEF
*By Jeremy Challacombe*

Many of us can kill and butcher a beef. One of the difficulties is that there are a variety of different cuts. These are known by different names in various parts of the world.

When we are growing cattle, we are looking for a reasonable price for our stock. This price is inevitably based on what the end user, the housewife, is prepared to pay for the various cuts. The price will vary from very high for choice cuts such as tenderloin, to much lower for forequarter cuts such as chuck.

It is important to have an understanding of the basic cuts; the percentage of the carcase or the average weight of individual cuts; and the price received for individual cuts.

As an example, the landed wholesale price of tenderloin exported from Australia to Japan last month was 639 pence per kilogram. The price for chuck at the same time was 118 pence per kilogram.

The price the farmer receives is therefore based on the returns for the individual cuts collectively.

Beef animals will have a dressing percentage of around 55% (although this can vary up or down depending on the condition of the cattle!). This means that an animal weighing 400 kilograms live weight will dress out at about 220 kilograms.

Different markets require different weights of animals. I have included as an example, a carcase breakdown for both an Australian domestic beef carcase, and a Japanese export beef carcase.

The diagram illustrates the various cuts of meat; the proportions of such cuts; and the location on the carcase of such cuts.

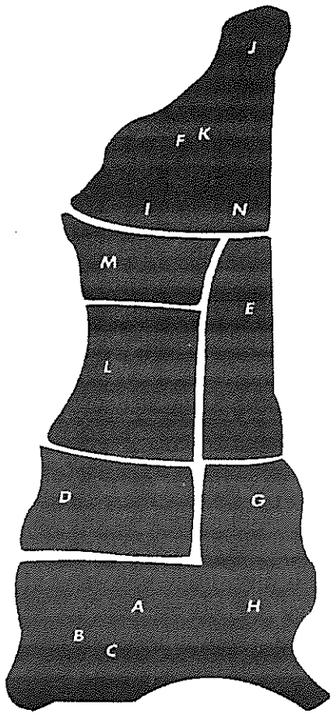
As the beef industry develops it is important to appreciate the value of the various cuts and the place this plays in marketing.

# Carcase Breakdown

### Japanese Export Carcase

Carcase weight: 297.29 kg
P8 fat: 15.83 mm
Actual yield: 68.73%

| Cut | | Average kg | %of c'case |
|---|---|---|---|
| A | Blade | 17.50 | 5.89 |
| B | Chuck | 32.25 | 10.85 |
| C | Chuck tender | 2.57 | 0.87 |
| D | Cube roll | 5.08 | 1.71 |
| E | Flank steak | 1.43 | 0.48 |
| F | Inside | 17.46 | 5.87 |
| G | Navel-end brisket | 10.21 | 3.44 |
| H | Point-end brisket | 10.21 | 3.44 |
| I | Rump | 12.13 | 4.08 |
| J | Shin/shank | 11.21 | 3.77 |
| K | Silverside | 21.65 | 7.28 |
| L | Striploin | 11.96 | 4.02 |
| M | Tenderloin | 4.77 | 1.60 |
| N | Thick flank | 12.25 | 4.12 |
| | Trim | 32.99 | 11.10 |
| | **Total meat** | **204.33** | **68.73** |
| | Bones | 57.38 | 19.30 |
| | Fat | 35.58 | 11.97 |
| | **Total Weight** | **297.29** | **100%** |




### Domestic Beef Carcase

Carcase weight: 211.65 kg
P8 fat: 11.04mm
Actual yield: 70.45

| Cut | | Average kg | %of c'case |
|---|---|---|---|
| A | Blade | 12.45 | 5.88 |
| B | Chuck | 22.70 | 10.72 |
| C | Chuck tender | 1.93 | 0.91 |
| D | Cube roll | 4.12 | 1.95 |
| E | Flank steak | 1.12 | 0.53 |
| F | Inside | 13.52 | 6.39 |
| G | Navel-end brisket | 7.10 | 3.36 |
| H | Point-end brisket | 6.94 | 3.28 |
| I | Rump | 8.80 | 4.16 |
| J | Shin/shank | 9.20 | 4.35 |
| K | Silverside | 16.40 | 7.75 |
| L | Striploin | 9.64 | 4.55 |
| M | Tenderloin | 3.62 | 1.71 |
| N | Thick flank | 9.41 | 4.45 |
| | Trim | 22.22 | 10.50 |
| | **Total meat** | **149.17** | **70.45** |
| | Bones | 40.47 | 19.12 |
| | Fat | 22.01 | 10.40 |
| | **Total Weight** | **211.65** | **100%** |

Carcase weights based on AUS-MEAT
Hot Standard Carcase Weight

Source: Viascan

# DUNG BEETLES

**By Cameron Bell**

What happens to all the cattle and sheep dung in the world? The answer is 4000 known species world wide of dung beetle. Australia alone has 200 native species along with introduced species.

Dung beetle are of two type – rollers and tunnellers. ***Rollers*** make a ball out of the surface dung of the pad, and roll it away from the pad and other beetles bury it in the soil. Seeds and any fly larvae are removed from the dung before the ball is formed. The weight of these balls can be up to 29 times that of the beetles. In contrast, ***tunnellers*** construct rest chambers in tunnels under the dung pad where they knead the dung into a ball, laying an egg in each ball. The male dung beetle buries the female dung beetle with the dung where she lays an egg before flying to fresh dung. Dung beetles tend to be most active during spring, summer and autumn. Only two species in Australia actively work during winter.

Dung is buried so rapidly that nitrogen in the dung is converted to a form that can be used by plants. For some species, forty beetles can break down a pad containing one litre of dung in less than six hours. The tunnels produced by the beetles increase soil aeration and water infiltration, improving plant root penetration in compacted soil areas. Overall, this process improves the structure of the soil.

Another important role played by dung beetles is reducing the potential for certain types of flies to breed, for example bush and buffalo flies in Australia. Up to 3000 bush fly larvae can mature in a single pad of cattle dung. Dung beetles break up the dung pads well before the larvae mature, preventing them from developing normally. Not all flies however lay their eggs in dung, such as those causing fly strike or common house flies, which breed in 'struck' sheep and decomposing material respectively.

Thirdly, dung beetles combat internal parasites such as the brown stomach worm, round worm and barber's pole worm, by breaking their life cycle, as these parasites require dung for larval development.

In addition to native species, 52 species of dung beetle have been introduced into Australia from Africa and Europe during 1968-91. Of these, at least 29 species have survived. The introduced species were carefully selected so their periods of activity complemented each other and that they did not compete with endemic species.

Dung beetles, however, are threatened by some types of drenches, used for controlling internal parasites, namely the avermectin containing drenches. These drugs are only partially metabolised as they pass through the animal's gut and are excreted in their faeces. These residues in the faeces can still be toxic to some dung beetles. The first generation avermectin group (ivermectin and abermectin)

Recent research has shown that moxidectin, a second generation avermectin, has little or no effect on dung beetle populations. Experiments have also shown that dung beetles tend to bury dung pads which contained little or no avermectin while leaving the dung pads with higher concentrations of the chemical.

Considering the native fauna of the Falklands, it is unlikely that dung beetles are present in the Islands. Maybe we'll need them one day?

## FLYING DOGS

FIGAS have been extremely co-operative in transporting dogs using their plastic transport boxes and dog owners should be grateful for this service. There is one request that the Veterinary Service has for any dogs being sent to Stanley for treatment: could all dogs be sent with a collar and lead on. Wary and shy dogs in particular can be difficult to remove from the transport boxes.

THE DEPARTMENT OF AGRICULTURE ARE HOPING TO HOLD A SATURDAY OPEN MORNING AT THE DEPARTMENT ON 27TH MAY, 2000.

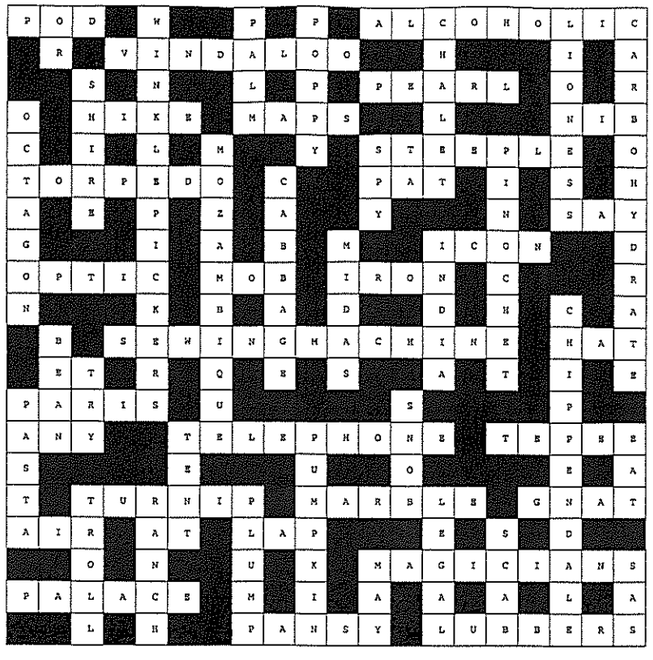
IF YOU THINK YOU COULD CONTRIBUTE TO THIS IN ANY WAY i.e. SOMETHING YOU HAVE GOT GOING ON THE INCENTIVE PLAN OR EVEN A STATIC DISPLAY OF YOUR FARM SO THAT PEOPLE IN STANLEY CAN SEE JUST WHAT IS HAPPENING OUT IN CAMP.

IF YOU ARE INTERESTED AND WOULD LIKE TO HEAR MORE, GIVE ME A CALL AS SOON AS POSSIBLE. ***Charlene***

***ANSWERS TO***

***LAST MONTH'S***

***CROSSWORD***




## RESEARCHERS DISCOVER NEW ELEMENT

*Source: Agricultural Science, Vol. 13 No. 1, 2000*

Rome, Italy - The heaviest element known to science was recently discovered by materials researchers.

The new element, tentatively named Administratium, has no protons or electrons, and thus has an atomic number of zero. However, it does have one neutron, 125 assistant neutrons, 75 vice neutrons and 111 assistant vice neutrons. This gives it an atomic mass of 312.

These 312 particles are held together in a nucleus by a force that involves the continuous exchange of particles called morons.

Since it has no electrons, Admininstratium is totally inert. However, it can be detected chemically, since it impedes every reaction it comes into contact with.

According to its discoverers, a tiny amount of Administratium caused one reaction to take more than four days to complete; the normal reaction time is less than one second.

Administratium has a normal half life of approximately three years, at which time it does not decay, but undergoes a reorganisation in which neutrons, vice neutrons and assistant vice neutrons exchange places.

Studies have shown that the atomic mass usually increases after each reorganisation.

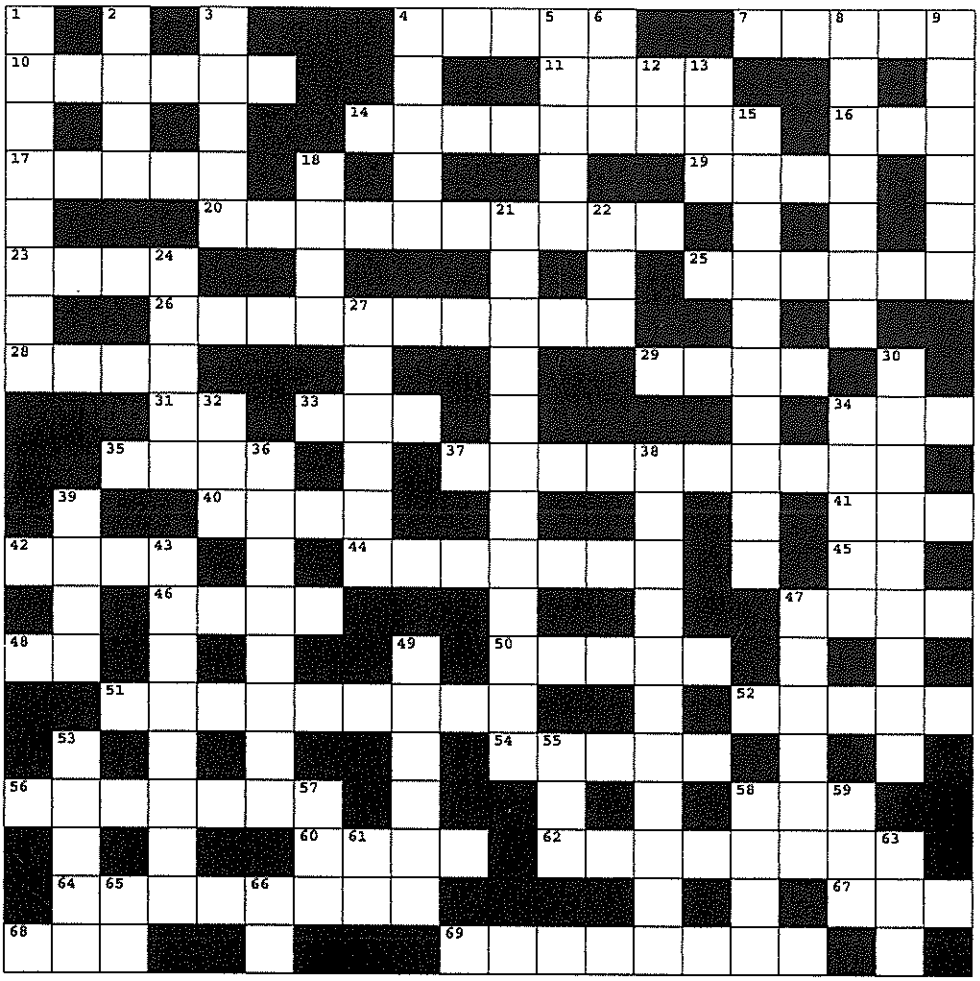
Research at other laboratories indicates that Administratium occurs naturally in the atmosphere.

It tends to concentrate at certain points, such as governmental agencies, large corporations and universities. It is always found in the newest, best-appointed and best-maintained buildings.

Scientists point out that Administratium is known to be toxic at any level of concentration and can easily destroy any productive reactions where it is allowed to accumulate.

Attempts are being made to determine how Administratium can be controlled to prevent irreversible damage, but results to date are not promising.

may



ACROSS

4. PASTURE
7. ATTEMPT TO WIN BY BREAKING RULES
10. A LEGUME
11. WIND LIKE A SPRING
14. THIN BROWN SAUCE
16. FIRRARM
17. EXCESSIVELY LARGE
19. JANUARY TO DECEMBER
20. CIRCUS FRONT MAN
23. WANT
25. WADING BIRD
26. FAMOUS PASSWORD PHRASE (4,6)
28. PRECIPITATION
29. DRAKE'S PARTNER?
31. ALTERNATIVELY
33. COW SOUND
34. PLANT FLUID
35. SMALL LIQUID AMOUNT
37. ORIENTAL EATING TOOLS
40. MANURE
41. APPROPRIATE
42. GAME-FISH OF FRESH OR SALTWATER
44. DRIED PASTURE STORAGE AREA (3,4)
45. TUBERCULOSIS
46. INFANT WHALE
47. ONE OF EQUAL RANK
48. CASTRATED BOVINE
50. ROMAN COUNTRY
51. WHITE
52. BEGIN
54. DIRT
56. A METHOD OF HARVESTING CASHMERE
58. BEHAVING BADLY?!?
60. CURVED CHURCH RECESS
62. SMALL ORANGE CITRUS FRUIT
64. PURPLE GEMSTONE
67. WITTY PLAY ON WORDS
68. NOSE INTO
69. CENTRE OF TARGET

DOWN

1. SHERRY GLASS AND MEASURE
2. SMALL SHELTERED BAY
3. DRAIN SYSTEM FOR HUMAN WASTE
4. STABLE HORSE WORKER?
5. PERFUME
6. DISTRESS SIGNAL
8. CARVE A DESIGN OR MESSAGE
9. NOT TOUGH
12. INFORMATION TECHNOLOGY
13. LAND TEMPORARILY UNDER PASTURE
15. MIRROR IMAGE
18. UNKNOWN AUTHOR
21. FARM UNIT OF REDUCED SIZE
22. FEMALE SHEEP
24. GIVER OF BLOOD
27. SHED
30. RUDE SOUNDING SOFT FRUIT
32. OLD MEASURE OF 16 AND A HALF FEET
34. WINGED FISH
36. LICENCEE
38. CAMP VILLAGES
39. TAIL-LESS CAT
43. WORD BOARD GAME
47. GOLF CLUB
49. BREAKDOWN EATEN FOOD
53. GRINDING TOOTH
55. CANE SPIRIT
57. HAPPY
58. CONTRARY GARDENER
59. PINCH A SMALL DRINK?
61. POSTSCRIPT
63. BOLT SECURING DEVICE
65. BELONGING TO ME
66. THE NEVER NEVER

# The Wool Press

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**All the regular features and more!**


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**AI PROGRAMME 2000/2001**
*By Jeremy Challacombe*

**WELFARE OF SHEEPDOGS**
*By Diana Berntsen*

**SOMETHING DIFFERENT FOR A CHANGE**
**&**
**CALCIUM AND PHOSPHORUS**
*By Sean Miller*

**INOCULATING LEGUME SEED**
**&**
**THE DREADED RLEM IS HERE.....**
*By David Parsons*

**DEPARTMENT OF AGRICULTURE**
**OPENING MORNING**
*By Mandy McLeod*

**ABATTOIR VISIT TO SOUTH DAKOTA**
*By Steve Pointing*

## WELFARE OF SHEEPDOGS

*By Diana Berntsen*

With winter here now, I think you should be giving some thought to how your dogs are kept during the coming months. If you expect the best out of them they should be looked after properly.

They should have access to a waterproof kennel, and ideally this should have a tin roof and a wooden floor. If they are caged they should be cleaned regularly, and their water should be checked daily, as with the cold weather this is likely to be frozen over.

All dogs should be given exercise under supervision on a daily basis, and they should be fed adequately everyday, and this should be with good quality meat, (not something that is so dried up they can't get their teeth into it).

All of the above is not impossible, and it doesn't take that much time out of your day.

## AI PROGRAMME 2000/2001

*By Jeremy Challacombe*

There has been interest expressed by a number of farmers in an AI programme for cattle for the next season. A number of animals on both the east and the west were inseminated earlier this year.

The success rate in the past has not been as high as we would have liked and we are investigating the possibility of bringing in an experienced AI technician for the forthcoming season in the hope that this will improve the returns of AI.

At the same time, we are putting together semen requirements for next season. We hope to have all the straws in the country by the end of October. In this regard, we need to have an order in place by mid August.

In order to spread the genetic diversity throughout the islands, we are looking to bring in straws of semen from a wide range of animals and a range of breeds.

If anyone is interested in participating in an AI programme, please could they let me know as soon as possible. If farmers could indicate what breeds they are interested in, and an estimate of the number of cows they would inseminate, I can find out what semen is available and get information back so that an order can be put together.

If farmers would like advice on breed or sire selection, please contact me and I would be pleased to help.

I can be contacted at Goose Green. My telephone/fax is 27354
I can also be contacted by email at the following address: jeremy.c@horizon.co.fk

## EDITORIAL

This has been an eventful month for agriculture and Camp with most subjects being covered well by the Penguin News and FIBS in their weekly editions. I'm not going to bore you repeating the same 'old' news but on behalf of the Department of Agriculture I pass on our regrets on the sad loss of Robin Lee and our sympathy to family and friends. As we all know, a large part of Robin's life was involved in agriculture and the Camp community. His contributions to both will be sorely missed.

Since some of the Department staff have resided at Goose Green, there has been an annual 'indoor sports' challenge between Agriculture and the aforementioned settlement folk. From the start (this being the 3rd year I think) the sport has been darts (although we might challenge them to something else next year). Goose Green have been victorious in the past with the 'HORNS' trophy being elusive to us. However, it was our turn this year although it was a very closely fought battle. It was nail-biting stuff right to the last dart, thrown by James Wallace who, together with Spud, gave the audience a marathon and amusing match to watch. Our thanks go out to everyone at Goose Green for making it such a good fun night (right through to dawn). See you next year.


### THIS MONTHS CONTRIBUTORS

| | | | |
|---|---|---|---|
| Sean Miller | Sheep Nutritionist | Mandy McLeod | Farm Management & Training |
| Cameron Bell | Veterinary Officer | David Parsons | Legume Agronomist |
| Diana Berntsen | Hydatid Officer | Steve Pointing | Veterinary Officer |
| Jeremy Challacombe | Beef Specialist & Advisor | | |

# SOMETHING DIFFERENT FOR A CHANGE

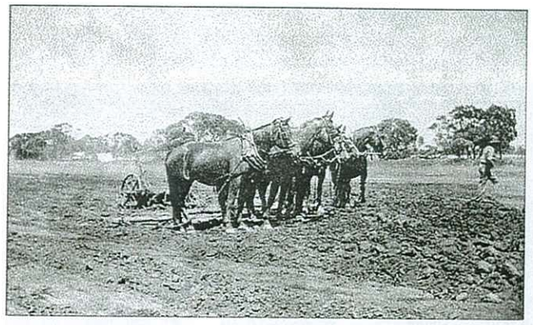
*By Sean Miller*

For something totally different this month, and having being asked many times over the past few years what my farming background was back in Australia I thought I'd go off the beaten track and show you around 'our place'.

My family farms in north-west Victoria at a place called Swan Hill. Mild and dry in winter, and hot and drier in summer pretty well sums up the climate. Summer days are mostly 35 to 40 degrees, and winter 12 to 15 degrees. The saving grace is that it is on the Murray River, Australia's largest, and the agricultural lifeblood of 3 States. All along the river irrigation is the key to high productivity for everything ranging from rice, cereal grains and fruit, to sheep, dairy cattle, almonds and olives.

Naturally, our farm is also an irrigation block. It's only 125 acres but it has the potential to feed more than 2,500 sheep. Hard to imagine? The key is the pasture. The farm is sown to lucerne (alfalfa as the Americans like to call it), also known as the 'king of fodders'. The warm winter temperatures, and the ready availability of water to irrigate the lucerne during summer means that 20 tonnes of lucerne per hectare per year is easily achieved.

Lucerne is actually a legume. There you go, this is a story about legumes after all! Unfortunately for the Falklands, well for the immediate future at least, lucerne doesn't particularly like acid soils, but as those of you who went on the trip to Punta Arenas in 1998 will have seen, it grows exceptionally well there, so with the development of calcified seaweed deposits in the future and a steady rise in soil pH, who knows?



What does the lucerne feed? The number one priority are the horses! 'The family business' has been Thoroughbred breeding for about 60 years - started by my Grandfather who's interest in horses went hand-in-hand with the Clydesdales and Percherons he, his father and brother used to work their 5,000 acre wheat farm with (see photo – taken by my Grandmother just after the war in about 1948) about 100 miles away from where we now farm.

Eight brood mares form the basis of the business, and we try and sell at least 5 or 6 yearlings each year. We usually end up keeping one each year to race ourselves as well. The mares are sent to stud each year about a month before they are due to foal. They foal-down at the stud and are put to the stallion on their foaling heat, and again later if they don't conceive immediately. They stay at stud until they are confirmed in foal at about the 3 week-in-foal stage (pregnancy is diagnosed by an ultra-sound scan in the same way as hospitals do for humans). The pregnant mare then comes back home with her new foal where she spends the remaining 8 to 10 months. In terms of timing, mares are usually foaled during late August, September or early October. Since the common 'birthday' for Thoroughbred horses in the southern hemisphere is August 1, we aim to be within 8 weeks of this date; any longer and the yearlings would be too small to sell realistically at the subsequent yearling sales. Since mares gestate for about 11 months, the inevitable happens and mares miss becoming pregnant at their first and second services. When this happens, the mare is not mated that year so that she can come back into line for early foaling in the following year. In practice, each mare produces either 2 or 3 foals every 3 or 4 years, respectively.

The foals are weaned in May (about 8 months), and during the weaning period they are stabled and handled daily, and introduced to 'hard-feeds'. They head back out to the paddock after about 4 weeks and then are brought back into the stables in December/January. The annual yearling sales commence around Australia during February and continue until the end of March. Depending on which sale we are aiming for, the yearlings are prepared intensively over the 2 months just before the sale. This entails a light to medium workout in the lunging yard each day, and a fully-fed ration.

From weaning onwards, handling is an important part of their development. They are taught to lead, their feet are picked up and trimmed regularly, and they are taught to load onto the float (horse box). They are not broken-in before being sold. After weaning and until the yearlings are sold, they receive very high quality feed, both in the form of pasture (in this case lucerne), and a high energy, high protein supplement. This ensures they get the best possible start during this early development period. A big advantage of the lucerne as their basal diet is the very high concentration of calcium in the plant. With 3 or 4 times as much calcium as grass, and about double that of most clovers, the fast growing horses are assured of adequate calcium to develop their all important bones.

By the time they are sold they are 17 to 18 months of age. The common route for yearlings is then to be broken in after the sales, the biggest will then begin training and head into the 2 y.o. racing season which generally starts in October the same year.

So is it worth it? Financially, there are plenty of costs along the way; stallion fees range from £1,000 to £5,000 per mare (studs do discount for 2 or more mares!), agistment fees, vet fees, farrier's charges, etc.. But in return, depending on breeding, sex and the 'look' of the horse, yearlings sell for between £5,000 and £20,000. The 'intangible' reward is seeing the horses develop and race across the country. Various breeding incentive schemes also mean that when the horses you sell win selected races the breeder gets a share of the prize money, so the incentive to breed good horses continues!

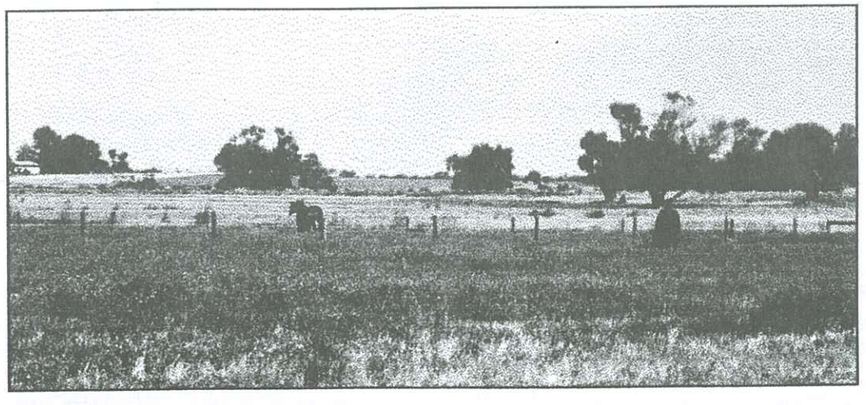
As a point of interest, the Thoroughbred industry in Australia generates about $6 billion Australian dollars each year (~£2.4 billion Sterling). By comparison, the wool industry is now worth less than $1 billion Aussie dollars annually.

The other animals lucky enough to score some feed are a flock of Poll Dorset sheep. These 'meat Ferraris' make up the majority of terminal sires used in the meat industry in Australia. Typically, farmers will mate first cross Border Leicester * Merino or Corriedale ewes with a so called 'terminal sire'. These terminal sires, as the name suggests, produce high yielding, fast growing lambs destined for the dinner table.

We mate about 200 ewes each year and produce flock rams for farmers producing lambs for the domestic and export meat trade. Lambing rates are high with these sheep (120%+), partly because of the breed, and plenty because of the good feed.

About 80 rams end up making the grade as flock rams good enough to sell. Come sale time (lambs are born in autumn – as close as possible to April 1 which is the day before which registered Poll Dorset stud lambs are not allowed to be born - and sold the following October), the now 18 month-old rams average about 80kg liveweight.

So there you go; a little light (hopefully interesting) reading.



# INOCULATING LEGUME SEED

*By David Parsons*

What's all this business about? Legumes, rhizobia, inoculating, lime coating. Hopefully after reading this article, you'll realise that it's not too difficult at all. All the farmers who attended the recent course had a chance to either have a go, or see how easy it can be. As the old saying goes, "If all else fails, read the instructions".

All plants require the nutrient nitrogen to grow. Legumes, such as clover, work together with a special type of bacteria called *Rhizobia* to obtain nitrogen from the air and put it into the soil to be used for growth. The nodules that form on the roots of legumes are little factories where nitrogen is produced. If you haven't yet dug up a clover plant to take a look at these nodules it's about time you did.

It is no exaggeration to say that the rhizobia are just as important as the plant itself. If the rhizobia are not there, the legume will not grow well, and will either die or be non-productive. In the Falkland Islands, because we do not have any native legumes, we also do not have any native rhizobia. So if we plant legume seed without providing the rhizobia, we are giving the legume plant very little chance of survival, and NO chance of ever being productive. The process of adding large numbers of rhizobia to the seed before planting is called *Inoculation*, something that anyone can do easily with a few pointers in the right direction.

**The Ingredients**

- Legume Seed – The size of the seed determines the amount of ingredients needed (see Table 1).
- The Inoculant –The inoculant looks like finely ground peat (which it is), but it is more than just that. Each gram of inoculant contains millions of rhizobia, the special bacteria that legumes need. Every type of seed needs its own specific type of rhizobia (see Table 1). For example lupins use Group G.
- Glue – The glue has a number of functions. It helps stick the rhizobia on to the seed, it protects the rhizobia, and it also helps the lime stick to the seed to cover everything. Methyl cellulose, which also goes by the simpler name of wallpaper glue is recommended, and is easily made up from glue powder and water.
- Lime – Coating the seed with lime is recommended for acid soils such as found in the Falkland Islands. The lime makes the soil less acid, immediately next to the seed, and helps both the plant and the rhizobia to grow. The lime has to be extremely fine, otherwise it will not stick effectively to the seed. In addition the pH of the lime cannot be above 8.5 (highly alkaline), otherwise the rhizobia will not survive. Slaked lime, builders lime and cement cannot be used, as they are too alkaline. Ground limestone for the garden is too coarse and should not be used. Of the materials that we have used, an extremely fine lime called "Microfine" seems to be the best. "Artex" can also be used at reduced rates. Talc and Mica are two substances that also hold some promise as coating materials.

**Methods**

The two main methods of inoculating legumes are lime coating and the slurry method.

**Lime Coating**

Use Table 1 as a guide to the right amount of ingredients to use. The whole process can be done in any appropriately sized container, such as a bucket, or wheelbarrow. A cement mixer can also be used.

1. Weigh everything out.
2. Mix together the right amount of glue (1.5%) and rhizobia (inoculant). A syringe is useful for adding the right amount of glue. Use a spatula or your hand to break down all the lumps to form a thick black paste.
3. The seed is added, and mixed with the glue/rhizobia until the seed is evenly coated and appears shiny.
4. The lime is then added in one lot, and mixed until all the seeds are covered, there are no clumps of seed, and there is little excess lime.
5. Spread the seed out in the shade on a tarpaulin or plastic sheet to allow the seed to dry.

**Slurry Method**

This method is used for some legume such as lupins. It is the same as the lime coating method except that a 0.5% glue solution is used, and step 3 (adding lime) is not done.

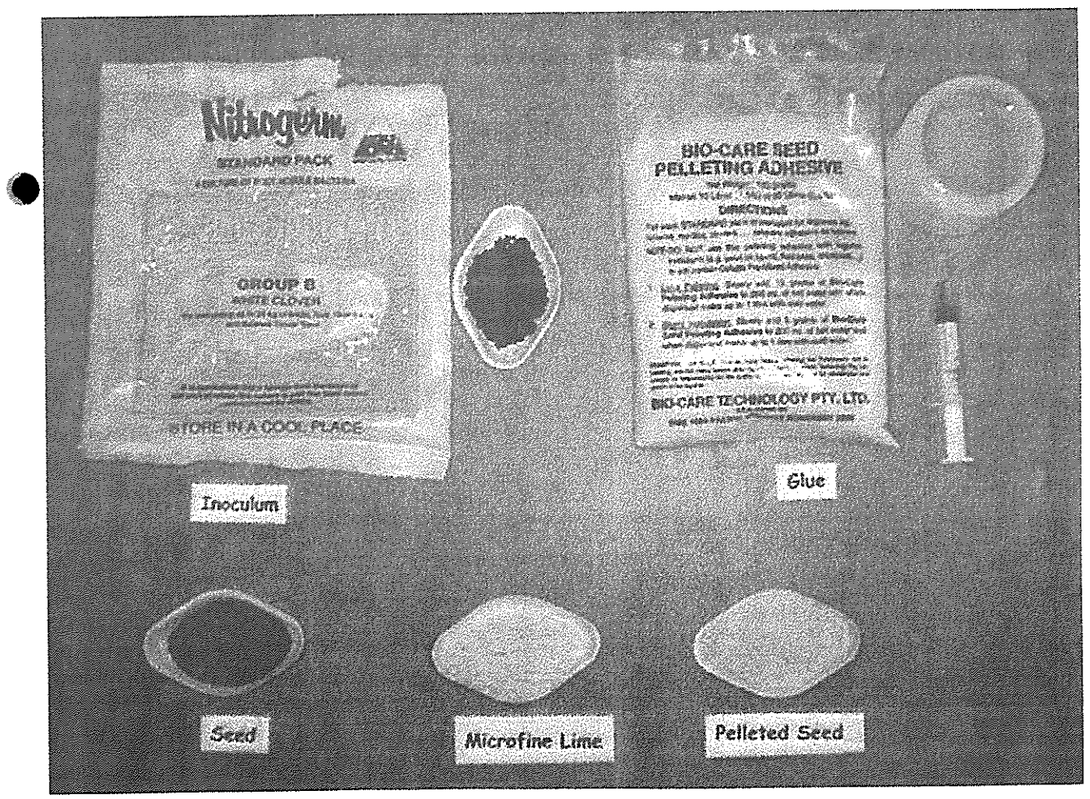
**Important Points and Precautions**

- Packets of rhizobia should be stored in the fridge (ideally 4°C), but <u>not</u> frozen.
- Rhizobia should be used before the expiry date shown on the packet.
- It is best not to store half-used packets, as it may deteriorate through contamination and drying out. Over-inoculation is not harmful.
- Direct sunlight must be avoided on the culture and during inoculation and drying of the seed.
- Use rainwater with inoculum, to avoid chemicals.
- It is important to get the ingredient amounts correct, as small differences can cause big problems.
- Don't mix the pelleted seed with fertiliser, (except lime or rock phosphate) or any type of chemical.
- Pelleted seed should be used immediately after treatment to achieve high nodulation.
- Application of fertiliser nitrogen (N) should not exceed 10kg N/ha for new legume sowings

**How much does it cost?**

The major cost of inoculating legume seed is the postage on the packets of inoculum. At A$2.20 per packet (less than 1£), the inoculum itself is very cheap, especially considering that one packet is enough for 10 to 100 kg of seed, depending on the type of seed. The costs of the glue and lime are very minimal. An approximate cost of inoculating one kilo of white clover seed is 15p, which translates into 30p per hectare of re-seed. In other words you can't afford <u>not</u> to inoculate legume seed.

Although this all may at first sound complicated, after you have done it once you will realise how easy it is. If you are unsure about anything here, or need information on inoculation or legumes then give me a call.



## Table 1 - Ingredient Rates* for inoculating legumes in the Falkland Islands

| Scientific name | Common name | Inoculant Group | Other Info. | Inoculant Rate (g/kg seed) | Glue* (ml/kg seed) | Coating material (g/kg seed) |
|---|---|---|---|---|---|---|
| *Lotus corniculatus* | Birdsfoot trefoil | Birdsfoot Trefoil | | 25 | 40 | 500 |
| *Lotus uliginosus* | Lotus | D | | 25 | 40 | 500 |
| *Lupinus angustifolius* | Narrow-leaved lupin | G | | 2.5 | 10 | 0 (slurry) |
| *Lupinus arboreus* | Tree lupin | G | | 5 | 15 | 0 |
| *Lupinus luteus* | Yellow lupin | G | | 5 | 15 | 0 |
| *Lupinus polyphyllus X* | Russel lupin | G | | 5 | 15 | 0 |
| *Ornithopus compressus* | Yellow serradella | S | seed | 5 | 20 | 0 |
| | | | moistened pods | 2.5 | 15 | 0 |
| *Ornithopus sativus* | Pink serradella | S | seed | 5 | 20 | 0 |
| | | | moistened pods | 2.5 | 15 | 0 |
| *Ornithopus X* | Hybrid serradella | S | seed | 5 | 20 | 0 |
| | | | moistened pods | 2.5 | 15 | 0 |
| *Trifolium ambiguum* | Caucasian clover | Caucasian clover | normal rate | 10 | 27 | 338 |
| | | | 5X rate* | 50 | 36 | 338 |
| *Trifolium dubium* | Suckling clover | B | | 10 | 40 | 500 |
| *Trifolium hybridum* | Alsyke clover | B | | 10 | 40 | 500 |
| *Trifolium incarnatum* | Crimson Clover | CS | | 5 | 20 | 250 |
| *Trifolium pratense* | Red clover | B | | 6.8 | 27 | 338 |
| *Trifolium repens* | White clover | B | | 10 | 40 | 500 |
| *Trifolium subterraneum* | Subterranean clover | C | | 5 | 20 | 250 |
| *Vicia sativa subsp. nigra* | Black vetch | E | | 5 | 20 | 250 |

*Notes: These rates are only a guide - some minor adjustments may be made.
0.5% glue solution is used when using a slurry with water and 1.5% glue solution when lime pelleting.
The higher rate of inoculum for Caucasian clover can be used to increase the chance of successful nodulation.
"Artex" can be used as the coating material at approximately 2/3 of the rate

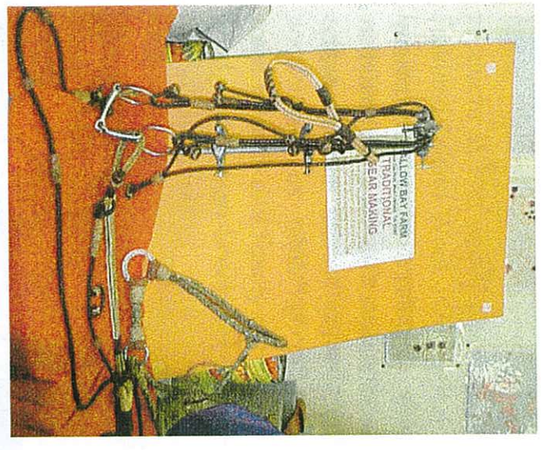
D. Parsons 8/4/00

# DEPARTMENT OF AGRICULTURE OPEN MORNING

**A report by Mandy McLeod**

On Saturday morning at 10 am on the 27th May, the doors of the Department of Agriculture opened up to the public. It started out as an idea to give the Stanley folk an opportunity to see what we get up to on top of the hill, but soon developed into a mini exhibition of not only the skills and expertise of various people and sections of the department, but also showed a wide range of activities from the farming and rural community.

There were displays of all kinds, many being extensions of peoples hobbies that have developed into marketable products. Some were directly 'agricultural', whereas others were marginal, but all are intended to provide a supplementary income to sheep farming. Where people couldn't make it to promote their own products, the likes of Charlene and I manned the stands. Interest from the public was fantastic, far better than we could've imagined. Everyone I spoke to was amazed to learn about all the different little ventures that are underway and comments like 'I didn't realise someone sold these' or 'made those' were in abundance. We didn't actually do a head count, but I reckon there must have been at least a couple of hundred visitors in the four hours the doors were open. I took a few digital photos and I hope they will give you some idea of the range that was on show.



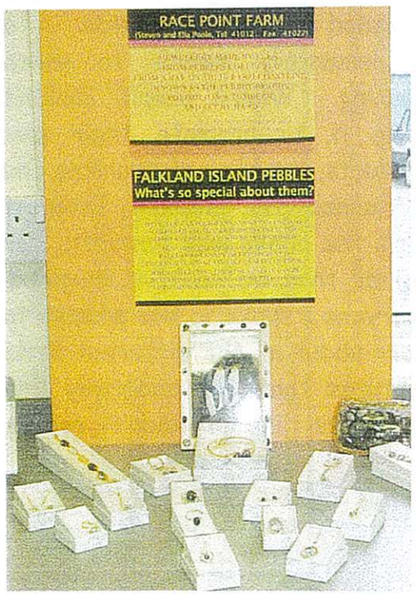

Paul and Dae Peck from Shallow Bay came in to show Paul's beautiful workmanship in his gear-making skill. I've been told that goods of this quality would sell for hundreds of dollars to tourists (just to hang on the wall!!). Lyn Blake had a display of products from her Suffolk sheep, ranging from meat cuts to lambskins. In the bottom left of the photo you can see 'Spring Point' water in 2

litre and 500 ml bottles. This is an enterprise that Ron and Fiona Rozee are developing. They also had lambskins on display.

Judy Summers is one of many visitors who showed an interest in the sheepskins and mineral water from Spring Point.

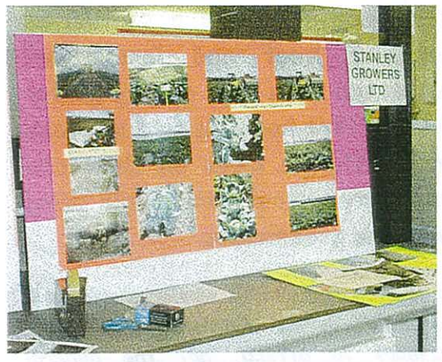
The following photo shows the wide selection of jewellery and souvenirs sent in by Sharon Marsh of Rincon Ridge Farm. She makes them from Falkland Island pebbles that she collects and polishes. The interest for these pebble products was fantastic.


The fact that there were two producers didn't seem to matter as both had unique styles and settings with equal popularity from the visitors. Ella Poole of Race Point Farm who also collects, polishes and sets them herself sent in the second 'Pebble' display. Ella's pebbles are actually collected from a beach on their Farm on East Falkland.





Mel and Val Lloyd came in and had their own display. They were accompanied by 'BABE' for the guess the weight of the piggy competition – won by Peter Goss. They had photo's showing many of the different activities that go on at Swan Inlet including horse riding. There was also cooked pork (salted and normal roast) for tasting (complete with apple sauce).




Tim Miller set up a display of Stanley Growers produce which showed the growth and range of the Enterprise. Ali and Marlene were in town displaying a small selection of the trees they grow at Shallow Harbour. The Eucalyptus trees in particular aroused a lot of interest


Diane Towersey makes the felt products in the above photo from Falkland Island Wool. Oven gloves in natural wool colours with matching fragrant pot stands are a unique and useful gift idea, particularly as most of us have some friends and family abroad. A good, light, 'non-breakable in the post' type present.

A couple of years ago, Ian and Susie Hansen started keeping miniature horses by importing their first breeding stock to Main Point from UK. They have since had numerous foals born to the troop and have imported more breeding animals. They have had a lot of expressions of interest from people wanting to buy young Falkland bred horses from them. They recently had a beautiful appaloosa marked colt born to a mare that was in foal when she arrived in the Islands and they hope to breed from him with the hope of continuing the coloration.


There were so many displays that I'm afraid some of you are going to be disappointed that you haven't got a photo, but I at least hope to mention everyone or their product. Please accept my apologies if I do miss anyone out. Fred Clarke showed an assortment of his engraving skills and Rosemary Wilkinson had a fine display of yarns and knitwear as well as her Internet web site.

Pat Marsh from Lakelands Farm on West Falkland sent in a small display of souvenirs that she hand decorates, including wooden spoons and greetings or message cards.


I am just about to run out of space, so I will conclude with a list of other exhibitors and displays. Arthur and Elaine Turner from Rincon Grande had a portable (ATV) electric fencing display. Aidan Kerr had posters and a video on shelterbelt and willow planting. Bobby and Lindsey Short bough in a couple of kids (of the goat variety). Barry Elsby had a photo poster and some samples from his fruit and tree enterprise. Maud McKenzie displayed some cashmere wool blends. Jeremy Challacombe (our beef man) had a section on cuts of beef and lamb, well supported by a high quality poster display. We had calcified seaweed and sphagnum moss on show and some interesting 'plant' work going on in the greenhouse.

***It is intended that a similar display will be held during farmers' week (for farmers to attend, not the general public, as the lab would get a bit overcrowded). If anyone has something they would like to show to other farmers, please contact Charlene Rowland at the Department as she will be co-ordinating the event and allocating space. See you there.***

## MONTHLY BEEF RECIPE

Yet another beef recipe for winter months. The following recipe is from the United States Cattle Today farmers cookbook. The beef cut used is chuck, minced. The location of chuck is shown below:

***THE LOCATION OF THE CHUCK***

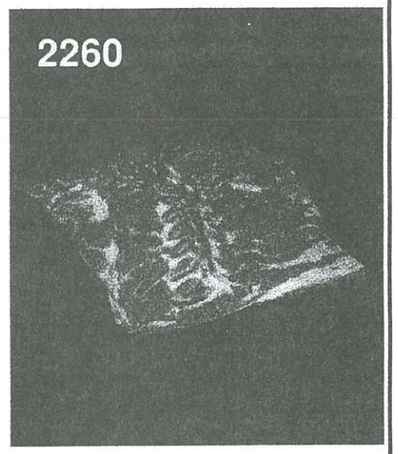
ITEM NO.
2260 (5-rib)
2261 (4-rib)
2262 (6-rib)

### CHUCK

Chuck is prepared from a forequarter by the removal of the rib set (item 2220) at the specified rib number. The shin and brisket, blade, chuck tender, bones, cartilage, ligamentum nuchae and lymph nodes are removed. The M. subscapularis (undercut) is left attached to the chuck.

**Points requiring specification:**

- Rib number required.
- Intercostals removed.
- M. subscapularis removed.




## BOSTON MARKET MEAT LOAF

**Meat Mixture**
2 kg minced chuck
½ cup finely chopped onions
½ teaspoon of garlic salt
¾ cup of diced tomatoes
¾ cup of plain bread crumbs
1 egg

**Sauce**
¾ cup of tomato sauce
2 tablespoons of sugar

Mix all the meat mixture ingredients together until well blended.

Place in a lightly greased bread pan and bake at 180 degrees celsius (350 F) for ¾hr.

Remove from the oven and drain excess grease from the pan.

Mix tomato sauce and sugar together and pour over the meatloaf. Place back in the oven to finish baking until done (about ½ hour depending on the oven).

## *LETTER FROM PHIL MIDDLETON*

**P.O. Box 146**
**Stanley**
**Telephone/fax: 21174**
**e.mail: philmiddleton@horizon.co.fk**

After attending the Agricultural Department sponsored open day on Saturday morning; followed by the dance in the Drill Hall that same evening, I could not help thinking that with a bit of lateral thought two major problems might have a chance of a solution. The farmers and local artisans need a place in Stanley to both work and display their craft, and the Drill Hall is up for demolition and removal.

Could there not be a way of combining the talents of the farmers in the close season by paying them to remove and resite the Drill Hall; and thereby providing a very useful building for their future use. Would this be a project that could be termed an incentive scheme, or a part of a diversification initiative?

The advantage to Stanley, would be the preservation of a useful historical building, that could be used in a great variety of ways for the benefit of the whole community.

The advantage for the local artisan would be a workshop and sales area where space would be available to demonstrate as well as directly sell their product.

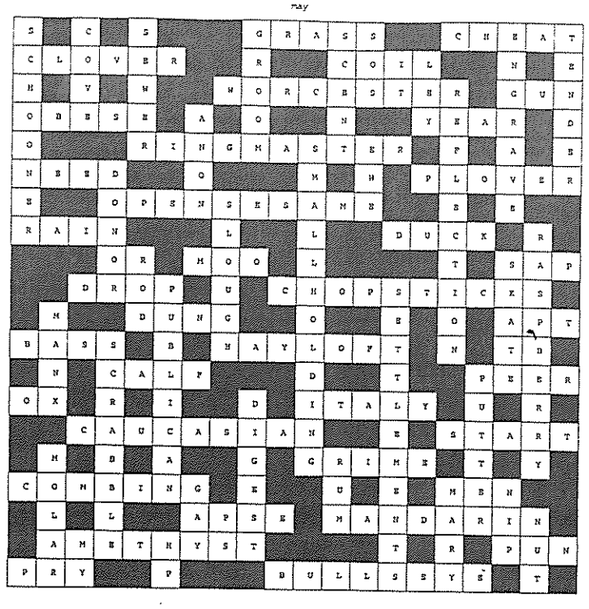
Given the right location, the hall would be on the tourist route, to provide another major stopping point.

If I had either the money personally or the means of obtaining the money I would undertake the project myself. Unfortunately having gone after two other properties that came on the market, I know I have neither. Perhaps therefore there is scope in exploring the group, or co-operative idea to push the scheme alone.

I would like to hear from anyone who can see a way of making progress. I would gladly take a personal stake in terms of time and effort, and I too can wield a hammer, but finances are another matter.

Yours sincerely, ***Phil Middleton***

## ANSWERS TO LAST MONTH'S CROSSWORD



## ABATTOIR VISIT TO SOUTH DAKOTA

***by Steve Pointing***

As you are probably aware I made up part of the team chosen to visit S. Dakota to investigate the suitability of a Swedish designed modular abattoir for the Falklands. The other team members were Councillor Richard Cockwell and Richard Baker, Deputy General Manager at FIDC. Our brief was to look at the design and construction of this modular abattoir and see whether it would fulfil the requirements set down by the EU to operate as an export approved abattoir.

The abattoir we visited was built by a Swedish company in a modular form and was designed to be mobile. The various units (slaughterhall, processing units etc.) can be moved around on the back of a lorry and can be set up where the slaughtering is due to take place. In Sweden these units are mainly used in the far north of the country where they are used for the slaughter of reindeer. It was not envisaged that the mobile units would be used in the Falklands (transport and road problems) but a fixed version of the same design was an option.

The plant visited in South Dakota was set up on a Sioux Indian reserve. It was three years old and although potentially mobile had been set in a "fixed" position for the duration of its life. The local Sioux community had purchased it (with Government aid) to process Bison for both the local and wider US market. Apparently the plant had been approved by the US Dept. of Agriculture although on further questioning no officials from this department ever appeared to be present when killing and processing took place (this would have been essential for meat for export). In fact during its 3 year lifespan only about 200 bison had been processed through the plant. It was hardly surprising, therefore, that the abattoir and cutting facilities appeared almost as good as new.

The killing of Bison is a seasonal event and we were in S. Dakota too early in the year. The Indians did, however kill one beast for us so that the abattoir could be seen in operation (albeit in a rather artificial way).

I think we were all impressed by the very high standards of construction and the ingenious design to enable everything to fit into such a tight space. For me this was one of my chief concerns. In my opinion this type of abattoir would cope well with a relatively low throughput such as was happening in S.Dakota and probably is the case in N. Sweden. I could, however, foresee problems if the throughput increased. The lack of space would have had the potential to affect both operational and hygiene procedures and while these might not have proved insurmountable I think they would have led to frustration and difficulties in the long run. It was mainly for this reason that we all decided that this option was not the best for the Falklands and this has been accepted by the Chief Executive and others since our return.

Currently we are looking at a more conventionally designed abattoir built in the UK which would appear to be much more promising. There are existing abattoirs built to this design already operating in the UK and in several developing countries around the world. They have been designed to meet the required EU legislation for export approved abattoirs and can be custom built to meet the size requirements for the envisaged throughput of animals in the Falklands. With so many setbacks over the past 10 years I am reluctant to say that this could be the one - but it is certainly the most promising option from the many designs that have been considered.

## The Dreaded RLEM is here....

The what? - The Redlegged Earth Mite. The Latin name of this beastie (*Halotydeus destructor*) gives a bit of a clue as to what it is capable of, and it is unfortunately too common around the world. A mite is a tiny creature, closely related to insects and spiders.

**Description**
As long as you have good eyesight, it is easy to identify. The fully-grown RLEM is about the size of a pinhead, has a velvety black body, and eight bright orange-red legs. Its name sums it up really!

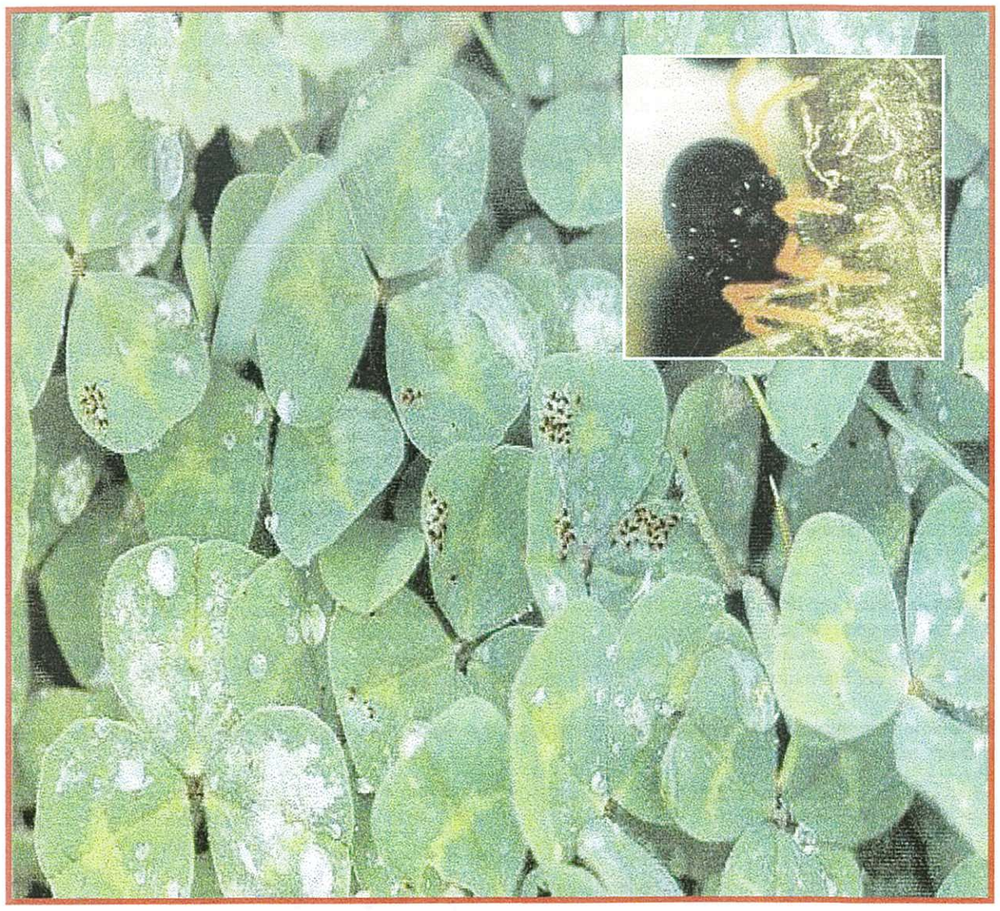
**Damage**
- The damage caused by RLEM is a silvery discoloration of plant tissues, caused by air replacing the sap at the site of feeding. The damaged tissues eventually turn brown, wither and die.
- Legumes are the most seriously effected, however certain vegetables are also attacked.
- Grasses and cereals are not normally seriously effected.
- Mites compete with sheep for clover food. About 12,000 adult mites in one square metre of a paddock are estimated to eat about the same amount of food as one sheep per hectare!

In Australia, RLEM are pasture pests from autumn to spring, with their numbers declining during hot summer temperatures. The main threat is to newly establishing pasture – RLEM can decimate a new pasture. In the Falklands, our main sowing time for legumes is in the spring, but our temperatures are very different to Australia. It is unlikely that spring temperatures will be warm enough to pose any threat to newly sown pastures. RLEM were first noticed at Brenton Loch during summer months, feeding on White clover, Alsyke clover and Caucasian clover. No damage was found on lotus plants in the same re-seed.

**Control**
- In Australia, sprays are used at strategic times to control numbers. This is not a path that we would like to go down in the Falklands, and it is unlikely that it will prove necessary.
- If RLEM does pose a problem, there are other ways that will control their numbers. Firstly, if the pasture is grazed short before winter, the number of eggs that survive the winter will be reduced, and numbers will be slower to build up over summer.
- Secondly, sowing legumes resistant to RLEM is a good way of minimising damage.

**What can I do?**
- The best advice is to watch what is happening to your re-seeds – constantly monitor their progress. This coming summer have a look for the silvery damage caused by the mite, and if your eyesight is good enough, look for the mite itself.
- The mite may not do enough damage in the Falklands to warrant doing anything. For now we need to be aware that it is there, and keep an eye on its impact.

## The Redlegged earth mite
## Damage to clover leaves



## OFFAL INSPECTIONS

***By Diana Berntsen***

I would like to remind all those farms of which I have still not inspected the recommended 100 sets of offal, I would still like to do so. Please get in contact with me as soon as you have any available for to inspect (it does not matter how small the quantity) I will come and visit. I can be contacted on telephone 32296 any time, if I am not at this number please leave a message with the General Office in Stanley on telephone 27355.

# CALCIUM AND PHOSPHORUS

*By Sean Miller*

You've heard a lot about calcium and phosphorus lately, particularly for legumes. It's also true that calcium and phosphorus are equally important for animals.

Have you seen this before? Bone chewing is a sign of a phosphorus deficiency in cattle.

Equally so, a lupin plant with red leaves is also a classic symptom of a plant with a phosphorus deficiency.

In other words, both plants and animals can show distinctive signs of the same 'disease'.

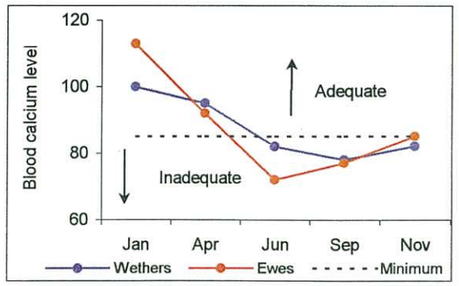
From my work over the last few seasons in the Islands, there are some very clear events taking place that are severely affecting animal production and which are linked directly to calcium and phosphorus supplies in pastures.

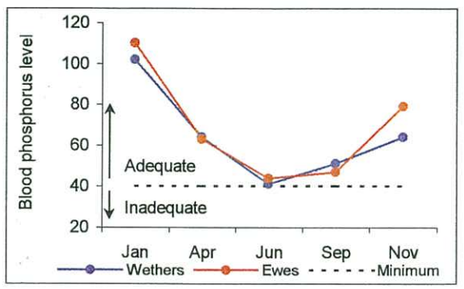
*Getting to the root of the problem*

Unfortunately, diagnosing calcium and phosphorus deficiencies is not an easy task. Not all cattle chew bones, some cattle chew bones out of curiosity, as in fact they often do with diddle-dee when they are being moved, sheep rarely chew bones in response to a phosphorus shortage, subjective assessments such as *"the cows look a bit stiff"* owe more to myth than science, and actual physical samples from the animals (blood, faeces and urine) often don't accurately reflect what is going on inside the body, either because of the way in which the samples were taken, or because the body is compensating for a deficiency by using its natural stores of the minerals in their bones.

Moreover, sheep are not affected to the same extent as cattle by calcium and phosphorus deficiencies. Since both calcium and phosphorus are stored in the bones, and since cattle have more body-to-bone than sheep, there is relatively less Ca and P in 'store' for cattle than for sheep. Hence, if you have cattle running together with sheep, cattle are more likely to show a deficiency than the sheep in the same paddock.

So what is happening in the Falklands? The following graph shows the trends in calcium and phosphorus blood supplies in hoggets during their first year of life.




By contrast, blood samples taken from cattle at Brenton Loch during 1998 indicated that the cows were all in good phosphorus and calcium health. The 'normal' blood calcium and phosphorus results from the cattle probably reflect the extra minerals they were able to select from the feed blocks fed to them during winter and spring.

*The take-home message*

I think we can say with confidence that both calcium and phosphorus have seasonal affects on animal welfare. During summer and autumn, sheep and cattle are unlikely to suffer from calcium and phosphorus deficiencies to an extent that affects production. By contrast, during late autumn, winter and spring, both calcium and phosphorus can drop below 'safe' levels and have effects severe enough to impair growth and development of young and pregnant animals particularly.

*Why so?*

The most important factor is diet, or more precisely, the change in diet. The diet studies that we've now finished and that have been focused on both young sheep, and pregnant, non-pregnant, and lactating cows are beginning to show a change in what plants are eaten by the animals during the year, and that the quality of the nutrients provided by plants changes.

During late spring, summer and autumn the animals are eating much more of the finer grasses which are higher in calcium and phosphorus. During winter, the animals rely heavily on whitegrass as the major feed, which is naturally low in both nutrients.

*What can we do about it?*

The dilemma is whether to feed calcium and phosphorus to the animals, or to the plants and let the animals feed themselves.

*Feeding the animals*

Under normal conditions where paddocks are large and dominated by whitegrass, applications of fertilisers such as rock phosphate and calcified seaweed would do little to improve either plant or animal performance. Thus, supplementation with feed blocks or loose mixtures fed in troughs is the most economical way to boost these minerals in animal diets. The feed blocks that we've been developing and testing at Goose Green recently are specifically designed to combat this problem. We hope to have some conclusive information for sheep later this year when we carefully monitor some pregnant ewes receiving these supplements.

*Feeding the plants*

When it comes to reseeds, fertiliser applications of rock phosphate and calcified seaweed are the way to go. The plants in these pastures respond vigorously to both calcium and phosphorus, and they can then in turn boost animal production.

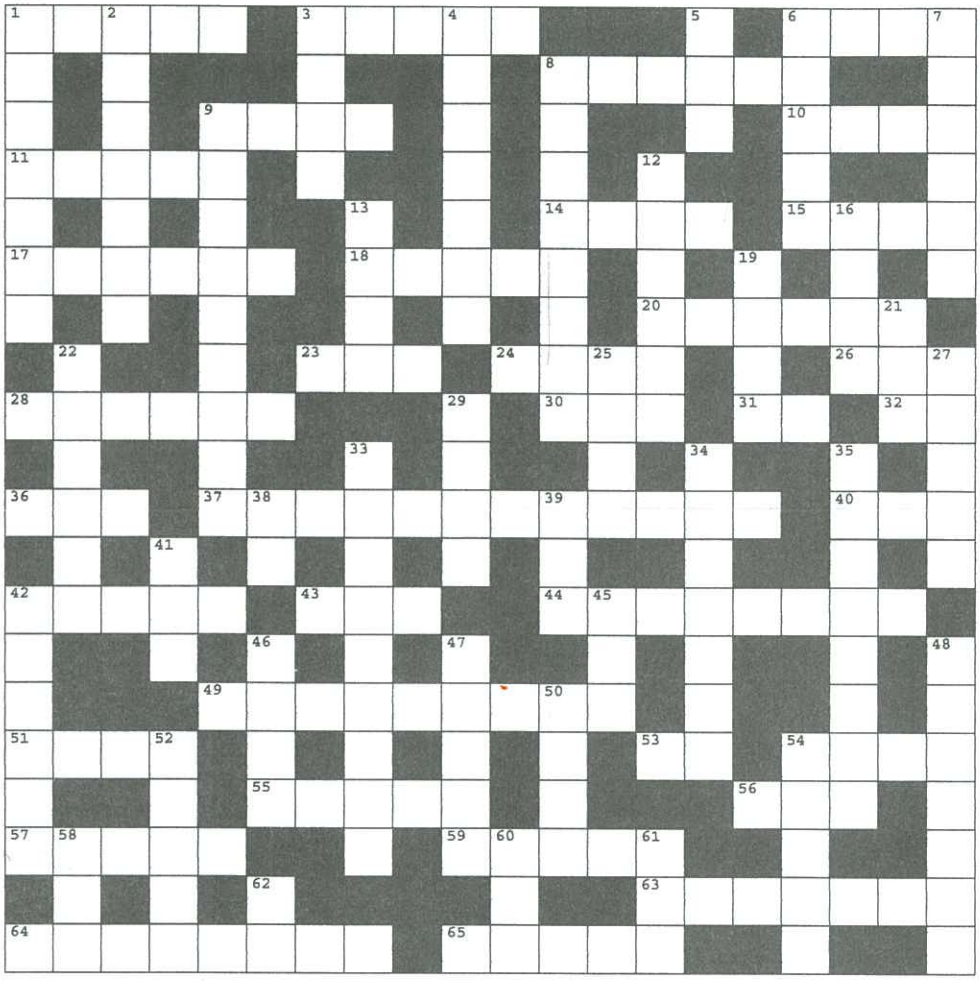
*The Pasture Improvement Programme*

As you can easily conclude from above, well maintained and fertilised improved pastures will offer much to the important young and breeding animals, both in terms of improved calcium and phosphorus supplies, but in energy and protein terms as well.

Taking up the reseeding options available under the Programme is a great opportunity to begin to redress these imbalances.

**Effects of calcium and phosphorus on production**

| Mineral | *Needed for ...* | *If deficient ...* |
|---|---|---|
| Calcium | Sound bones and teeth<br>Muscle contractions<br>Blood clotting<br>Hormone secretion<br>Messenger systems in body cells | Brittle and bent bones<br>Enlarged joints<br>Reduced growth<br>Reduced milk production<br>Muscle tremors<br>Depressed appetite |
| Phosphorus | Energy metabolism<br>Bone formation<br>Regulation of acidity/alkalinity in the body<br>Essential element of DNA | Reduced growth<br>Soft bones<br>Reduced reproductive rate<br>Depressed appetite – poor conversion of feed to energy |



ACROSS

1. COAST AREA
3. CELEBRATION ACTIVITY
6. SHEARING BUILDING
8. WOOL MEASURMENT
9. WAN
10. SOFT GEMSTONE
11. SOUTH AMERICAN PACK ANIMAL
14. FIXING SPIKE
15. DEVIOUSLY SCHEME
17. MAIN WOOL OFF A SHEEP
18. CHANGE TO SUIT NEEDS
20. SMALL POULTRY BREED
23. STANLEY TRAVEL AGENT
24. EXPLOSIVE DEVICE
26. LARGE RODENT
28. WALL HANGING
30. RELIGIOUS WOMAN
31. ALONGSIDE
32. PUBLIC RELATIONS
36. NOT WELL
37. RACEHORSE
40. FLIGHTLESS BIRD
42. BIRD ROOST
43. THE BEST
44. AFTERBIRTH
49. SHED WORKER
51. A NECESSARY REQUIREMENT
53. BELONGING TO ME
54. SWIMMING PLACE
55. UNDERWATER RANGE SOUNDING DEVICE
56. COALMINE
57. SINGING GROUP
59. IRON
63. IMMEDIATE
64. BURIAL PLACE
65. COOKS PROTECTIVE COVER

DOWN

1. AN OFFICER OF THE COURT
2. AMUSEMENT AND GAMBLING PLACES
3. SKIN
4. RAF AIRCRAFT
5. WAIL
6. PRY
7. GET RID OF
8. EVEREST
9. PAPER
12. FAMOUS CLOCK TOWER
13. COBBLERS TOOL
16. TELLER OF UNTRUTHS
19. ONE OF A SUPERIOR ATTITUDE
21. PLAN
22. SHEEP DOG
25. WITHOUT FEELING
27. GAME FISH
29. CLOSED
33. COOKED PIG SKIN
34. LIQUID METAL
35. RED VEGETABLE
38. THE NEVER-NEVER
39. BEER INGREDIENT
41. PRETEND
42. OUTDOOR MEAL
45. SKIN PROTECTING EYE
46. WAY THROUGH MOUNTAINS
47. BIRD SOUND
48. YOUNG HENS
50. EGYPTIAN RIVER
52. MOVE SHEEP
54. PATCHY COLOURED HORSE
58. TINT OR COLOUR SHADE
60. SPEAKING TYPE MUSIC
61. COMMIT A WRONG DOING
62. I

# The Wool Press

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## SELLING YOUR PRODUCT OR SERVICE (aka: MARKETING)

*a quick guide by Mandy McLeod*

## A DIVERSIFICATION PORTFOLIO

*By Robert Hall*

## TOPICAL WELFARE ADVICE

*By Cameron Bell*

## MONITORING WEATHER ACROSS THE ISLANDS

*By Marie Summers & Aidan Kerr*

## WILLOWS - WINTER MANAGEMENT

*Advice adapted from Malcolm Dawson by Aidan Kerr*

## GOAL SETTING - TIME SPENT PLANNING REWARDED BY PROFITS

*By Charlene Rowland*

## EDITORIAL

Enclosed in this edition of the ***Wool Press*** is a leaflet designed by David Parsons on Lotus Establishment & Management. David produced this leaflet as a parting gesture and hopes many farmers will find the information very helpful for Pasture Improvement.

The Bi-Annual Report for the period 1997-99 has finally been put together and is at the printers ready for printing. I was hoping I may be able to send a copy with this ***Wool Press*** but I believe the Printers are extremely busy, as soon it is ready it will be sent to you.

Livestock forms are arriving by the dozen. Farmers who have not returned them please do so you are liable to hold up the Statistics booklet.

As usual it was a pleasure to see lots of farmers in this year again. Our Open Day seemed to have been a success and I just hope that you found it to be of interest. Thank you to all those farmers who participated in sending produce for the displays. People are asking me if they could display more of their goods at the next Open Day. I would very much like to have another one earlier next year and if you would like to display any goods, please let me know.

Hopefully in the next issue of the ***Wool Press*** I will be able to pursued Bob to write a report on what he has been up to in the UK. He's been to a few Agricultural shows promoting the Falkland Islands produce, organics etc. and I'm sure he will have a tale of two to tell. Timmy Bonner and Cameron Bell will also be back from Alaska and they too should have loads of stories to tell of their experiences with reindeer.

### *THREE LITTLE WORDS*

*A woman was sitting at a bar enjoying an after-work cocktail with her girlfriends when an exceptionally tall, handsome, extremely sexy young man entered.*
*He was so striking that the woman could not take her eyes away from him.*
*The young man noticed her overly attentive stare and walked directly toward them.*
*Before she could offer her apologies for being so rude for staring, the young man said to her, "I'll do anything, absolutely anything, that you want me to do, no matter how kinky, for £100, on one condition".*
*Flabbergasted, the woman asked what the condition was.*
*The young man replied, "You have to tell me what you want me to do in just three words".*
*The woman considered his proposition for a moment, withdrew from her purse and slowly counted out five £20 bills, which she gladly pressed into the young man's hand.*
*She looked deeply into his eyes and slowly, meaningfully said: "**Clean my house**".*

### THIS MONTHS CONTRIBUTORS

| | | | |
|---|---|---|---|
| Sean Miller | Sheep Nutritionist | Charlene Rowland | Snr. Agricultural Assistant & Editor |
| Malcolm Dawson | Tree Specialist | Mandy McLeod | Farm Management & Training Officer |
| Aidan Kerr | Snr. Scientist | Cameron Bell | Veterinary Officer |
| Jeremy Challacombe | Beef Specialist & Advisor | Marie Summers | Agricultural Assistant |



## SELLING YOUR PRODUCT OR SERVICE (aka: MARKETING)

***a quick guide by Mandy McLeod***

Marketing by the individual is a new concept to farmers in the Falklands, mainly due to the fact that we have produced one main product... WOOL. So long as we got the wool off the sheep's backs and got it shipped away from the farm and the Islands, marketing, to a large extent was put in the hands of the broker or agent in the country of destination, and was (and still is) dictated by world prices and production. However, things are changing and the art of marketing is coming closer to home.

With the decline in wool price and the availability of grants and loans for diversification (Incentive Scheme), farmers are being encouraged to look at other forms of income, whether it be another product or offering a service. We all know that working out how much we can make by producing 'x' amount of something and selling it at '£x's is the easy part. In many cases, the actual production or provision of a service is easy too.... but it's not much good if you can't sell it! I do not profess to be a marketing expert, but here are a few checks that you can make, before and during production of a product, or provision of a service.

**Before:**

- Market research: You can usually get a general feel as to whether there is a demand for your intentions or not, but you need to find out:
- How much demand is there? No point in working out the profit for producing 5,000 items if the market can only absorb 1,000.
- Do you have any competitors? (This could be local producers or imports).
- Can you provide it to consumers at an affordable and competitive price?
- If market research shows that your product or service is sellable, advertise what you are going to put on the market and let everyone know where they can buy your product or service from.

**During:**

- Keep a close eye on sales. If they start to drop off ask yourself WHY?
- Is it seasonal? Is the competition taking the market share? Is there an over supply to consumers? Any of these may cause you to drop your price, so can you keep it above the cost of production?
- Is the selling outlet doing its job (is your product displayed well or hidden behind something else, or in a dark corner of the premises, etc.)
- Market research: Ask the consumers what they think of the product or service and how you can you improve it for them.
- Keep advertising.

There are 2 main headings that I am going to expand on as they are crucial to marketing and are the direct link between the product or service and the consumer.

**Market research**

**The consumer**: It is vital to know the demand for a product or service. A questionnaire distributed to prospective consumers by flyer, direct post, telephone survey or street survey can be done. It is worth noting though, that what someone says they want to your face isn't always the case. A tip is to give the person being questioned the choice of naming themselves or not (postal). If a face to face or phone survey method is being used, it is sometimes useful to have an independent person doing the asking, as people will be more open with their comments to someone who they know is not directly linked to the provision of the product or service. Bad or negative comments are as important as the good ones and cannot be dismissed. In fact, if you've been going through a bad run of sales, it's taking notice of the bad comments that will probably put you on line again.

It is important to keep up the market research as this shows the consumer that now you have got their custom, you are keen to keep it by asking their advice. People's tastes change, so take notice of them.

**The selling point**: It is not always easy to avoid 'the middle-man' and selling direct from the farm is time consuming and not necessarily practical, although there are some instances where this can be done very successfully. However, if you are selling through an outlet, be assertive with the proprietor. Suggest where you would like your product to be situated (you'll get no-where if you don't ask). Make sure that you are notified when the product runs out (you don't want to lose your market share to another producer). Likewise, if there is a shelf life to your product, make sure that it is adhered to. Choose your 'sellers' wisely. There's no point in having a retailer selling hand carved or fluffy penguins if they don't open shop on a Sunday when a tourist ship is in).

**Advertising**

Most businessmen will tell you that, if you've got your market research right, advertising is money well spent, although it does not have to cost a fortune. Although good sales through word of mouth is usually a sign of a good product, there are many ways to speed up awareness of your product or service, from posters, flyers, radio announcements and 'freebie' promotions. Advertising needs to be perpetual to keep your market share, or competitors will catch the consumer's attention (or they may just forget that you exist!). Advertising methods should be varied so that consumers don't become bored or take the product or service for granted. Tell them why yours is the best. If you have a trademark or slogan, push it. Be ever vigilant and don't assume anything.

If you are just embarking on an idea I hope this short burst has given you some insight into the importance of marketing. If you are already doing something..... let the world (or even the Falklands) know that you exist and what you have to offer.

So, on that note I will leave you with a question and food for thought..... If product 'A' was sitting on a shelf next to an equal product 'B' (same price, size, quality, etc), what would make you pick product 'A' over product 'B'?





## A DIVERSIFICATION PORTFOLIO

*By Robert H B Hall*

Prudent investments such as broad-based pension funds generally seek a spread of investment risks and opportunities. The reasons are that if one thing does badly the investment as a whole is only partly affected whilst if something does really well the fund at least has a share of the action.

If the same logic is applied to Falkland wool production, there is clearly a significant gap in the wool production portfolio. Falkland wool is being produced in bulk from 23 to 32 microns but with little below 21 microns and nothing much in the superfine region of 19.9 microns and finer.

Taking a broader look at the Falkland Islands planned agricultural diversification portfolio one could easily class super fine wool as a separate commodity to the broader wool of 23 to 32 microns and again there is the same investment gap.

Given that the infrastructure on farms, the production, shearing, transport and marketing system are in place for wool, perhaps super fine wool might be one of the easier diversification ideas to develop profitably. This is clearly a gap in the investment portfolio that deserves development.

## WANTED

20 OR 25 hp OUTBOARD in good running order
&
would also like to buy Muscovy ducks

**If you can help, please contact**
**Susan Pole-Evans, Saunders Island**
**☎ 41298**

## INCREASING THE VALUE OF MARINO WOOL

**Source: Rural News 29/5/00**

Researchers from the New South Wales Department of Agriculture have shown it's possible to increase the value of Merino wool by up to 40% after just 4 years of breeding selection.

The study at the Trangie Agricultural Research Centre has so far recorded a 1.5 micron decrease in fibre diameter in the best performing line of 200 medium wool ewes, while wool cut has been maintained.

## *NOTICE FROM THE DEPARTMENT OF AGRICULTURE*

We have received a number of cheques in the post recently which are made out to the Agriculture Department, Veterinary Office and various combinations of this. Can everyone please ensure that cheques made to any section of the Agricultural Department are made out to:

**FALKLAND ISLANDS GOVERNMENT (OR F.I.G.)**

Thank you

## TOPICAL WELFARE ADVICE

*By Cameron Bell*

In May 1998, Senior Veterinary Officer at the time, Andrew Coe, wrote a Woolpress article addressing several animal welfare issues current at the time. I would like to repeat Andrew's comments as they are still relevant.

### Dogs

Winter in the Falklands can be a cold, wet, windy and miserable time. Huskies have been selectively bred and are well adapted to sleep out in howling snow storms and to eat frozen seal meat and snow. Collies and Huntaways are not!

When putting your feet up in the evening in a warm kitchen please spare a thought for your dog's comfort and well being by ensuring that the following minimum requirements are met:

1. They must have access at all times to a dry, draft and rainproof kennel/sleeping area, **irrespective of whether the dog chooses to use it or not.** This is most practically going to be wooden floored which will help to insulate them from the cold ground.

2. Check twice daily that water bowls aren't frozen over.

3. Ensure that they are given adequate food every day to enable them to generate enough heat to keep worm.

4. Give them supervised exercise every day (weather permitting) to keep them fit in both body and mind.

5. Go and have a critical look at your dog's sleeping accommodation TODAY and ask yourself if it could be made more comfortable without too much expenditure of time and money.

### Beef

The traditional cattle slaughtering season is on us and I want to make a plea that all persons considering slaughtering cattle out in camp do so in the most humane manner possible. What we want to avoid is the operation turning into a 'big game' shoot with seriously injured animals having to be chased around to complete the job. This is not acceptable from an animal welfare perspective, but also, the taste and quality of meat from 'stressed' animals will be altered. The main recommendations are as to the size of gun / ammunition that should be used and the position in which animals should be shot.

Whilst a .22 rifle may be sufficient for shooting confined cattle in the head at close range, they are not sufficiently powerful to be reliable for shooting cattle under field conditions. In such circumstances a 7.62, 3.03 or at the minimum a .223 calibre rifle, should be used. If the animal can be approached closely enough and the shooter is confident enough in their ability then a head shot, aiming at the point where lines drawn from each ear to the opposite eye across in front of the skull, is the shot of choice. If this is not possible then the animal should be shot from the side somewhere in the middle of the shoulder blade or just slightly behind. This is a typical deer stalking shot and was used extensively and to good effect when slaughtering the bulls on Keppel. The animal will collapse within a few yards of where it was shot and if it is still alive when the shooter reaches it, it can be slaughtered with a shot to the head.

With the construction of more and more cattle handling facilities around the Falklands there will be less need to shoot cattle in a 'field' situation however.

## Culling Sheep

For many, perhaps most farms, the advice that follows may be too late for this season but there may still be some farms that are culling sheep in the next few months.

It is tied in with the advice given above regarding the slaughter of cattle and it is again designed to ensure that the slaughter of cull sheep is carried out in a humane manner. If sheep are to be shot with a free bullet then they should be confined in a small pen or race so that close up head shots can be accomplished. Animals can then be carefully checked to ensure that they are not still breathing and any that are can be slaughtered by throat cutting. It is not satisfactory to shoot a large number of free moving sheep held up in a corner of a field. The risk of mis-hits is too great and animals could be wounded by ricochets.

Alternatively, humane killers are still available from the Department of Agriculture. These are simple and straight forward to use, and relatively safer than a 'free' bullet. Animals however need to be restrained in quite a small pen.

### Concluding remarks

The purpose of this article is to encourage people to give a little thought to the issues raised, since animal welfare can often be greatly improved with not a lot of extra expense in either time or money. Further, improved animal welfare normally results in increased production and quality of animal products.

# PROGRESS IN THE LAMB TRIAL

*By Sean Miller*

A short update on what has been happening in the lamb trial so far …

We have the following groups of lambs chewing their way through the forage crops we planted last December.

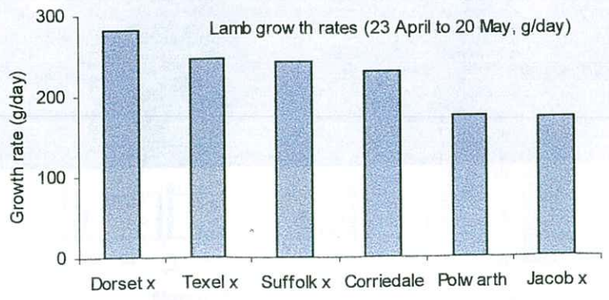
| Property | Breed (roughly!) | Sex | Number |
|---|---|---|---|
| Fitzroy | Texel x | cryptorchids | 8 |
| | Poll Dorset x | cryptorchids | 8 |
| Sussex | Polwarth | wethers | 10 |
| Little Chartres | Suffolk | cryptorchids | 10 |
| Estancia | Suffolk x | wethers | 9 |
| | Texel x | wethers | 9 |
| Horseshoe Bay | Jacob | wethers | 10 |
| Smylies | Corriedale/cormo | wethers | 10 |
| Salvador | Corriedale/cormo | mixed | 9 |
| Hope Cottage | Polwarth | wethers | 10 |
| Golding/The Peaks | Polwarth | wethers | 9 |
| West Lagoons | Polwarth | wethers | 10 |
| Bleaker | Polwarth | wethers | 10 |
| Head of the Bay | Corriedale | wethers | 10 |
| | | Total | 132 |

Over the coming weeks we'll be slaughtering the lambs as they reach 'finished' condition. We are growing them to the highest weight we can until they reach a maximum fat depth (over the 12th rib) of 10 mm. This puts the lambs within the range that the much-talked about military market currently specifies as acceptable carcasses. The other key criteria for the military market are carcass weights between 13 kg and 20 kg, and leg weights (dressed) of 1.8 to 2.4 kg. In reality, these types of carcasses are not just suitable for a prospective military market, but they are also ideal for the local and many other potential export markets.

Our main purpose in this trial is to see what type of carcasses the current Falklands flock can realistically produce if the animals are fed well and chosen for slaughter at an appropriate stage of growth.

Growth rates of all lambs have been impressive and reflect the very high quality feed they're eating.

At the current rates of growth, and assuming the lambs are fed on these crops from the time they reach 25 kg until they reach 40 kg (80 to 100 days), on average the cost of feeding is less than £1 per head.




The next stage is slaughter. We'll be measuring carcass fatness, muscle areas, dressed weights, and meat tenderness (via muscle pH). We'll also do some taste testing to see whether people distinguish between breeds, tenderness, and flavour.

So stay tuned for more over the next couple of months.

# MONITORING WEATHER ACROSS THE ISLANDS

*By Marie Summers and Aidan Kerr*

Recently Aidan and I have been installing a network of automatic, weather stations all over the Islands (*Fig 1*) to record the weather patterns of the islands.

The main reason for monitoring the weather is to examine how rainfall, temperature and wind varies across the islands. Apart from the M.P.A station the Met Office stations do not record rainfall and historical records of the other factors have been difficult to obtain. Part records are incomplete and hopefully this new system will make term trends and indication of climate changes can be confirmed.

This will allow us to confirm local opinion about weather patterns, for example that most of West Falkland and Lafonia receive significantly less rainfall then Stanley. We will be able to determine how big the differences are. For agriculture, knowledge of temperature and rainfall variability are particularly important in understanding and predicting the growth of improved pastures, trees and other crops that may be grown in different parts of the islands.

The station also calculates wind-chill from the wind speed and air temperature data. This would help understand if wind chill varies from place to place. Our main recordings are rainfall, temperature and wind, but the stations (made by Davis Instruments, U.S.A) also monitor pressure, humidity, dew point and much more. A record of each variable is made every 30 minutes and stored in the data logger. Current weather is readily displayed on the monitor at the touch of a button. Unfortunately the stations do not help us forecast the weather.

**Fig 1: Mount Pleasant Airport (M.P.A) and Department of Agriculture (D.O.A) weather station sites.**

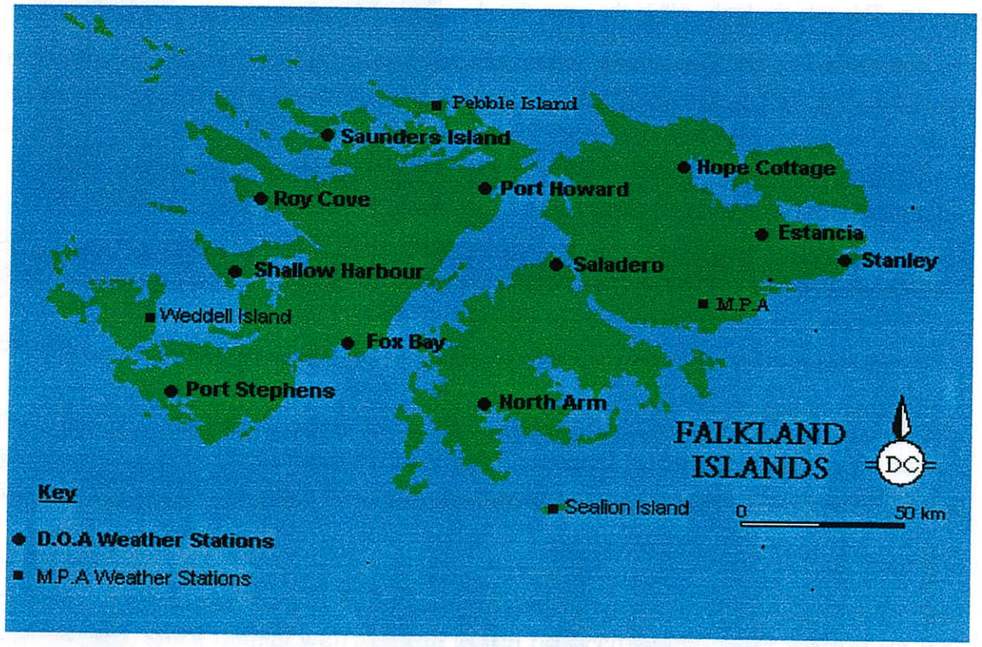
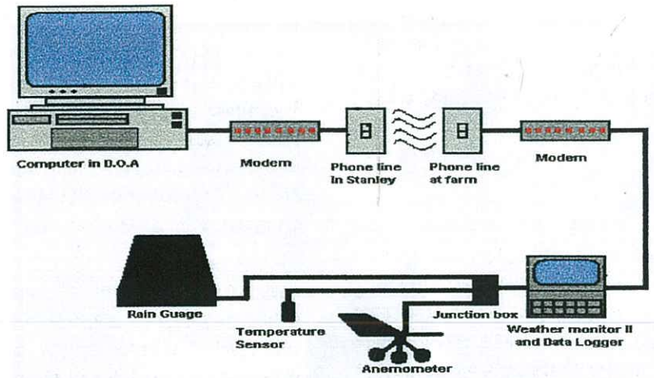



**Fig 2: Diagram of the connection from the central computer to weather stations**



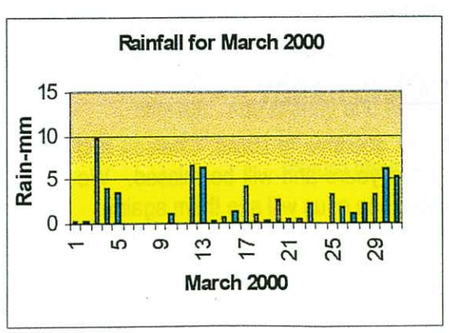

Each weather station is connected to a modem allowing us to download the data from the data logger via the phone systems to our central computer in the Department. (*Fig 2.*) The exception is the Saunders Island station, which can be downloaded to their computer and e-mailed to us.

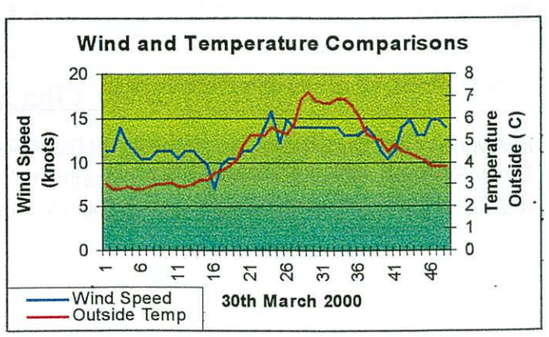
The data is stored on the central computer and can be displayed as tables (*Fig 3*) or graphs (*Fig 4*). Each farm will receive a quarterly summary of their weather. Since 1986 we have collected data from the Met Office at M.P.A for comparison. Data has also been collected by hand from some farms using 'Digitar' digital stations, However these cannot record detailed conditions. For now the monitoring will be limited to these sites although we may deploy automatic sensors at some temporary experimental sites as the need arises. Finally thanks to all of those people who have helped establish the network.

**Fig 3: Table Summary from 1st-15th March 2000**

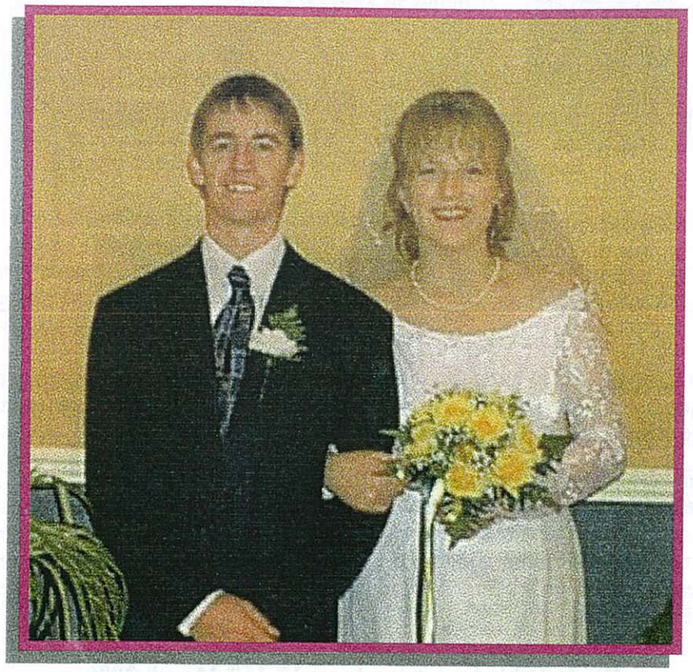
| Day | Mean Temp | Highest Temp | Lowest Temp | Rain | Average Wind Speed | Highest Wind Speed | Wind Direction |
|---|---|---|---|---|---|---|---|
| 1 | 13.7 | 22.3 | 8.3 | 0.2 | 8.8 | 21.7 | WNW |
| 2 | 12.7 | 19.1 | 7.8 | 0.2 | 8.7 | 23.5 | N |
| 3 | 13.1 | 16.4 | 11.2 | 9.6 | 13.1 | 28.7 | NW |
| 4 | 8.7 | 11.5 | 5.1 | 4.0 | 17.1 | 35.7 | SSE |
| 5 | 9.3 | 12.8 | 5.4 | 3.6 | 16 | 41.7 | S |
| 6 | 11.0 | 16.3 | 5.6 | 0.0 | 14.8 | 35.7 | WNW |
| 7 | 13.5 | 16.3 | 11.1 | 0.0 | 18.4 | 40.9 | WNW |
| 8 | 16.1 | 22.7 | 10.9 | 0.0 | 11.9 | 33.9 | N |
| 9 | 14.9 | 18.0 | 12.3 | 0.0 | 18.2 | 45.2 | WNW |
| 10 | 13.5 | 16.2 | 12.4 | 1.2 | 9.8 | 20.9 | NNW |
| 11 | 13.2 | 15.3 | 12.4 | 0.0 | 14.8 | 28.7 | NNW |
| 12 | 13.4 | 17.4 | 11.2 | 6.6 | 10.5 | 25.2 | WNW |
| 13 | 13.5 | 15.7 | 12.8 | 6.4 | 17.9 | 42.6 | N |
| 14 | 13.1 | 15.8 | 11.1 | 0.2 | 18 | 36.5 | NNW |
| 15 | 11.5 | 14.9 | 7.6 | 0.6 | 13 | 39.1 | N |

**Fig 4: Examples of graphs.**



## *Dan and Marie*



The wedding took place at Christ Church Cathedral at 2.30pm on 10th June and afficiated by Alistair McHaffie. Marie being a traditional girl was 15 minutes late leaving Dan to sweat a bit at the altar. Dan and his best man Ian Jordon rolled up at the Christ Church Cathedral in style, being pulled along in a horse box made by Mike Evans.

After the wedding, the bridal party went onto the Brassarie where they had their photographs taken and a wedding supper . Afterwards a very enjoyable reception and dance was held at the F.I.D.F. hall.

Derek Clelland our Laboratory Technician also got married this month to Sheena in Scotland. Hopefully in the next Wool Press I will have some photographs of their wedding.

Everyone in the Department of Agriculture would like to wish Marie, Dan, Derek and Sheena congratulations and all the very best for the future.

## GOODBYE TO DAVID, CHELSEA AND DARBY

Everyone at the Department of Agriculture would like to say goodbye to David, Chelsea and Darby Parsons. David had been in the department for three years and will be missed. We wish them the very best in Australia and no doubt somewhere one of us will see them again!



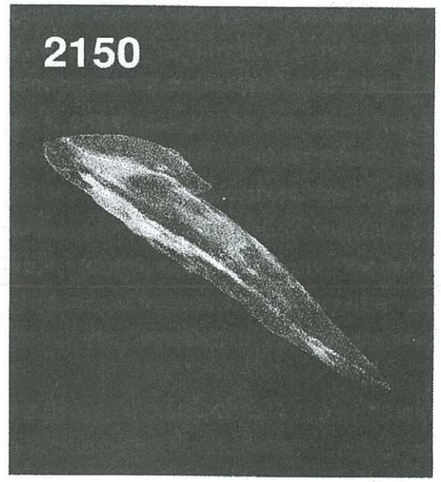
ITEM NO.
2150

## TENDERLOIN

Tenderloin is derived from a hindquarter and is removed in one piece from the ventral surface of the lumbar vertebrae and the lateral surface of the ilium. The side strap muscle (M. psoas minor) remains attached.

**Points requiring specification:**

- Fat cover removed.
- Silverskin removed or retained.




## MONTHLY BEEF RECIPE

### Steak Dianne

Another recipe from the USA Cattle Today Cookbook for those of you who like a mouthwatering steak cooked with a rich sauce. If you are a garlic lover, use garlic instead of onion.

**4 slices of beef tenderloin steak**
**2 teaspoons of flour**
**½ teaspoon of salt**
**1/8 teaspoon of black pepper**
**4 tablespoons of butter**
**1 ½ tablespoons of dijon mustard**
**2 tablespoons of worcestershire sauce**
**2 cups of thinly sliced mushrooms (or one small can)**
**2 tablespoons of minced onion (or garlic if you prefer)**
**¼ cup of brandy**
**½ cup of beef stock (or 1 beef cube)**

Pound the steaks until they are about ¼ inch thick)
Dredge in flour mixed with salt and pepper. In a heavy frypan, melt 1 tablespoon of butter.
Add the steaks; brown about 1 minute on each side; remove steaks and place on a plate. Spread both sides with mustard and sprinkle with 1 teaspoon of worcestershire sauce; set aside.
In the same frypan, melt the remaining butter. Add mushrooms and onions (or garlic); saute for 2 minutes. Add brandy and flame. Stir in beef stock and remaining worcestershire sauce.
Cook and stir until hot.
Return the steaks to the frypan and reheat for 2 minutes.

## WILLOWS – WINTER MANAGEMENT

*Advice adapted from Malcolm Dawson by Aidan Kerr.*

Some people who planted the willow cuttings brought by Malcolm last Spring have been asking about the management of the plants over winter. Malcolm offers the following advice;

"In normal circumstances always cut back. However where conditions both soil and climate are so adverse it may well be that the best advice is to leave well enough alone. I have discussed with colleagues in Long Ashton (National Willow Collection who supplied most of the cuttings) and their experience on very adverse sites (colliery spoil) was where growth was very poor they responded better to no cutting."

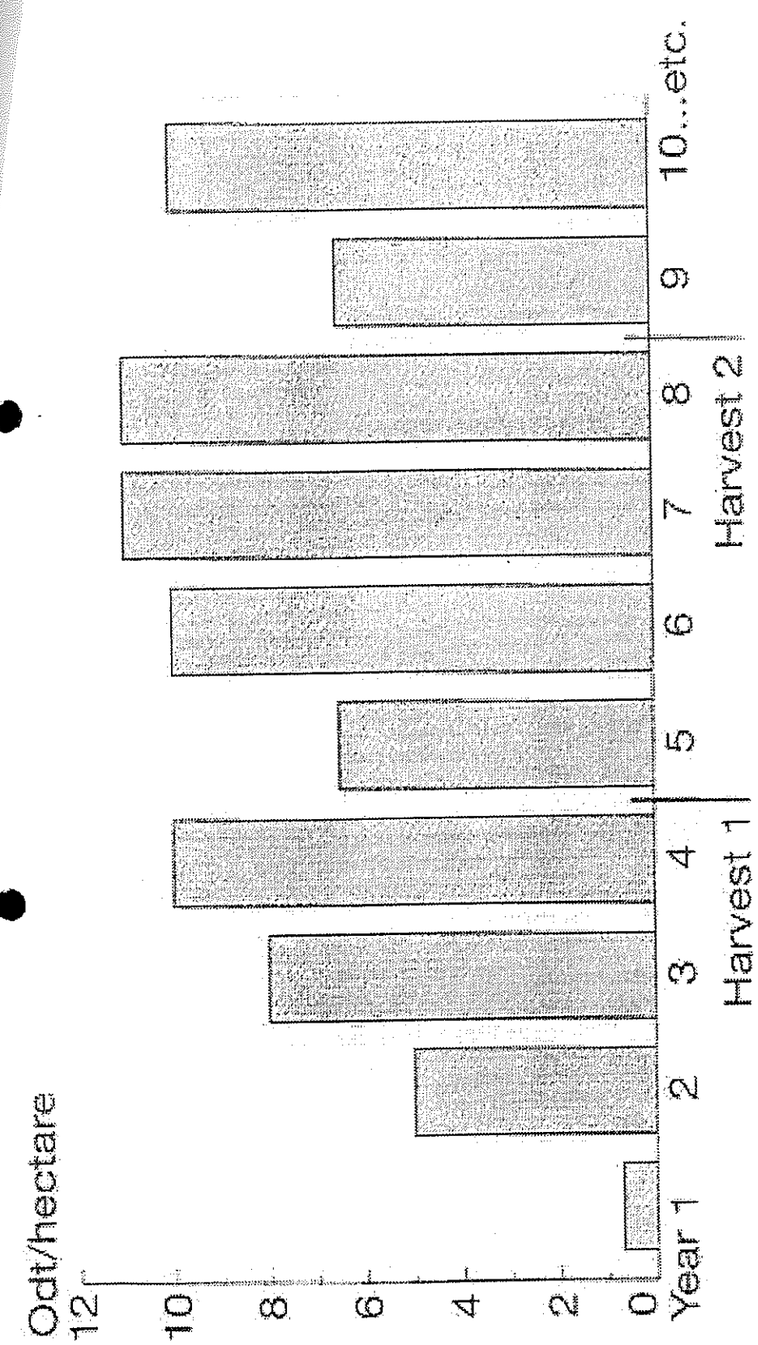
"Where post establishment growth has been better on more favourable sites it would always be my advice to cut back to ground level. The willow will respond well to this sort of severe treatment. Indeed to keep the stools healthy and growing vigorously cutting back should be a regular management operation. This advice also applies to the ornamental varieties as it is often only the juvenile growth that displays the ornamental features."

Malcolm continues "The best cutting back time is when the plants are fully dormant e.g. in June/July - early August and this is the only reservation I have about the advice not to cut back. I have some concern that desiccation may be a problem on the surviving shoots." Consequently it might help their survival if uncut shoots were kept moist particularly through the usually dry Spring.

He suggests that storage of the cut stems can be simply in a cool place out of direct sunlight and ensuring they do not dry out. This is alright for planting in August/early September - the ideal time - if planting is delayed after this time refrigerated storage is needed. He also recommends soaking the cuttings in water for 24 hours prior to planting.

For the surviving cuttings from last year Malcolm recommends that an application of Phosphate would be both beneficial and necessary. A readily available form e.g. Triple Superphosphate should be applied in early spring (late September/early October) to coincide with root activity. For small plots of a few cuttings spread a few handfuls of a garden phosphate fertiliser around each growing shoot.

If anyone has any further queries please contact the Department of Agriculture.

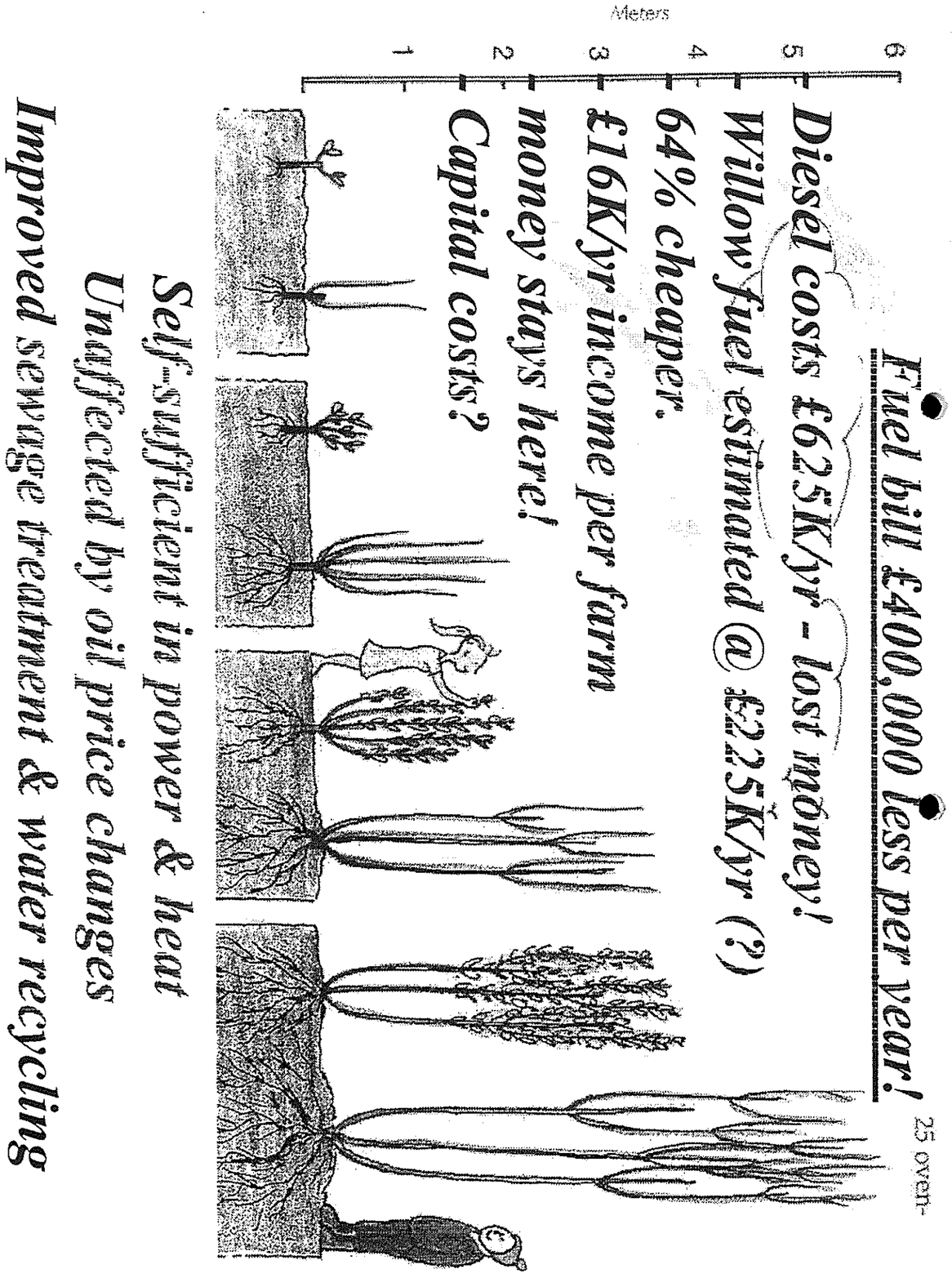



***Could willow power Stanley more effectively?***

***- willows produce 10 t dry chip /ha = 0.162 GJ***

***- station needs 112 GJ/yr***

***- from 693 ha Willow, c. 50 ha each on 14 farms?***




# GOAL SETTING

## TIME SPENT PLANNING REWARDED BY PROFITS

*by Charlene Rowland*

*I think this is a good article that I have adapted to suit the Islands and it is something that any business should do. Whether it is a sheep farmer or a fruit and vegetable shop goals should be set and met. Think about it and have a go, as it could cost you dearly if you don't!*

Applying simple business principles can often mean the difference between financial hardship and success. One of the most important principles to consider in farming is business planning.

In fact, planning is more important in industries of uncertainty (such as farming enterprises) – often the contingency plan (rather than the desired path) is followed but at least a second option is available.

The first step to effective business planning is forming a vision. It is essential the key partners of any business have a shared vision of what they hope to achieve. In other words, a vision is the long-term goal or ultimate outcome that is worked towards.

A vision does not need to be long-winded, but it must be more substantial than for the hope of just 'staying afloat'.

Establishing intermediate goals help business owners achieve their long-term vision. By setting goals, the vision is converted into a series of actions that allow meaningful tasks to be achieved on a daily basis.

One way of allocating goals for a farm business is to write down lots of tasks or actions (paddock by paddock) that need to be completed. This list could include such tasks as getting ready for pasture improvement and in particular which paddock by a certain date, or repairing a fence by a set date.

Keep goals simple, measurable and realistic and set timeframes in which to complete them. Business partners may need to make sacrifices to reach the desired goal. These sacrifices could include time, money, relationships, social contact or other lifestyle events which might have to be put on hold.

***Plan for growth***

A business plan for growth is based on identifying the strengths and weaknesses of the operation (see table). These are often revealed by talking to employees, family, partners and even friends or neighbours.

A SWOT analysis (strengths, weaknesses, opportunities and threats) opens the way for new opportunities to be explored while keeping a watchful eye on any threats that have been identified.

For example, in a family meeting the partners might decide one business strength is the reliability of rainfall and high quality soils. A weakness may be the distance to markets (transport costs). A list can be prepared of similar issues. Some may appear on both sides of the table, as a strength can also be a weakness.

Take time to discuss the strengths and weaknesses of the individual partners. This will make it easier to allocate jobs and identify training needs. Alternatively, all farm tasks can be listed and the key person to perform (or oversee) each role can be noted against each job to help delegate responsibility and look at the skills within the business.

Threats are usually unpredictable events – for example, weather, natural disasters and political decisions. Perhaps a threat from an eroded area where you need to keep the animals out by fencing, could be quite a few hectares.

***Strategic planning***

It is important to distinguish between strategic planning and operational planning. Strategic analysis identifies the key strategic issues driving the plan. The

strategy section of a business plan can show just how that business will be successful.

For example, a typical sheep farm faced with low profitability can be transformed by using the strategic planning approach. There is a large amount of research and information available regarding market needs for agricultural commodities or products. Wool fibre diameter is an example of measurement and can be associated with market requirements.

If a decision is made to meet market demands for certain products, technology can be used to assist farmers reach this point. Biotechnology, or the use of advanced breeding techniques, will allow the fast-tracking of such a decision.

***Setting objectives***

Objectives generally fall into two areas – financial and strategic (for example, growth, size and products). Targets or goals are usually set after objectives are achieved.

Strategic planning is generally based on a longer timeframe than operational planning. Strategic issues should be the primary focus of a professional business.

***Time for action***

One of the most important components of a professional business plan is a plan of action that indicates who is going to do what by when.

The implementation of these actions is something that often goes by the wayside. Try to work out a way of following the plan as closely as possible.

Developing a plan requires time and discussion. Unfortunately, some farmers only consider outside physical activities to be actual 'work'. But profits can also be made by some careful planning in the office.

***EXAMPLE OF A FARM SWOT ANALYSIS***

| ***Strengths*** | ***Weaknesses*** |
|---|---|
| Good weather | Isolation |
| Good soils | Low staffing |
| Improved Pasture | Old machinery |
| ***Opportunities*** | ***Threats*** |
| Diversify | Market oversupply |
| Improve breeding | |
| New Crops | |
| | |
| **People SWOT** | |
| ***Strengths*** | ***Weaknesses*** |
| ***Mother*** | |
| Communication | Working too hard |
| Bookwork | Not saying 'no' |
| Family cohesion | |
| ***Father*** | |
| Farming knowledge | Staff management |
| Machinery | Animal work |
| Negotiating | |
| ***Son*** | |
| Innovation | Budgeting |
| Lateral thinking | Time management & organisation |
| Pasture Improvement | |
| Machinery | |
| ***Daughter*** | |
| Animal husbandry | Machinery |
| Marketing | Cropping |
| Presenting | |
| Staff management | |

***PLANNING CHECKLIST***

*✔Meet to discuss ideas and vision for the business.*
*✔Carry out a SWOT analysis*
*✔Identify strategic and operational issues*
*✔Determine objectives with targets*
*✔Draw up a monthly report sheet for key information and monitoring*
*✔Establish an action plan of who is going to do what by when*
*✔Review the business plan at least every six months*

*Source: Rural Business, Farming Ahead No 100 April 00*

## HISTORY REPEATS ITSELF

***Source: Sheep Farmer May/June 2000***

*Farming's crisis is serious but things were worse over a hundred years ago.*

The twenty-first century has arrived with the most serious crisis in the farming industry since the 1930's but if we look back to the nineteenth century, things were much worse, due to a combination of events.

In the latter half of the nineteenth century there was an influx of cheap food from the USA, Russia, Argentina, Australia and New Zealand. An era of aggressive free trade in the 1870's, and cheap grain from the USA pushed prices down to levels unknown since 1700.

In the 1880's bread fell to half its price, Denmark changed to dairying and pigs and exported quality, cheap bacon. In the UK arable farms were converted to grass leys for milk production. Huge milk surpluses ensued bringing falling prices. Also very cheap cheese was being imported from the USA at 2d per pound; UK producers could not make it for less than 3d per pound. (*1d or old penny, equals approximately 0.4p*).

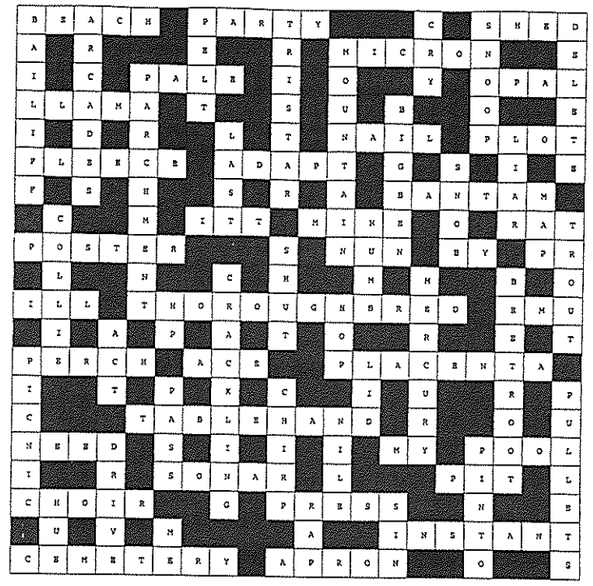
Also there were appalling extremes of weather during this period of depression.

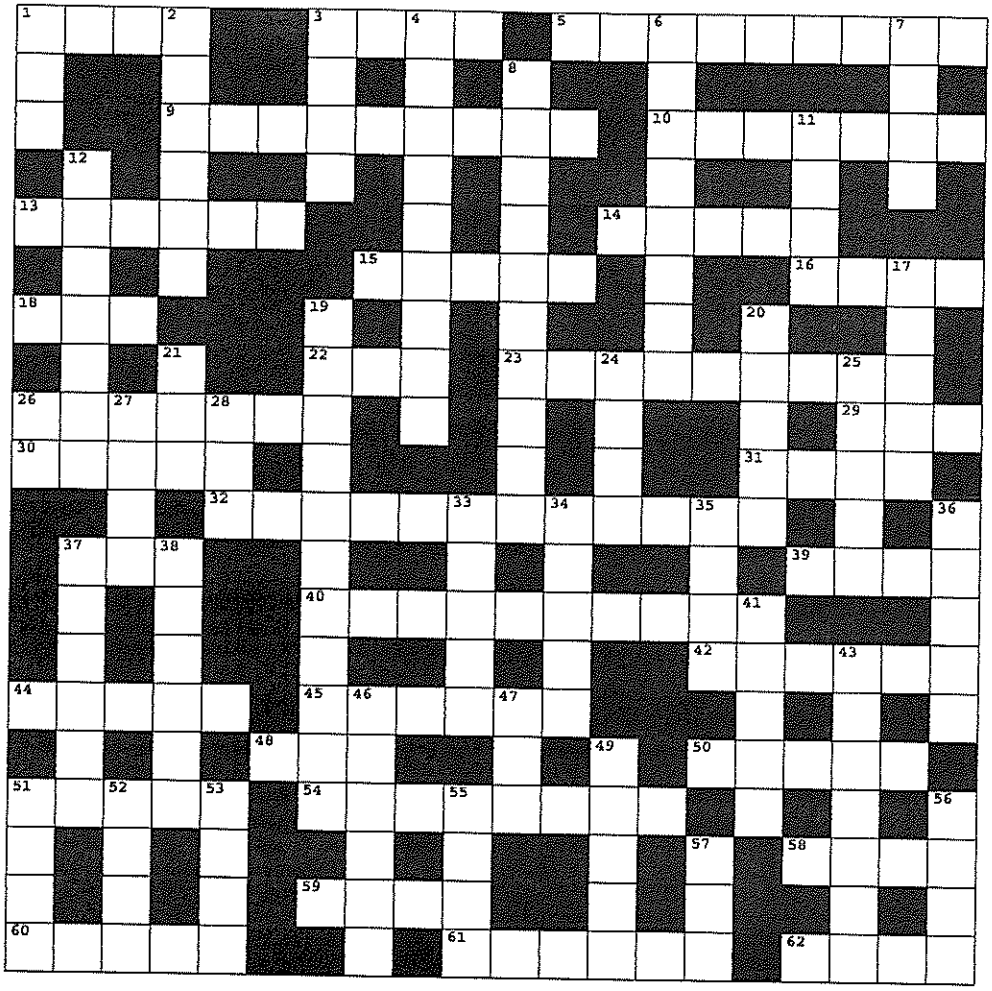
**1879;** it rained non-stop for the whole year turning the land to mud; this continued until 1882. Epidemics of pneumonia and liver fluke in sheep – crops rendered unharvestable.
**1879-1884;** appalling wet summers – damp, dark and cold – no barley crops, wheat blighted and black.
**1879;** serious floods – cattle drowned, people travelling by boat.
**1880;** five million sheep died.
**1881;** a blizzard lasting 48 hours.
**1885-1887;** droughts brought shortages of roots for livestock.
**1891;** the great blizzard of 8th-13th March brought 20 foot drifts to the West Country.
**1891-1893;** again severe drought summers – no grass for haymaking.
**1894-1895;** bitter and persistent frost – drifts of snow from six to fourteen feet covered the ground for weeks.

Thousands of farmers were wiped out by this combination of aggressive free trade and 30 years of extremes of weather, and subsequently abandoned farming. William Wordsworth, the poet, noted that the same thing had occurred at the turn of the previous century.

Many sold up and emigrated to the colonies. It is on record that between 1870 and 1950 700,000 farmers and farm workers emigrated.

# ANSWERS TO LAST MONTH'S CROSSWORD





ACROSS

1. PEOPLE IN A PLAY
3. TURN AROUND FAST
5. SMELL
9. SURGICAL PROCEDURE
10. SELF PROPELLED SUBMARINE WEAPON
13. MUSHROOMS FOR INSTANCE
14. SHUT DOWN
15. FOURTEEN POUNDS
16. GREAT DOG
18. SMALL ANIMAL ENCLOSURE
22. FEMALE BIRD GENERALLY SPEAKING
23. FARM ANIMALS
26. GRIM AND SINISTER
29. THE COLOUR SEEN WHEN ANGRY
30. EATING CROCKERY
31. TRACK
32. COUNCILLORS OFFICES IN STANLEY
37. JEWEL
39. SEA HEN
40. USED TO TREAT A BACTERIAL INFECTION
42. WOODEN HORSE
44. A CLEVER STING
45. BIRD RESTING AREAS
48. PORT SAN CARLOS B & B
50. ATHLETICS, FOOTBALL, ETC.
51. LARGE GATHERING
54. TYPICAL DUTCH BUILDING
58. CAMP HOUSE?
59. LARGE WILD CAT
60. FLOWER WITH A FACE
61. RECENTLY
62. RUSSIAN RULER

DOWN

1. POLICEMAN
2. ANIMAL FEED CONTAINER
3. PUT IN ORDER
4. GUT
6. AFRICAN DEER
7. SECRET ENCRYPTED MESSAGE
8. REPORTER
11. TWO COLOURS
12. BURIAL SERVICE
17. WEARING NOTHING
19. HANDCART
20. LOOK AT INTENSLY
21. HEAD WEAR
24. REJECT
25. NOT QUITE A BREAK
26. MEMBER OF PARLIAMENT
27. LOOK AFTER
28. PLEAD
33. HORSE STEERING EQUIPMENT
34. HUMAN FIBRES
35. PROJECTING STRIP OF LAND
36. COME BACK IN AFTER LIFE
37. MAIDEN OR YOUNG EWE
38. SPINAL COLUMN IN MEAT
41. UNDERGROUND VAULT
43. JUMPERS
46. HIGHLY OFFENSIVE AND HORRIBLE
47. MALE CAT
49. LIVER PARASITE
51. COLLECTIVE NAME FOR WOOL SHORN
52. SIGN
53. LOW CART
55. DISH OUT THE CARDS
56. HEAVENLY BODY
57. PIG HOUSE

# The Wool Press

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**All the regular features and more!**


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**2 SHOWS, A UNIVERSITY AND THE FORUM**
*By Bob Reid*

**DETERMINING THE AGE OF CATTLE BY THEIR TEETH**
*By Jeremy Challacombe*

**EXOTIC DISEASE UPDATE**
**&**
**SOUTH GEORGIA REINDEER**
**&**
**E.MAIL GROUP DISCUSSION**
*By Cameron Bell*

**WHICH FORAGE CROP?**
*By Sean Miller*

**Q.F.W. – FARMERS WEEK UPDATE**
*By Lucy Ellis*

**ORGANIC PRODUCTION – PRACTICE AND CERTIFICATION**
*By Ian Cox*

**MYSTERIOUS LIGHTS OF NATURAL PHENOMENA**
*By Jim Elliott*

# EDITORIAL

The department is slowly getting back up to strength after officers going off to further afield either on holiday or work related topics.

At the end of August, Jeremy Challacombe will be in Australia for September and part of October. He has stressed that if anyone would like any information on anything while he is away he would only be too pleased to help. Likewise if you would like to get a hold of Jeremy whilst he is away then please either call the Department of Agriculture or e.mail doa.fig@horizon.co.fk so we can get the information to him.

I am still waiting for 6 farms to submit their Livestock Statistic Form. I have spoken to these farmers and you are now holding up the booklet.

The Veterinary Department has included a questionnaire as a flyer in the Wool Press. It would be much appreciated if you could complete this survey form and send it back in the pre-paid envelope. If this form is not back to the Department by the end of August, expect a telephone call.

### JUST A LITTLE PARROT JOKE!

A magician was working on a cruise ship in the Atlantic.
The audience would be different each week, so the magician allowed himself to do the same tricks over and over again.
There was only one problem: The captain's parrot saw the shows each week and began to understand how the magician did every trick.
Once he understood he started shouting in the middle of the show:
"Look, it's not the same hat".
"Look, he is hiding the flowers under the table".
"Hey, why are all the cards the Ace of Spades?"
The magician was furious but couldn't do anything; it was, after all, the captain's parrot.
One day the ship had an accident and sank.
The magician found himself adrift on a piece of wood in the middle of the ocean with the parrot, of course.
They stared at each other with hate, and did not speak a word.
This went on for a day then another and another.
After a week the parrot said: "OK, I give up. So where **is** the boat?"

### THIS MONTHS CONTRIBUTORS

| | | | |
|---|---|---|---|
| Jeremy Challacombe | Beef Specialist | Lilian Wallace | Acting Snr. Clerk |
| Director of Agriculture | Bob Reid | Lucy Ellis | Agricultural Assistant |
| Jim Elliott | Ex Met. Officer | Cameron Bell | Veterinary Officer |
| Sean Miller | Sheep Nutritionist | Ian Cox | FIGO |



## 2 SHOWS, A UNIVERSITY AND THE FORUM

***Report : Bob Reid***

The Falkland Islands have been represented at the Royal Highland Show (Edinburgh) and the Royal Show (Stoneleigh) for the past three years. Initially envisaged as a "flag-flying" exercise, our presence has quickly evolved into something of a showcase of what the Falklands are achieving, and this year we introduced the British public to some of our handcrafts.

Manning the display for ten to twelve hours a day and meeting a very wide section of the British public can be both tiring and exhilarating. The questions most commonly asked "Why are you here?", "Do we still keep you afloat?" and "What are you selling?" meant that we had to keep out wits about us constantly, and of course it was always great to be greeted with, "How nice to see you here".

As always there was lots of interest in the Falklands as a place to visit even if it did mean that we had to dispel the myth that we are the furthest point on the globe from Britain. People were continually surprised to hear that Australia and New Zealand are much further away. There were lots of enquiries about flight costs and availability of quality accommodation. Promoting Falkland products and crafts proved more difficult, although it was interesting to watch the ladies as they passed by the stand to hear their comments on the jewellery in particular. They were certainly interested but we will need to be more aware of pricing, product display and supply if we are going to do it again.

The stands had lots of visitors who had either lived in the Islands or knew someone who had, and I was amazed at the number of ex-servicemen who wanted to say "hello". A highlight at the Royal Show was the visit by Princess Alexandra to the stand. She made a point of specifically asking to visit the Falkland Islands stand and remembered her recent trip in suprising detail, even asking if the trees at Fitzroy had made any appreciable growth.

Between attending the shows I spent a couple of day at the Pasture Improvement trials run by the University of Newcastle on the moorlands of Northumberland. Their environment is very similar to ours (acid, infertile soils) and they are desperately trying to move into "organic" production. Like us they are dependant on sheep although now that the BSE scare is on the wane, more are returning to breeding calves for fattening on better farms. Two things struck me; the re-awakening of a legume culture and the use of feed blocks to not only supply essential minerals but also to give better utilisation of poor quality grazing. A number of farmers were very interested in making their own blocks based on Sean Miller's formula.

Finally I presented a paper entitled "Sustainable Diversification in Agriculture" at the Falkland Islands Forum in London on July 12.

There was a lot of interest in our potential to supply meat (lamb, mutton and beef) to the UK organic market and I will be following this up over the next few months. There are certainly opportunities for us out there in the big market place but it will take considerable effort by all interested parties to be successful as the competition is horrendous.

All in all a very useful visit with not only gaining experience in how to market our craft products but also making lots of contacts who could help in getting our agricultural produce onto the UK scene.

Thanks to Sukey Cameron, Kathleen Dobbyns, Debs Ford, Ian Cox and Eddie Chandler for their help and support at the shows.

# DETERMINING THE AGE OF CATTLE BY THEIR TEETH

*Report : Jeremy Challacombe*

In our recent travelling around farms, a number of people have asked about how one determines the age of cattle.

In many countries, age plays a major part in livestock trading. Most markets have age limits because age is strongly related to both meat colour and tenderness.

Most meat processors use teeth to determine the age of an animal, irrespective of the actual age. There certainly is a variation in the age at which teeth erupt. This is often correlated to whether or not an animal is early or late maturing, but can vary also between animals, probably as a result of such factors as climate or nutrition.

The following diagram on the next page shows what the teeth look like at varying stages of development:

The following table provides a guide for estimating the age of cattle by dentition:

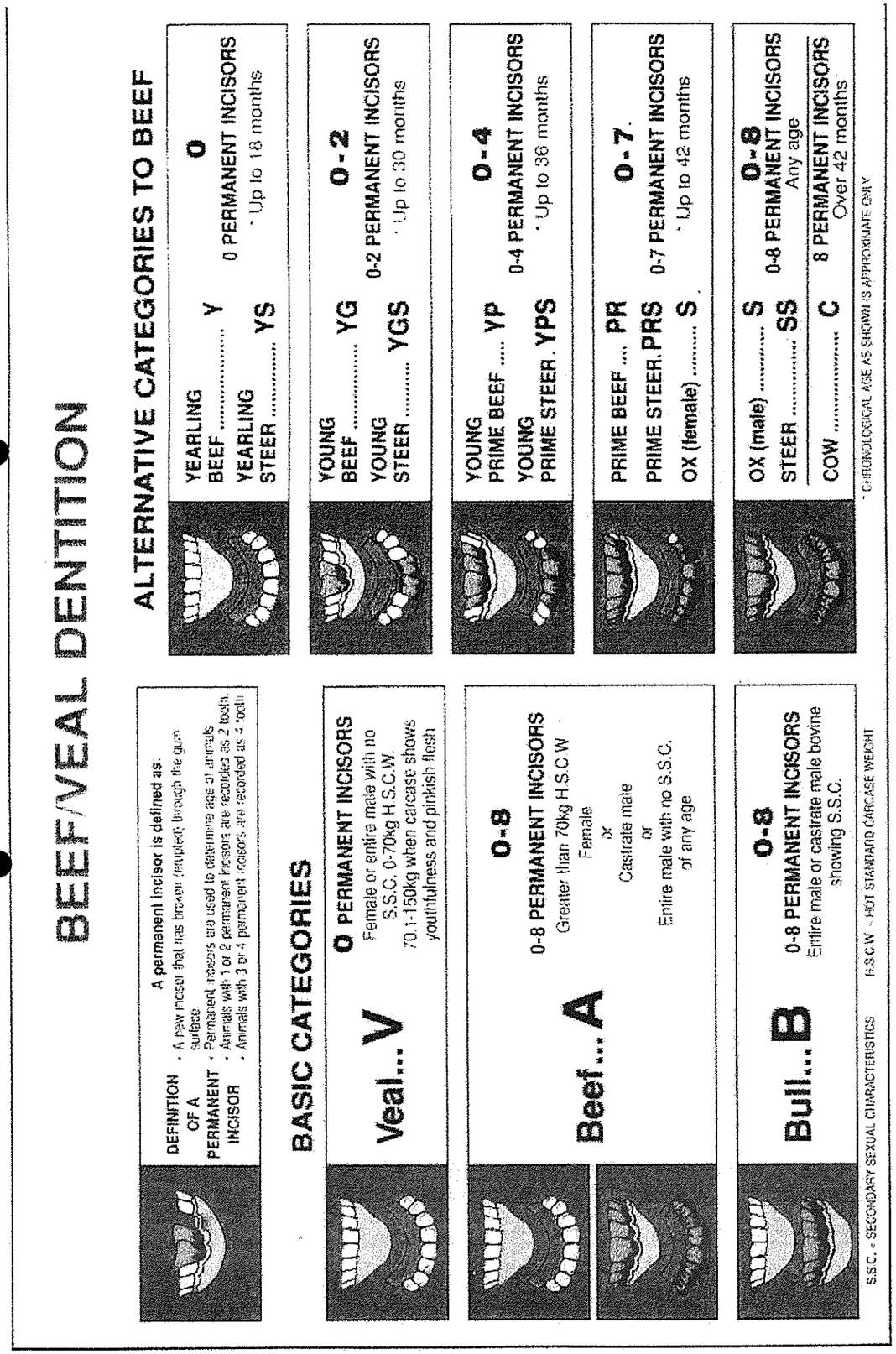
| Eruption of permanent incisors | Approximate age (months) |
|---|---|
| 0 | Less than 18 |
| 1 - 2 | 18 – 30 |
| 3 - 4 | 24 – 36 |
| 5 - 6 | 30 – 42 |
| 7 | 36 – 48 |
| 8 | Over 42 |

Ideally, one will have access to a cattle crush (or some form of head restraint) in order to be able to look at the teeth. (It is very difficult without!).

With the head restrained, hold the top lip open by lifting up the nose and then pull down the bottom lip. The stage of tooth development is quite obvious.

As cows age, so their teeth get worn down. This can be exacerbated by grinding on hard material (such as ash falls after volcanic disturbances). Eventually, teeth either fall out or virtually become worn away. At this stage, it is difficult for animals to get the feed they require and they often fall away in condition. Generally, it is wise to cull cows for age prior to the natural wearing away of teeth

***NOTE:*** *If you would like to have a colour diagram, please give me a call and I will get one to you.* ***Charlene***



# EXOTIC DISEASE UPDATE

*Report : By Cameron Bell*

A video and discussion session on exotic livestock diseases during Farmers Week saw a good turnout of participants. When we talk about exotic diseases of animals, we mean diseases absent from the Falklands. With our excellent animal health status, many diseases are exotic to the Falklands, however it is the 'biggies' such as foot and mouth disease, rinderpest and swine vesticular disease that tend to take the limelight.

These diseases are particularly important because they tend to be highly contagious, spread rapidly irrespective of national borders and can have serious socio-economic and/or public health consequences.

Recent outbreaks of foot and mouth disease (FMD) in the Republic of Korea (ROK) and Japan highlight the importance for continued vigilance, to keep these diseases out. In March this year, the ROK reported a suspected outbreak of FMD, the first time since 1934. Further outbreaks occurred and ultimately, approximately 800 cattle were destroyed in the 'stamping-out' programme. Despite a total of 15 outbreaks, the ROK was able to contain the outbreaks successfully through the prompt and efficient implementation of control measures including movement restrictions, stamping-out and emergency vaccination. Several possible means of introduction of the FMD virus have been identified, including via humans (e.g. people who had visited FMD infected places overseas could have introduced the virus through contaminated clothing, footwear, equipment or products), imported hay or windborne spread of virus or contaminated debris.

Similarly, the recent outbreak in Japan was the first since 1928. Another outbreak of FMD occurred in Taiwan in 1997. Before then it had been free of FMD since 1928. Until March 1997, Taiwan had a population of about 14 million pigs, with an annual export trade to Japan of six million carcases worth about US$1600 million. In total, 6147 farms became infected during a four month period, 180,000 pigs died and 3.85 million pigs were slaughtered in the eradication response. Estimated total direct cost was about US$380 million, with more than 65,000 jobs lost due to flow-on effects on other industries. It was believed that the FMD outbreak in Taiwan resulted from illegal movement of pigs. Imagine how FMD would affect our cattle, sheep and pig industries. In one word: devastating.

There are some good lessons in these examples for the Falkland Islands. Outbreaks of FMD can occur in previously FMD-free countries very easily. Because all cloven-footed animals are affected, an outbreak in the Falkland Islands could have devastating effects on the farming sector, as well as national economy. This is good justification for strict quarantine regulations for animals and animal products, increased vigilance at entry points and awareness by farmers. Any unusual conditions in livestock suggestive of any exotic disease should be immediately reported to the Department of Agriculture Veterinary Service.

**Copies of the exotic disease video shown at Farmers Week are available for loan. Please contact Maggie Battersby at the Veterinary Service to arrange for a copy.**

# WHICH FORAGE CROP?

*Report : Sean Miller*

Which of the forage crops were the best this year? A quick reminder first; all crops were sown during the first week of December 1999, and 250 kg of 20:10:10 fertiliser was applied. This gave the crops 50 kg of nitrogen (per ha) – nitrogen being the most important nutrient for forage crops.

| Species | Cultivar | Yield (tonnes/ha) | | | Protein (%) | | Feed during |
|---|---|---|---|---|---|---|---|
| | | Tops | Bulb | Total | Tops | Bulbs | (guide only) |
| **Turnip** | Mammoth | 0.4 | 3.3 | **3.7** | 17 | 8 | M/Ap/M/Jn |
| | Green Globe | 1.4 | 9.8 | **11.2** | 20 | 9 | M/Ap/M/Jn |
| | Barkant | 2.0 | 10.6 | **12.6** | 16 | 9 | M/Ap/M/Jn |
| | Samson | 1.8 | 12.4 | **14.2** | 17 | 11 | M/Ap/M/Jn |
| **Stubble turnip** | Appin | 7.0 | 3.9 | **10.9** | 12 | 6 | Ap/M/Jn/J/Au |
| **Swede** | Highlander | 0.6 | 5.0 | **5.6** | 15 | 6 | Ap/M/Jn/J/Au |
| | Ruta Otofte | 2.1 | 14.8 | **16.9** | 17 | 8 | Ap/M/Jn/J |
| **Chinese Cabbage** | Pasja | ~4 | ~2 | **~6** | 18 | - | M/Ap/M/Jn/J/Au/S |
| **Kale** | Bittern | 2.3 | - | **2.3** | 10 | - | M/Jn/J/Au/S |
| | Provera | 2.9 | - | **2.9** | 10 | - | M/Jn/J/Au/S |
| | Keeper | 8.4 | - | **8.4** | 10 | - | M/Jn/J/Au/S |
| **Rape** | Winfred | 1.0 | - | **1.0** | 15 | - | M/Jn/J/Au/S |
| | Hobson | 4.1 | - | **4.1** | 13 | - | M/Jn/J/Au/S |

***Best for sheep***

The two outstanding plants for sheep are undoubtedly Pasja and Appin stubble turnips. Both of these plants have lots of green leaf that lasts well into winter, they have little bulbs, and more importantly both regrow after eating. Planted early in the year (October) you should be able to get at least two grazings off these crops by mid winter (one during summer, and then the regrowth during winter). Both crops have ample protein and energy and can support growth rates in lambs in excess of 250 grams per day (about 1.5 to 2 kg per week).

The kales and forage rapes are also well suited for sheep since they are leafy plants, however they were not as high yielding as some others, and require relatively higher levels of fertility (nitrogen and calcium).

Certainly the leafy plants with little or no bulb are easier to feed out to sheep, lambs particularly, and are used more efficiently as less feed is wasted.

***Best for cattle***

Again, Pasja and Appin are well recommended for cattle. Also, Barkant and Samson turnips have yielded excellent late autumn and early winter feed. They have lots of bulb and are eaten well by cattle.

Of the swedes, although Ruta otofte was higher yielding than Highlander (at the same level of fertiliser application), Highlander holds its leaves into winter and may thus offer better late winter feed than Ruta. Also, Highlander responds very well to a little more fertility. Where we threw a bit more N on, yields increased to about 15 tonnes per ha. We'll know more about Highlander as the winter progresses and after some yield response work with varying levels of fertiliser applied next season.

When you consider that one fully grown sheep eats 1 kg of dry matter per day, 10 tonnes of dry matter per hectare (or 10,000 kg/ha) of green, leafy forage crop potentially feeds a lot of valuable animals.

Initial costings (including fertilser, seed, and fuel) suggest that the cost of feed produced by these crops varies from about 0.7 to 1.5 pence per kg.

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## MONTHLY BEEF RECIPE

### Beef Provencal

A recipe from the Mediterranean that makes use of diced beef taken from the boneless shin, chuck, skirt or round.

750 gm of diced casserole beef (from the above cuts)
1 tablespoon olive oil
1 sliced onion
1 diced red capsicum
125 gms button mushrooms
0.25 cup of pitted black olives
1 tablespoon chopped mixed herbs (basil, oregano, etc)
2 bay leaves
400 gm can of tomatoes (plus juice)
0.25 cup red wine
Cracked black pepper

- Heat a little oil in a deep sided pan on high and fry onion until brown. Remove and put aside.
- Heat more oil on high. Brown beef in small batches removing each batch before adding the next. Return beef and onion to the pan.
- Add the remaining ingredients. Stir well.
- Reduce heat to low, cover and simmer until fork tender. Cook for between 1.5 and 2 hours . Stir occasionally. Season to taste.

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## SOUTH GEORGIA REINDEER

***Report : By Cameron Bell***

Reindeer were introduced to South Georgia from Norway in the early 1900's by whaling companies operating on the island. Today, two separate herds exist on South Georgia, and total approximately 3000 animals. The two herds are separated from each other by large mountains and glaciers, which also define the range available to each herd. Various means of management are now being considered by the Government of South Georgia and the South Sandwich Islands, as glacial recession may allow the reindeer to extend their range.

The idea of translocating reindeer from South Georgia to the Falkland Islands is not new, and has been discussed by previous government staff and members of the general public. Farming of reindeer here would be unique for the Southern Hemisphere, as reindeer are only native to the Northern Hemisphere, although reindeer were also introduced to Isles Kerguelen (south of India at approximately 50°S).

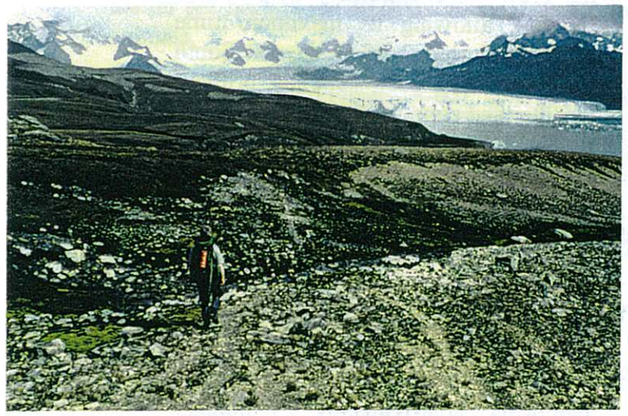
Charged with the task of investigating the capture and translocation of South Georgia reindeer, I arranged a visit to South Georgia during February 2000, accompanied by Emeritus Professor Robert Dietrich (Bob). Bob worked with the University of Alaska for over 20 years, studying reindeer disease, transportation and management. He worked very closely with the native reindeer herders in Alaska, undertaking research projects with them and establishing extension services to the reindeer industry. Although retired from the University now, he still provides a private consultancy service to reindeer farmers in the lower 48 states of the USA, where reindeer are raised in small numbers primarily for exhibition purposes rather than meat or antler production as in Alaska and Scandinavia / Russia.

The 3 day voyage to and from South Georgia was undertaken on the Falkland Island guard ship HMS Dunbarton Castle, captained by Lt. Commander John Foreman. John and his crew were extremely helpful and flexible, allowing us maximum time on-shore during the 3 ½ days at South Georgia. They even supplied brilliant weather and calm seas.

Within 30 minutes of arriving on-shore at King Edward Point, Sarah Lurcock had Bob and I in her house, serving us hot drinks and cake. Definitely the best teahouse in the South Atlantic! A couple of hours later, Pat Lurcock (South Georgia Marine Officer) was accompanying Bob and I to the Barff Peninsula, approximately 25 minutes away in a RIB boat. Landing near the Sörling Valley, we spent a few hours walking inland, observing the reindeer, which lived up to their reputation of being extremely flighty!

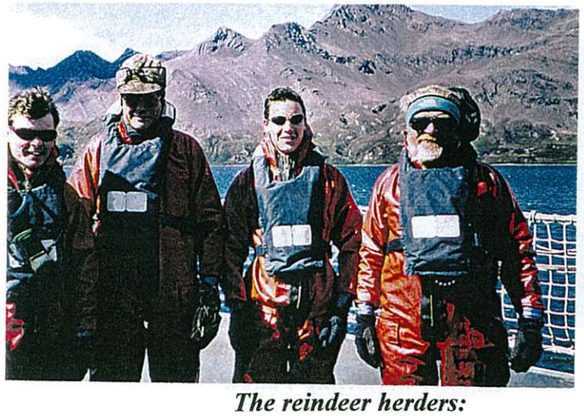
***Reindeer keeping their distance in Sörling Valley.***

Attempts to herd these animals failed because of their easily-'spooked' nature. Our failed attempt took us, however, close to the mouth of the mighty Nordenskjöld Glacier. With the thunderous roar of ice calving off into the dead calm water, this magnificent sight kept us in awe as we waited on the beach for our boat to return. Dinner at the military garrison and a slide show that evening finished off the day with new-found friends.



***Heading towards the Nordenskjöld glacier***

The following day saw Tim Carr (South Georgia Museum) and his GAP-student nephew, Matt Thomas, join us onboard the Dunbarton Castle for a visit to the second reindeer herd, known as the Busen herd.

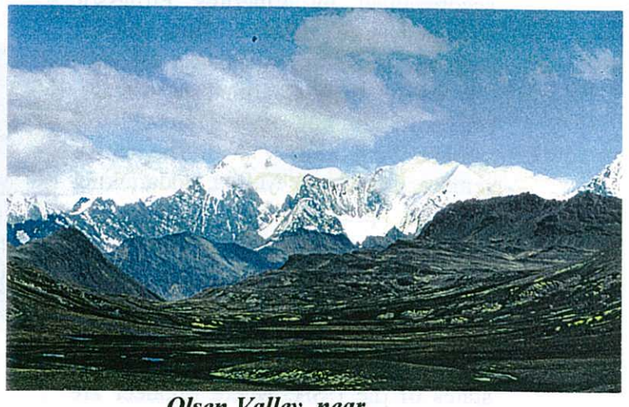


***The reindeer herders: Cameron, Bob, Matt and Tim.***

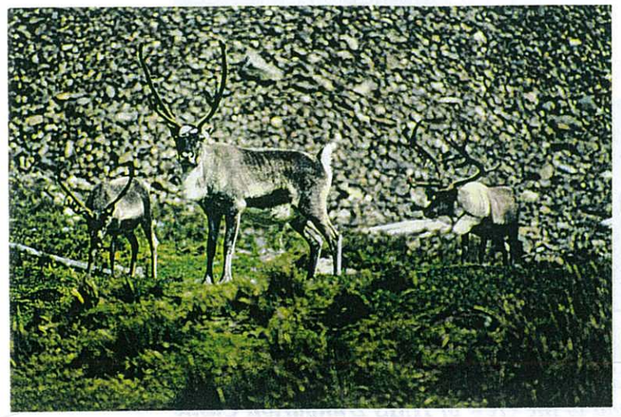
Based at Husvik whaling station (and overnighting in the old manager's villa), we investigated reindeer in the Olsen Valley (south-east of Husvik) and near Stromness whaling station (where we met Arved Fuchs' team, who had the day before completed the sea and land re-enactment of Earnest Shackleton's famous journey).

***Husvick manager's villa.***

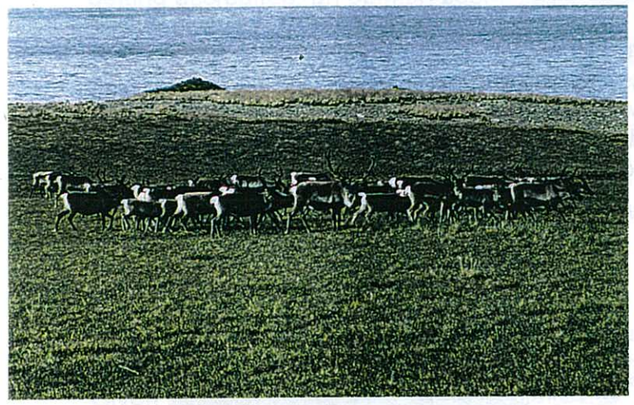
The reindeer here were similar in appearance to those of the Barff Peninsula herd, however were very different with respect to their behaviour. For example, Tim and myself herded one group of about 100 animals for approximately one kilometre. With better communication and planning we could have taken them further.



***Olsen Valley, near Husvick Whaling Station***

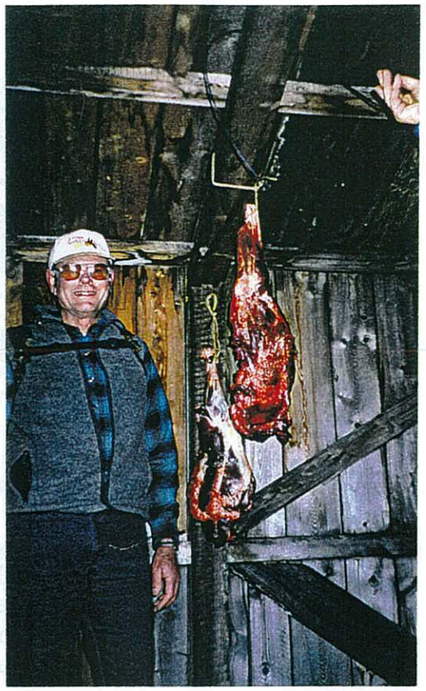


***Reindeer near Stromness Whaling Station***



***Small herd of reindeer.***

We enjoyed a dinner of reindeer meat whilst at Husvik – the victim of Bob's trigger finger (actually shot from the veranda of the manager's villa). A total of two adult animals were shot primarily for post mortem examination. No abnormalities were detected and the meat was a nice bonus!



***Reindeer meat hanging in the EU approved slaughterplant!***

After two days alone at this site, we returned to King Edward Point and overnighted in the Grytviken whaling station, staying in the 'Little Villa' with Matt and his twin sister (also a GAP student) Rosy. A whirl-wind tour of Grytviken the following morning, along with the obligatory photo next to Shackleton's grave and South Georgia passport stamps, were squeezed in before our departure from this unique, special island. Despite the Dunbarton Castle running on only one engine, because they didn't have a spare bolt (yes, true!), the ship's crew got us back to the Falkland Islands ahead of time, via Bird Island. The iceberg / whale / bird watching on the return trip was broken up by Bob and I preparing the reindeer meat for the ship's crew. A reindeer roast for the crew was the culmination of the 'reindeer fever' Bob and I had spread on-board!

***Reindeer fever had spread to the crew of HMS Dunbarton Castle***

Considering the behaviour of the reindeer, terrain for herding and available facilities, we decided the Busen herd was most suitable for capture of animals. Adjacent to the Husvik manager's villa was also a flat area suitable for the construction of a suitable corral / holding facility. Further, the manager's villa could comfortably accommodate 10 to 15 persons for several weeks. This building has been used in the past by BAS, hence it has been maintained quite well in contrast to the rest of the whaling station. In Bob's opinion, the herding and holding of reindeer at this site is feasible, as well as the transportation from South Georgia to the Falkland Islands.

***Reindeer bull.***

Pat and Sarah Lurcock, Tim and Pauline Carr, Matt and Rosy Thomas, John Foreman and his crew, Gordon Liddle and FIDC must all be thanked for their assistance in arranging and undertaking this feasibility study.

## Q.F.W. – Farmers Week update.

***Report : Lucy Ellis***

During this years' Farmers Week the Q.F.W scheme was discussed on numerous occasions, indicating widespread interest. . The Q.F.W. meeting in the Refreshment Room, attended and fully supported by Peter Marriott and John Milne as well as numerous farmers, gave the chance to air views and concerns and hopefully to change interest into action.

However, what did make itself very apparent was the scepticism that the whole scheme was held in, mainly because of the monetary bonus, or, more importantly, no bonus benefits that yet went with it. Also the myth that it will cost a fortune to get your shed upgraded and the worry about sub-standard rousies.

One farmer said that his shed could be passed tomorrow but hadn't bothered as in his opinion it had to be 'all or none,'meaning every farm in the Islands getting accredited, an opinion seemingly shared by a few.

This comment was picked up by Peter Marriott who has stated before that until he can get a big enough amount of Q.F.W. wool the interest from buyers to pay a premium to buy guaranteed quality wool isn't going to happen as the present amount is too small.

Peter has also said, as has Robert Hall, who is also a staunch Q.F.W supporter, that buyers are noticing the logo and the interest is there, but, again, there isn't enough.

It's unfortunate that some farmers are so negative as, we assume, that most, if not all, will be preparing their wool to the highest possible standard anyway. Given that, it seems nonsense to not take that one extra step, do the shed up, get accredited and support the scheme.

To go back to farmers' worries; it does not cost a fortune to up-grade your shed, the biggest expense will be the lighting and that won't break the bank. The best way to put your mind at rest is to go and look at a Q.F.W passed shed. It was suggested that at one of the future 'Farm Open days' that a visit to a Q.F.W shed be on the agenda.

The subject of sub-standard rousies is a big problem and one that needs addressing urgently. But before I go on I must inform you that as far as the shearers go the scheme gets a most positive gold star, they said that as soon as they walked into a shed they knew if it was Q.F.W. or not. When asked why, they said the sheds were "as a rule: cleaner; better organised; lighter; well laid out with bins etc clearly marked and a happier and more positive attitude" the shearers also knew what was expected of them and were happy to comply.

Last year, at the 'Estancia', Paul Phillips's wool handlers went through a basic course and maybe the time has come when **all** wool handlers should complete a course of some sort. We also think it important that the shearing gang bosses get together with members of the Farmers Association and the Q.F.W committee so they can be brought up to scratch and maybe a few ground rules laid down.

Doug brought up one point that may become crucial to the future Q.F.W scheme, that of crutching pre-shearing. It was met with stunned silence! It **is** going to come up again so those who have now got over the shock may be advised to give it some serious thought. (In the Oz/Nz quality assurance schemes, crutching is non-negotiable; it is imperative)

One other point that Lyn and myself have mulled over is the importance of using a stencil to mark your bales in preference to handwriting it. As with every product that's marketed it's a well known fact that the packaging is as important as what's inside so if it looks better it will sell better.

If you send just one bale away that is sub-standard, you not only discredit yourself but the whole scheme, the years of hard work gone into it and the good name of Falkland Islands Wool.

If you have any worries or queries please don't hesitate to contact Doug, a Q.F.W committee member or myself, we are keen to hear from you!

And lastly, please remember that the scheme was put in place to help you, it is also voluntary and as such it is up to you to keep up to the standards you have chosen to abide by or aim higher!

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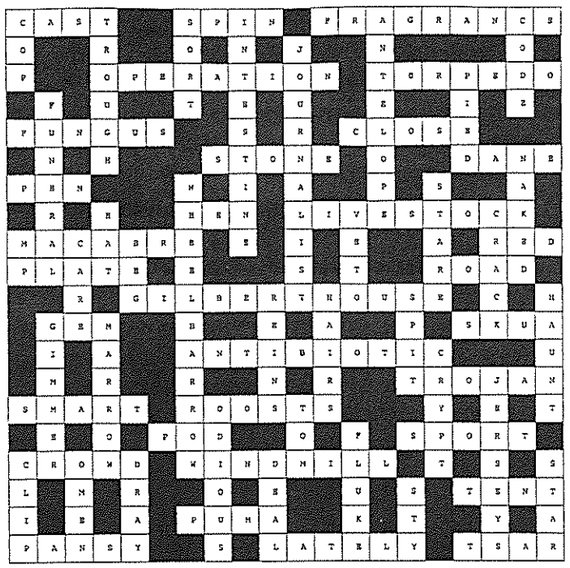
## LAST MONTH'S ANSWERS TO THE CROSSWORD



## HOT TIPS FOR WOULD-BE MARKETERS

*(Source: Rural Vision 7 July 2000)*

***I thought this article would be a good follow up from last months article that Mandy McLeod wrote:***

A Byron Bay (Australia) businessman reveals his ingredients for success:

John Boland's taste for chilli sauce and chilli salsa has taken him a long way from his local market in Byron Bay, on the north coast of New South Wales, Australia.

Several years ago John started selling tacos with home grown chillies made into sauces at the local market. His delighted customers encouraged him to approach a few local shops to sell his product.

Successful trials in three major local supermarkets led to his product being distributed Queensland-wide and then nationally several years later. John is now exporting to New Zealand, and has the United Kingdom is in his sights.

The secret of his success, he say, is marketing, which he considers the most important feature of business development.

"A lot of people can make a great homemade chutney or whatever, but can they make it at the right price, package it attractively, sell it at the right place, and make people aware of it?"

To become competitive in today's international markets, producers need to take into account three essential parts of the export cycle: marketing, negotiation and procedures such as working with import regulations in different countries.

John has engaged a distributor to make exporting and dealing with overseas markets and the range of export and import restrictions easier. His distributor deals with overseas suppliers and retailers, and also advises on marketing. The business is keen to take advantage of the 'clean and green' image that international markets have of Australian products.

In Australia, John's marketing strategy uses nationalistic labelling on his product. All his sauces carry an Australian flag and emphasis that the product in Australian owned and made.

"I would strongly advise everyone involved in the food business to take at least a basic course in marketing," he said. "It sounds really dry, I know, but it can become a very creative exercise."

John also strongly advocates talking to as many people in the industry as you can, listening to feedback from customers and the public and writing a business plan.

John also states that "Remember it's OK to think big, providing you back it up with lots of planning and realism".

*For more information contact:*
John Boland, Byron Nay Chilli Company Pty Ltd. Email: john@byrinbaychilico.com.au
Website: www.byronbaychillico.com.au

## ORGANIC PRODUCTION – PRACTICE AND CERTIFICATION

*Report : Ian Cox – FIDC, London*

Demand for organic food in the European Community is growing at the rate of 20% per annum and currently 70% of consumption is imported. Producers are working to fill the gap but it will be many years before demand can be satisfied by Community sources. Presently the main market is for vegetables but demand is growing for dairy products and meat. Current demand for certified organic meat of all types in UK cannot be satisfied; some buyers quote a 90% shortfall! Organic wool is in demand from eco-textile manufacturers and fish is increasingly discussed pending establishment of organic fish standards

Falkland farmers are aware of the potential for organic meat, poultry, fish and wool production in the Islands and it is opportune to explain background to the production standards and certification aspects of organic farming which the Department of Agriculture and FIDC will be managing.

Basically countries have one or more Organic Inspection and Certification Agencies, publicly or privately owned, that ensure production methods are in accordance with laid down principles and standards and certify the final product as "organic" with their own specific logo assuring the final consumer of this fact. Agencies, whatever they are certifying be it organic produce, oil tank capacity measurements or quality of concrete, operate to strict international standards governing their practices.

Compliance with both production and certification standards enables a country's produce to be sold to consumers as organic. It is advantageous for countries exporting to the EU for their certification procedures and logos to be accepted by EU Member States thus allowing red-tape-free entry. To achieve this status it is necessary to satisfy the Commission as to inspection and certification procedures and gain entry on to what is termed the EC Article 11 Third Country List. Exporters not on the list, despite having their own certification authorities, have to arrange with the importer for certification by qualified bodies at the port of entry; expensive and time consuming.

In the UK the United Kingdom Register of Organic Farming Standards (UKROFS), an offshoot of MAFF, governs the activities of seven inspection and certification agencies. There is considerable competition among agencies to gain market share with their particular brand. However the EC has produced its own universal assurance logo for EC organic production and consideration is being given to extending this to imported organic produce. It is no doubt intended that this becomes the primary assurance logo for the consumer within Europe.

In the Islands, the Department of Agriculture bears both the role of UKROFS and the Inspection/Certification Agency. Branding will develop within the overall branding exercise being progressed by FIDC.

In summary, steps to achieve acceptance of organic produce in export markets are:

- establish organic production standards equivalent to EEC2092/91 and amendments including livestock standards coming into effect in August 2000
- concurrently establish an effective and independent system of inspection and monitoring to ensure farmers produce to organic standards and certify the resultant produce
- confirm that the inspection and certification system complies with EN45011 (ISO 65), "General requirements for bodies operating product certification systems", through accreditation by an internationally recognised body, for example the UK Accreditation Service, UKAS, or the French equivalent COFRAC, and
- gain membership of the EEC 2092/91 Article 11 Third Country List of organic exporters to the European Community

A two year "in conversion" period for farms is normal before full organic certification is granted. There may be market opportunities for "transitional product" during that period however whilst production is being geared up to meet demand such produce, wool excepted, may not be an issue.

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## MYSTERIOUS LIGHTS OF NATURAL PHENOMENA

*Report : Jim Elliott ex Meteorological Officer*

*A little light reading from Captain Fitzroy.*

"While walking the deck after dark, I sometimes saw flashes of light on the distant hills, which it was difficult to account for as 'ignes fatui, (phosphorescent light on marshy ground though to be due to spontaneous combustion of gases produced by decaying vegetation) because they were seen only on the heights, and momentarily, long intervals intervening between each faint flash. I once remarked similar instantaneous glimpses of feeble light, like the flashing of a distant pistol, near Pecket Harbour in Magalhaens (sic) Strait, during a rainy night but on the hills, at the south side of Berkeley Sound, I witnessed such lights repeatedly. They were never bright or lasting – merely a faint glimmer – exactly as I have said, like the flash of a pistol, fired at a great distance".

So wrote Captain Fitzroy in his "Narrative of the Voyage of the Beagle", which languished in obscurity when compared with Charles Darwin's "Narrative". But although Fitzroy might appear as a rather dull writer, there can be no doubting his skill as a seaman, navigator and surveyor, and a keen-eyed observer of natural phenomena, acutely sensitive to anything which might hazard the safety of his ship and its anchorage. In the incredibly clean Falklands' air, when the Milky Way seems almost solid, flashes of light can be observed over large distances. One can only be impressed by Fitzroy's skills, and comments made by him must be worthy of serious consideration. I have pondered on his mysterious lights for many years (without conclusion), and now I wonder if there is anyone willing to offer a theory? Though it a modern world filled with talk of UFO's, where satellites or pieces of space junk can be observed every few minutes in a cloud free Falklands' sky it is far too easy to dismiss unprejudiced observations made through the eyes of a good-fearing ship's Captain.

Fitzroy sailed "Beagle" to the Falklands twice – in 1833 and 1834, on both occasions in March and early April – close to the Equinox, so that with equal day and night, the length of complete nightime darkeness would be nearer 10 hours, allowing a lengthy period for noticing any strange lights. Also on both visits, the ship was anchored in Berkeley Sound, so that the hills to the south side of Berkeley Sound would be mainly The Wickham Heights, and the extension eastwards. Apart from distant lightning (unlikely to occur over several nights), there is a selection of possibilities, but like the theories for the development of stone-runs, every theory fails for one reason or another.

To the south of Berkeley Sound: could there have been lights in Port Harriet or Stanley Harbour in 1933/34 which could have reflected on a low'ish cloud base? Or could light (natural or human) have reflected by the small ponds which occur at high level on mountain ridges? Those in the Stanley area who have noticed the reflection of the rising sun on the stainless steel cross on Wireless Ridge must be impressed by its brightness reflected from a small object. Similarly the

reflective quality of the mineral content of the quartzite outcrops, even in starlight, is quite impressive – The Camber, for example.

Looking south (in March) suggests 2 other possibilities. Aurora is possible but unlikely. A rare cloud condition, known as "Noctilucent Cloud" could be observed in March for only for a very short period. Astronomical phenomena would be unlikely to puzzle Fitzroy, even unusual meteor shower activity. Camp fires – either man made or from lightning strikes to the south of The Wickhams might be visible intermittently if reflected by rocks or pools.

But what about Captain Fitzroy's own theory? He thought that "these momentary flashes might have been caused by the occasional fall of stones among ravines, near the summit of hills. The shattered state of most summits of mountains in these regions...there may be some connection between these sudden glimpses of faint light and the transmission of the electric fluid. This much I am certain of, that they were not lights made by man, and that they were different from the will-o-the-wisp, or ignes fatui". He then quotes Bourgainvillle, who has written about his examination of rocks over 60 years earlier, again in the Berkeley Sound/Port Louis area. He concludes that "Journeys... to the very tops of mountains .... Have never procured any other than a kind of quartz, and a sandstone, not friable; which produced sparks, and even a kind of phosphorescent light, accompanied by a smell of brimstone".

***References:*** *"Narrative of the Surveying of His Majesty's ship* ***Adventure*** *and* ***Beagle*** *between 1826 and 1836 Vol 2, 1839. "A Voyage Round The World" De Bougainville translated from the French in 1772.*



## Peanut and Raisin cookies by Lilian Wallace

*Makes 30*

***Preparation time 15 minutes***

***Cooking time 15 minutes***

- 125g (4oz) butter or margarine, softened
- 150 g (5oz) caster sugar
- 1 egg
- 150g (5oz) plain white flour
- 2.5ml (½ tsp) baking powder
- pinch of salt
- 125g (4oz) crunchy Peanut butter
- 175g (6oz) raisins or currants

**Freezing suitable**

1. Put all the ingredients except the raisins or currants in a bowl and beat together until well blended. Stir in the raisins or currants.
2. Spoon large teaspoonfuls of the mixture onto lightly greased baking sheets, leaving room for spreading.
3. Bake at 190°C (375°F) mark 5 for about 15 minutes, or until golden brown around the edges. Allow to cool slightly before lifting onto a wire rack to cool completely.

**Variations:**
**Chocolate nut cookies:** Omit the peanut butter and raisins and add 5ml (1tsp) vanilla essence. Stir in 175g (6oz) chocolate drops and 75g (3oz) roughly chopped walnuts.

**Coconut and cherry cookies:** Omit the peanut butter and raisins/currants, reduce the sugar to 75g (3oz) and stir in 50g (2oz) desiccated coconut and 125g (4oz) rinsed, dried and roughly chopped glacé cherries.

**Oat and cinnamon cookies:** Omit the peanut butter and raisins and add 5ml (1tsp) vanilla essence. Stir in 5ml (1 tsp) ground cinnamon and 75g (3oz) rolled oats.

## EMAIL DISCUSSION GROUPS

***By Cameron Bell***

Email discussion groups (sometimes referred to as electronic mailing lists) are groups of people who use electronic mail (email) to discuss a topic of common interest. Messages sent by any member of the group are distributed to all other members. The discussion groups are run automatically by software on a central computer. The software collects and distributes messages, joins new members and provides some help.

Several staff of the Department of Agriculture subscribe to email discussion groups run by the Queensland (state of Australia) Department of Primary Industries (DPI). These groups have no charge for participating in them. Depending on the specific group you subscribe to, the number of postings will differ greatly – some have several per day, whilst others may only have 1 or 2 per week. You have a choice of either receiving all these postings separately or as 'digests' where several postings will come as one email.

The beauty of such a system is that you can post a query for the cost of an email and have several responses very quickly. It's also a great way just to keep up to date with current issues.

The DPI has created over 40 discussion groups for farmers, ranging from cattle and sheep, through to crocodile, emu, avocados and forestry. The complete list can be found at the following we site:

http://lists.dpi.qld.gov.au/index.html

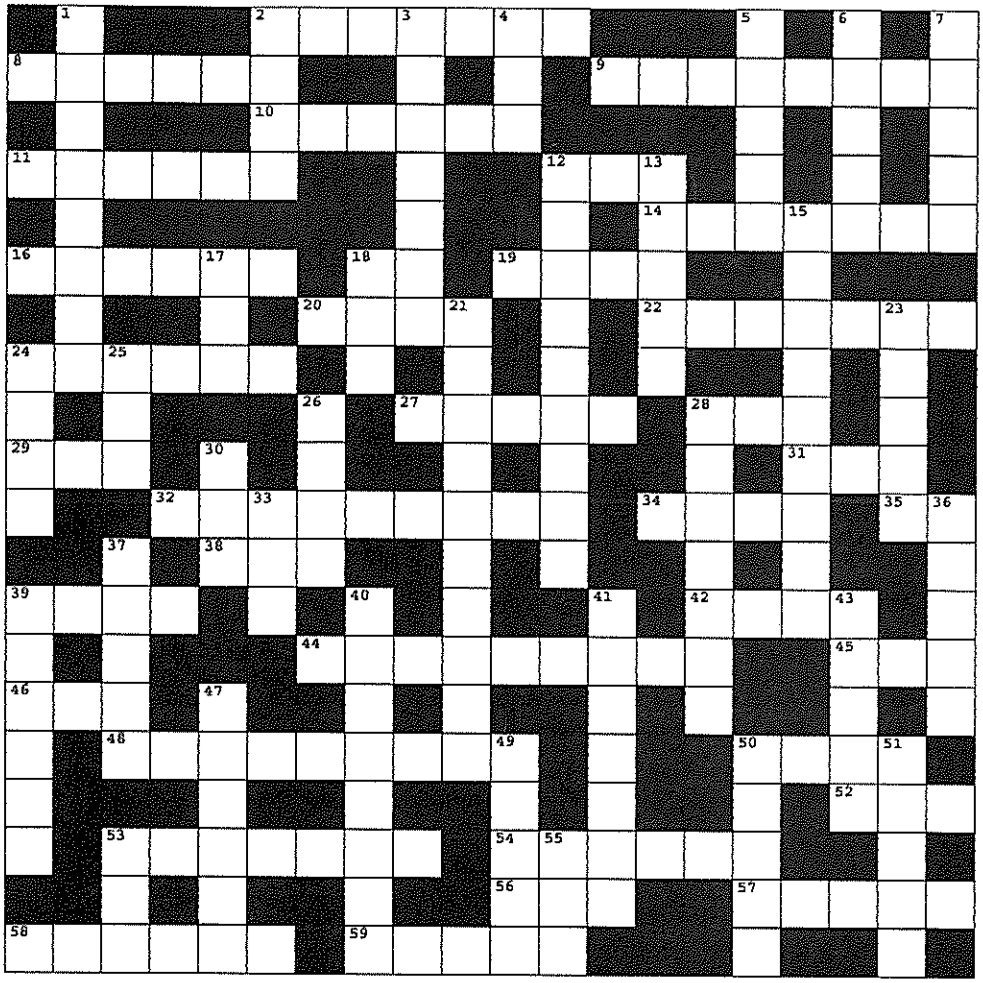
From here, you can select the appropriate discussion group(s) you would like to subscribe to, and then follow the on-screen instructions. The most relevant sites are probably AUSSIE-BEEF-NET and AUSSIE-SHEEP-NET. Once you subscribe, you'll receive an email which needs to be replied to for confirmation of your subscription (instructions will be included) and then you'll be on your way.

Talking about the internet, a useful site I often use is:

http://farmwide.com.au

**It has lots of rural information (both Australian and overseas) and also provides lots of links to other agricultural sites.**

AUGUST



ACROSS

2. MOBILE
8. MONEY GIVEN BACK
9. SEA MAMMAL
10. CUT THINLY
11. ?MAN'S LUNCH - PRIMARILY BREAD, CHEESE AND PICKLES
12. FEMALE PARENT
14. SALTY FISH
16. END
18. GET DONE
19. BY AN UNKNOWN AUTHOR
20. LYRICAL TUNE
22. FOOD CONNOISSEUR
24. TAKE NO NOTICE OF
27. MAIN ARTERY
28. ENEMY
29. BABY'S BED
31. POSE FOR ARTIST
32. OFFER TO DO SOMETHING
34. MILK MEASURE?
35. THAT MAN
38. GROUP OF SHEEP
39. LEFT SIDE OF BOAT
42. FRUIT FILLED PASTRY CASE
44. EGG PLANT
45. FISHING TOOL
46. CHOPPER
48. YOUNG BIRD
50. HASTY SKIN CONDITION?
52. GARDEN TOOL
53. WOODWORKING SKILL
54. MUSIC SYSTEM
56. SMALL GARDEN BIRD
57. 14 POUNDS
58. JUMPER
59. YELLOW FLOWERED SHRUB

DOWN

1. OLD FIVE PENCE
2. NET
3. SALE BY LOTS
4. BOY
5. OF SIGHT AND THE EYE
6. BLACK AND WHITE HORSE
7. FRUIT
12. SMALL VERSION
13. SKIN CONDITION CAUSED BY MITES
15. REAPER
17. KNIGHTED MAN
18. CANINE
21. LARGE EAST SETTLEMENT (5,5)
23. FOX HOME
24. SMALL IMPERIAL MEASUREMENT
25. LOUSE EGG
26. FOOD
28. BATTERED, FRIED FOOD
30. MALE CAT
33. A LENGTH OF TREE ?
36. WEAR AWAY
37. MENTAL ANGUISH
39. BODY ORBITING THE SUN
40. LARGE LEAPING REPTILE (4,4)
41. VEST
43. RUBBISH
47. WANT
49. STRONG WINDS
50. BIRD SLEEPING PLACE
51. HUNTING DOG
53. JAM POT
55. NECK WEAR

# The Wool Press

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**All the regular features and more!**


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**NATIONAL BEEF HERD – SALADERO/BRENTON LOCH & CONDITION SCORING IN BEEF CATTLE**
*By Jeremy Challacombe*

**WOOL DEMAND CHAINS**
*By Robin Thompson*

**HYDATID UPDATE**
*By Cameron Bell*

**AN INTRODUCTION FROM**
*By Brian Alexander*

**PHOSPHATE IN THE FALKLAND ISLANDS SOILS AND PLANTS**
*By Jim McAdam*

**ALASKA VISIT**
*By Tim Bonner and Cameron Bell*

## EDITORIAL

The Department has started to get back to normal with all the Officers coming back to work. Glynis, Timmy, Cameron, Steve and Sean are all back to work while Gillian and Aidan will be back later this month. Zoe Luxton is also back form training and is working full time in the Veterinary Services until she departs sometime in October. The Department staff would also like to wish Karen Marsh and James Wallace all the very best at College and we also wish to say a big thank you for all the hard work they achieved at Brenton Loch/Saladero over the past year.

I still have a few colour Beef and Veal dentition posters that were advertised in the last issue of the Wool Press. If you would like one please give me a call.

Enclosed in the Wool Press this month is the Farming Statistics for 1999-2000. These figures have been check and rechecked. If you think that something is wrong with your figures, please inform me A.S.A.P. so that I can correct them.

## CAMP ROADSHOW

During Farmers Week, the Chief Executive suggested that a 'ROADSHOW' should take place in the spring to give him a chance to meet more Campers and to continue the discussions that were cut short due to the tight schedule of Farmers Week. It will also give all Camp residents the opportunity to ask any questions they may have. Accompanying him will be Richard Baker (Acting General Manager FIDC), Bob Reid (Director of Agriculture) and Mandy McLeod (Agriculture).

Visits will be made during the week 9th to 13th October to Hope Cottage (Monday), Fox Bay, Port Howard, Hill Cove (Tuesday / Wednesday) Goose Green (Friday).

We hope that as many people as possible will be able to attend. A more detailed itinerary will be sent out to you and announced on FIBS closer to the time.

**THIS MONTHS CONTRIBUTORS**

| | | | |
|---|---|---|---|
| Sean Miller | Sheep Nutritionist | Cameron Bell | Veterinary Officer |
| Timmy Bonner | Agricultural Assistant | Brian Alexander | Queen's Student |
| Robin Thompson | Ex. Beef Specialist & Advisor | Doug Cartridge | Sheep & Wool Advisor |
| Jeremy Challacombe | Beef Specialist & Advisor | Jim McAdam | Queens Univeristy |
| Cameron Bell | Veterinary Officer | Timmy Bonner | Agricultural Assistant |



## NATIONAL BEEF HERD – SALADERO/BRENTON LOCH

*By Jeremy Challacombe*

### Pregnancy testing - results and discussion

We have now finally finished pregnancy testing all the cows at Saladero/Brenton Loch, and it looks like we should have 90 calves on the ground with calving commencing early in November.

A total of 171 cows were joined earlier this year. 90 cows were AI'd and all ran with the bull.

This gives an overall expected calving percentage of 53% which by itself is most disappointing. However, a close study of our results gives us high hope for the future and indicates where our problems lie.

The herd was joined in five groups, each comprising of about 35 animals. The best groups should have a calving percentage of 90%, the worst groups having a calving percentage of 12%.

The details of the groups are outlined below:

**Group 1 - Dry cows in reasonable condition grazed on native pasture at conservative stocking rates.**

(Average weight of 355kg on 20/10/00; average weight of 466kg on 1/2/00)

| | |
|---|---|
| AI | 4/2/00 |
| Keppel bulls out | 6/3/00 |
| Goose Green bulls out | 5/4/00 |
| Bulls removed | 11/5/00 |

36 cows joined, 20 tested pregnant. Calving percentage 56%.
(Prior to joining, 14 animals were thought to be barren, this was confirmed at preg.testing)
The corrected calving percentage is 87% (based on the non-inclusion of barren cows)

**Group 2 - Dry cows in poorer condition grazed on re-seeds from November 1999 to February 2000.**

(Average weight of 318kg on 20/10/00; average weight of 435kg on 1/2/00)

| | |
|---|---|
| AI | 4/2/00 |
| Keppel bulls out | 6/3/00 |
| Goose Green bulls out | 5/4/00 |
| Bulls removed | 11/5/00 |

34 cows joined, 28 tested pregnant. Calving percentage 82%.
(Prior to joining, 3 animals were thought to be barren, this was confirmed at preg.testing)
The corrected calving percentage is 90% (based on the non-inclusion of barren cows)

**Group 3 - Heifers (average joining weight of 300kg) in good condition grazing native pasture at low stocking rates.**

| | |
|---|---|
| AI | 10/2/00 |
| 2 young Angus cross bulls out | 6/3/00 |
| Bulls removed | 9/5/00 |

35 heifers joined, 32 tested pregnant. Calving percentage 91%.

**Group 4A - Cows calving or with calves at foot in poorer condition and grazing better quality native pasture at conservative stocking rates.**

| | |
|---|---|
| AI | 3/4/00 |
| Keppel bulls out | 17/4/00 |
| Bulls removed | 30/5/00 |

34 cows joined, 4 tested pregnant. Calving percentage 12%.

**Group 4B - Dry cows (mistakenly recorded as pregnant) in reasonable condition and grazing better quality native pasture at conservative stocking rates.**

| | |
|---|---|
| Keppel bulls out | 17/4/00 |
| Bulls removed | 30/5/00 |

32 cows joined, 6 tested pregnant. Calving percentage 19%.

So, what does this tell us?

The pleasing things are that cattle in the Falklands are really no different to those in other parts of the world. It is possible to get acceptable calving percentages, even off native pastures. There were a number of barren animals in the National Beef Herd (probably more than one would expect!), but once these are removed, the calving figures improve significantly. I would expect the same to be true across the islands, with a number of herds carrying higher than normal barren animals. As handling facilities and recording systems improve though, these animals will be identified and culled.

There was some concern that fungus was a problem, but this did not ring true. If it was, then there would be consistently poor percentages right across the country. Testing, laboratory analysis, and common sense has suggested that this is not responsible for poor calving percentages.

Condition plays a major role. If we look at the weight gains shown in groups 1 and 2, we can see that there was significant growth prior to joining. Cattle need to be on a rising plane of nutrition prior to joining to maximise their chances of conceiving. In the case of the heifers, a target joining weight of 300kg was achieved, the condition was good (ranging between 3.5 and 4) and the pregnancy test indicates a calving percentage of 91%.

I suspect we overlooked the obvious. What about the bulls? They had never been tested, their background was a complete unknown, although we know they came from a highly inbred herd on Keppel (inbreeding can be a major cause of infertility in cattle). It would appear however, that they are not doing their job very well at all. We borrowed a couple of bulls from Goose Green to run with some of the cows. We used two young AI bulls with the heifers. With the groups 4A and 4B however, we only used the Keppel bulls and the calving percentage was below 20%. There are a few suspected barren cows in group 4B, but even with these removed, the condition of the cows was such that they should have shown better conception rates.

Group 4A is a bit different and is probably a combination of condition, late calving and less than desirable bulls to mop up after AI.

It is very important to calve as early as possible (October/November), and then get cows on the best feed possible so that they are gaining condition prior to joining in January/February

**Conclusions**

Ensure that animals are on a rising plane of nutrition at least 6 weeks prior to joining ( I like to have cows at least in condition score 3 and rising prior to joining. Be careful that they are not too fat however, as they can sometimes be difficult to join with condition scores over 4).

Aim to join maiden heifers at 280 to 300kg body weight.

Ensure cows with calves are on the best feed possible and aim to join when the calves are at least 3 months old.

Use a ratio of one bull per 35 cows and switch bulls around if only one bull is used with a group.

Pay particular attention to bulls and if possible, get them checked/tested, especially if calving percentages are down.

Get rid of barren cows from the herd.

Ensure that new bulls are introduced into the herd frequently to minimise any problems from inbreeding.

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## MONTHLY BEEF RECIPE

### Easy Peasy Meatloaf

*An easy meal from the Meat and Livestock Australia cookbook, that can be prepared the day before and ready to put in the oven when everybody gets home.*

***1 kg beef mince***
***Chopped vegetables: corn, onion, peas, capsicum***
***2 eggs, beaten***
***2 cups soft white breadcrumbs***
***2 tablespoons of tomato paste.***

Combine all of the ingredients. Press into a deep loaf pan which has been greased and lined with paper.

Bake for 40 minutes or until meat shrinks slightly and is firm in the centre and no longer pink inside.

Stand for 5 minutes before turning out of the pan. Cut into slices and serve with vegetables.

## WOOL DEMAND CHAINS

*Report by Robin Thompson*

Traditionally, farmers and particularly wool producers have focused on what they do best – manage sheep. They then hope that there will be buyers offering reasonable prices for their produce. As history has shown us this is not always very financially rewarding. Shifting from this production driven approach to a market driven one has often been thought of as being too hard but a group of wool growers in Tasmania are achieving success and financial rewards. This is their story .

Tasmanian Quality Wool (TQW) is a quality assurance organisation made up of growers, wool brokers, wool classers and the Department of Primary Industries, Water and Environment (DPIWE). The group recognised that in order to receive premium price for their quality assured wool they needed to participate more directly in the European marketing of the product. The supply chain partnership incorporating TQW, a topmaker, a spinner, a weaver and several up market garment makers/retailers was thus born. The partnership commissioned research into German perceptions about wool and Tasmania resulting in development of a graphical image for Tasmanian wool for use on all garments and for brand protection in Europe. The partnership flow-charted the supply chain, measuring the time, cost and quality issues as inputs so as to redesign a chain that cost less, reduced inventories and reduced the shearing to garment time by half. The following outcomes and benefits resulted.

- Eight stages of wool ownership were reduced to two
- The 20-24 month lead time from shearing to sale was cut to 10 months
- A premium of over 20% was obtained for an annual forward order worth over $5 million from just one retailer/garment maker

Although a lot of effort has gone into developing this market driven approach, the benefits are now becoming apparent. Several other wool producing areas in Australia are now following this model to market their wool using the special image developed for their region and product. The success of this approach is based on recognising that consumers are in the driver's seat and commitment to the following four principles:

- Creation of a reputation for a quality product and a brand name worthy of a premium price
- Delivery of a premium price based on superior image and cost savings.
- Being responsive to the needs of the market and able to deliver according to strict time lines
- Valuing partnerships, communication and a fair and transparent sharing of benefits and rewards

This approach is far from rocket science but of course does require a desire to change, something which we humans tend to find very difficult. The concept must be applicable to the Falklands as we are both dealing with the same global market. The challenge therefore is to make it happen. There will be no best time to start but remember Tasmania achieved these results when the wool industry was at its lowest ebb in several decades.

## SALADERO / BRENTON LOCH TRAINING

The Falkland Islands Government has made financial provision to offer training periods based at Saladero and Brenton Loch. This is a great opportunity to learn more about pasture improvement techniques (including machinery use and calibration) and any other activities undertaken at Saladero and Brenton Loch (cattle, sheep, goats, etc.). Would any farmers or farm workers wanting to take up this opportunity please inform either Mandy McLeod or Owen Summers of their interests and availability.

## REPLACEMENT OF FENCE INSPECTIONS

Do you have your Replacement Fences erected, and would you like it to be inspected before shearing time? Then give me a call so that I can make arrangements with you to come and visit your farm.

*Charlene*

## HYDATID UPDATE

***Report by Cameron Bell***

It is well recognised that the incidence of hydatids in the Falkland Islands has reduced to very low levels. With continued vigilance and better surveillance with the new abattoir we should hopefully be well on the way to eradicating the disease.

Elsewhere in the world, effective control has not been achieved nor even sometimes attempted. Political instability, movement of definitive (dogs, foxes) and intermediate hosts (livestock) across borders, difficulty in gaining access to definitive hosts, the need to feed dogs dead livestock and offal in some countries, and the difficulty in treating dogs regularly against hydatids are all major difficulties faced by control and eradication programmes.

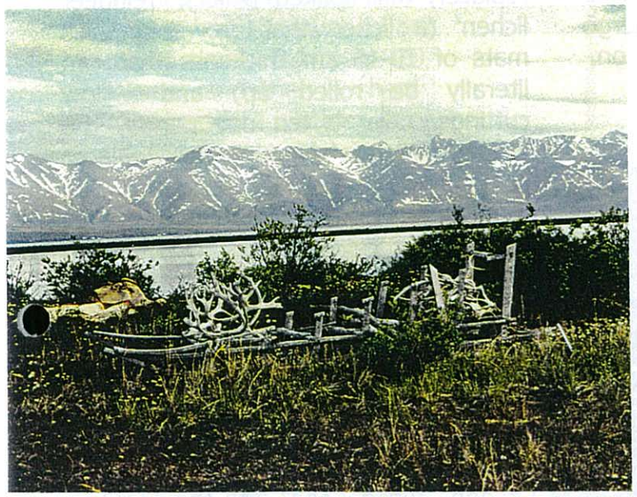
An Australian veterinary scientist, Dr Marshal Lightowlers, of the University of Melbourne, has developed an effective vaccine for use in sheep. Use of the vaccine in livestock may decrease transmission of the parasite, and, indirectly, reduce the incidence of infection in humans. Although this would not be of use in our situation (as dogs by law should not have access to livestock offal and should be regularly treated for hydatids), it could be highly effective in countries with a high incidence of hydatids and a lack of other control mechanisms. A spin off from this development is the potential use of this vaccine in humans. Although yet to be trialed, it could be a valuable option in countries where livestock vaccination and other control measures are not applicable. The vaccine has the potential to be developed as the world's first vaccine against a parasitic infection in humans. It is hoped that the vaccine could be available for use in humans around 2010.



## ALASKA VISIT

*Report by Tim Bonner and Cameron Bell*

Two Department of Agriculture staff were fortunate to visit Alaska in June/July to view the reindeer industry. Cameron Bell, as part of a feasibility study funded by FIDC, accompanied Bob Dieterich (reindeer specialist who visited the Falkland Islands in February) on a commercial operation based in Nome. Tim Bonner, by way of FIDC agriculture training funding, volunteered as a field worker on the University of Alaska Fairbanks (UAF) Reindeer Research Project (RRP), also based in Nome. Here the UAF owns a house, where they provide lodgings and meals for their workers. Tim then spent time on two commercial reindeer farms, also gaining valuable forestry experience.



***Alaskan Scenery with rugged snow covered mountains.***

Nome is situated on the southwestern corner of the Seward Peninsula, the part of Alaska that points westward towards Siberia. The journey from the Falkland Islands took 4 days, incurring 10 take offs and landings in various countries en route. The town has a population of 4,500 people, and acts as a regional center for the peninsula. Although once famous for gold, tourism now plays a major role in the town's economy.

Transport out of Nome to surrounding villages is by road, river or air. Nome airport is particularly busy, with three 737 flights a day, two or three larger freighters a day and numerous single/twin engine light aircraft! Flights to remote villages tend to be by twin-engine turboprop aircraft. Once out of town, much of the 'tundra' scenery is similar to the Falkland Islands except for two features – mountains are much higher and rugged, and there are pockets of willows. Alaska is aptly known as the 'land of the midnight sun' as summer brings 24 hours of daylight. The weather in June/July was relatively warm during the day, cooling down considerably at night.

***Herd of reindeer in a corral.***

Of the 20,000 reindeer in Alaska, approximately 12,000 reside on the Seward Peninsula. Apart from a few commercial farms near Anchorage and Fairbanks (both over one hours flight away by jet), Alaskan reindeer are primarily 'ranched' over large, unfenced tracts of land by native persons. Animals are normally herded once or twice a year for various management practices, such as antler harvesting, castration, tagging and vaccination. Herding, depending on the time of year and price of velvet, is undertaken by helicopters, snow machines and/or quad bikes.

Cameron worked with a commercial operation, which was selecting 2 month old fawns from the largest herd on the Seward Peninsula, owned by Larry Davis. The intention was to wean these animals onto pellets to enable transportation to Texas, where they would undergo quarantine, further growth and selling-on.

***Reindeer being herded by a helicopter.***

Larry's reindeer were herded by helicopter, with one herding taking 8 hours flying time. Reindeer are 'handled' in large, circular corrals. Often the facilities are run-down, patched up and quite primitive. Although some corrals are equipped with hydraulic crushes for restraining reindeer, adult animals are very easily restrained manually and can even be thrown to the ground by a single person. Body size and behaviour makes reindeer quite an easy species to work with.

Drafting of the fawns was undertaken in small pens by manually catching them. These fawns were then 'processed' – vaccinated, drenched, eyes cleaned, ear tagged and blood tested for brucellosis (testing was done on-site). Once the fawns received their various treatments, they were transported in large crates (capacity of approximately 20 animals) to a temporary holding facility in Nome, about 30 minutes drive away. Fawns were initially fed a transition diet of milk replacer, milk-soaked pellets, 'reindeer lichen' (a lichen that grows in thick mats of 10-15 cm thickness that can literally be rolled up) and willow cuttings. Over a ten day period, the willow, lichen and milk-replacer components of the diet are reduced so that the fawns are just eating pellets for the trip to Texas. In total, over 200 fawns were taken.

From Nome, the fawns were flown to Anchorage, with a few days rest before being shipped 3 days by barge to Seattle. The journey continued by road to Texas. Although 8 fawns died in Oregon when one of the trailers overturned on a main road, and 2 died at the Nome facility of unknown causes, overall there was a good survival rate considering the age of the fawns and the distance traveled.

Tim's first reindeer 'handling' was at Larry's corral. Here the RRP assisted with the tagging and weighing of fawns, and the fitting of radio/satellite collars, which are used to locate herds as no fences exist. Antlers were also being 'harvested' by the reindeer owners, bulls castrated and brucellosis vaccinations administered. One of these 'handlings' saw 1500 animals being dealt with, during a 15-hour day, finishing at 3.15 a.m.

Next Tim's group visited a smaller herd owned by Jimmy Noyakuk, travelling by road to an Eskimo village called Teller, followed by an hour and a half boat ride (aluminium dinghy) to the corral. Here they camped for 5 days, undertaking similar tasks as the previous 'handling'. Alaska was living up to its reputation here as the mosquitoes were considerably worse at this location!

To reach one of the more remote handling sites, on the tip of the Seward Peninsula at a village called Wales, Tim's group had to travel by aeroplane, with a flight time of 1 hour 20 minutes from Nome, and then a short journey on an overloaded 4 wheeler (3 persons!). Wales is the closest part of Alaska to Russia. Here, the group assisted with the 'handling' of the herd owned by the Ongtowasaruk family. This herd proved more difficult to corral: despite several 4 wheelers and one snow machine in action, the majority (approximately 1000) of the herd escaped into the waters of the Bering Sea for some time. It took several hours before the reindeer were in the corral. Again routine tasks of medication, tagging, and the antler harvesting were undertaken. This proved to be a long day, and the offer of walrus or whale blubber to eat, did nothing for the group! They were grateful for the aeroplane to be returning in 40 knots of wind, returning them safely back to Nome, for a well earned rest as 32 hours had passed since the previous sleep.

Leaving the Seward Peninsula behind, Tim flew to Anchorage to meet up with Stoney Wright, who had arranged visits to two reindeer farms. Stoney, who is employed by the Alaska State Government, has visited the Falkland Islands several times collecting plant seeds for research he is undertaking. He and his wife Sharon live just north of Anchorage, in Eagle River.

***Visitors at Tom and Gene Williams' reindeer farm.***

The first farm, where Tim stayed a couple of days, is owned and worked by Tom and Gene Williams, just outside the town of Palmer (further north from Eagle River). The Williams family imported their reindeer from Canada in 1987, having obtained permission from the Bureau of Indian Affairs, as in Alaska only natives are permitted to own the descendant reindeer. The Williams farm their reindeer for the meat, plus they have a herd of 'tame' reindeer, used for advertising, movies, and Christmas displays (pulling Santa sledges around the Anchorage/Palmer area, for children's parties etc.). This farm is also a tourist attraction, where

tourists walk amongst the reindeer and hand feed them. Tim worked with the family doing general day to day duties, assisting with the feeding etc. This farm is situated in a valley with mountains on either side, providing breath-taking scenery.

***Tim and Rudolf!***

The second farm was further inland, at Nenana (near Fairbanks). Four Tracks Farm is owned and run by Don and Genny Kratzer, and has approximately 75 reindeer solely owned by Genny, who is a native. The farm also produces trees and other landscape material. Again Tim assisted with the general daily chores, maintenance of the corral etc. A 'handling' was also experienced here with some of the field workers from the university, who Tim had worked with on the Seward Peninsula. This handling was a real contrast from those experienced on the Seward Peninsula, being considerably more animal-friendly. Fawns were prepared for sale in Canada, blood samples collected from cows, castrated animals drafted for meat sales (worth approximately US$5 per pound), routine medications administered and general monitoring undertaken.

Tim's final visit was to the University of Alaska campus at Fairbanks, where he was shown some of the research being undertaken and their experimental herd.

Both Tim and Cameron are most grateful for being provided the opportunity to experience the Alaskan reindeer industry, working side by side both locals and researchers. All those that were involved and welcomed us into their homes must be thanked. Lastly, thanks also for those who showed us that there are one hundred and one ways of preparing reindeer meat!

## AN INTRODUCTION
## FROM Brian Alexander

I suppose it's high time that I introduced myself to you all. Some of you, (especially those at Saladero, Hope Cottage, Port Howard, and Shallow Harbour) may have noticed a big Ulsterman "guddlin'" around and questioned my presence. Well, my name will be fairly evident by the time that you finish reading this article and I am a Higher National Diploma student from Northern Ireland. Studying Rural and Countryside Management at Greenmount College of Agriculture and Horticulture allows me to take a gap year and I have taken this opportunity to visit the Islands for 6 months.

It is thanks to Jim McAdam, and the Department of Agriculture here in the Falklands, that I am here at all, and it is thanks to the RAF, and the local weather, that I was allowed to spend the night in Ascension, but it was too hot for me there, so I was fairly glad to have to put gloves on when I stepped off the Tristar at MPA.

I arrived here on the 14th July, a Wednesday, and got stuck in straight away, because on Thursday I went out to Saladero with Doug Cartridge and Friday was spent at Hope Cottage - again with Doug. The following week was spent at Port Howard, after surviving my first flight on an Islander aircraft - (have you noticed how the engines are just about to stall 3 seconds before we hit the turf?). Port Howard gave me my first real experience of how a farm runs in the winter - when the sheep pretty much fend for themselves, and the most important thing is the maintenance and general upkeep of the farm and settlement.

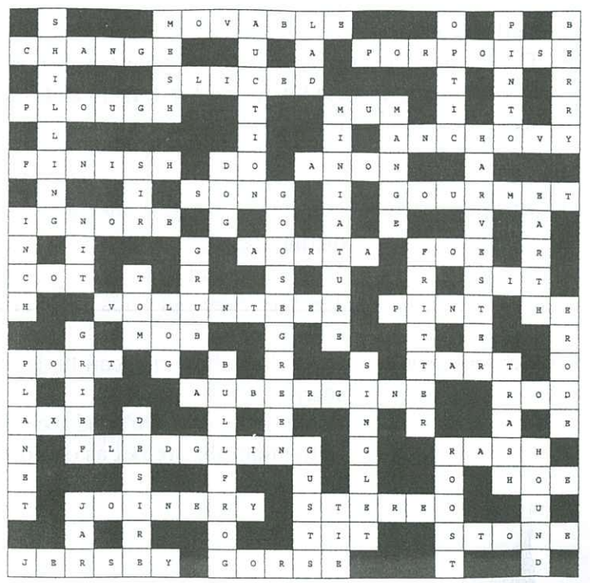
My next flight took me to Shallow Harbour, into the care of Ali and Marlane Marsh, who have gone out of their way to look after me. I've been kept busy planting macrocarpa, eye-locking hoggets, and fencing, amongst other things. I've been at Shallow Harbour for over 2 weeks now, and on the 17th August, I move on again. This time to Hill Cove and from there on to Keppel. More trees need planting, and after that, who knows?

I want to take the time now to thank a few people before I finish. My thanks go out to Jim McAdam, the Department of Agriculture, the Wool Press Gang (Mandy and Charlene), the Hobman's at Saladero, the Philips' at Hope Cottage, all at Port Howard (Rodney, Neil, Roy, and Ron), and the Marsh's at Shallow Harbour. My apologies to anyone I've neglected to mention.

My time here in the Falklands has been short to date (4 weeks at time of writing), but I've thoroughly enjoyed myself so far and already have experiences notched up, and I hope to gain a few more in the next few months before I go home. That's all for now folks!

To be continued.....

## ANSWERS TO LAST MONTH'S CROSSWORD



# CONDITION SCORING OF BEEF CATTLE

*By Jeremy Challacombe*

Condition scoring is a measuring system which evaluates the amount of fat that a cow is carrying on her body.

The condition score provides an estimate of the fat reserve irrespective of size.

Condition scoring can aid cattle management in two ways:

**Breeding cows:**

- The amount of fat that a cow is carrying (or her condition score) is directly related to reproduction. If a cow is in a poor state of nutrition when it comes to breed, the hormone system in the cow says no, and the cow does not cycle.

**Fattening animals:**

- Knowing the condition of fattening animals allows selection of those ready for sale, based on a particular level of fat cover.

## How to condition score

Condition scoring of cattle requires a hands on approach. Thick hair coats in cattle can fool visual evaluation and cows may actually look to be in better condition than they actually are.

Two areas of the animals body are felt and a score is given (from 1 to 5) depending on the fat cover in these areas.

1. **Short ribs**

- This is the area between the last long rib and the hip bone as shown in the diagram overleaf. You simply place your hand over the ends of the short ribs and feel. An appropriate score is given based on the amount of cover over the short rib.

2. **Tail head**

- This is the area directly around the tail as shown in the diagram overleaf. The amount of fat cover is assessed by using the fingers and thumb and giving an appropriate score, depending on the fat cover.

**Condition score 1** Individual short ribs are sharp to the touch and easily distinguished.
There is no tail head fat.
The hip, bones and ribs are prominent.

**Condition score 2** Individual short ribs can be identified but feel rounded rather than sharp.
Some tissue cover around the tail head.
Individual ribs are not as obvious.

**Condition score 3** Individual short ribs can be felt only with firm thumb pressure.
Areas either side of the tail head have fat cover which can easily be felt.

**Condition score 4** Individual short ribs cannot be felt.
Fat cover is evident around the tail head as slight mounds.
Fat cover is beginning to develop around the ribs and thighs.

**Condition score 5** Bone structure around short ribs is not noticeable.
Tail head is almost completely covered in fatty tissue.

Some people use half scores, especially if there is a difference between the rib site fat cover and the tail head fat cover.

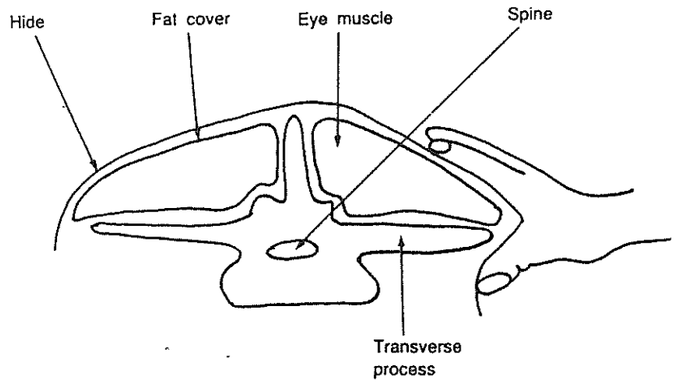
## What does it all mean?

- All cattle should be in reasonable condition (ie, condition score of 2 or better).
- Cows should be around condition score 3 when going into the winter period.
- Cows should be in condition score 3 (better than 2.5 and less than 4.5) prior to joining.
- Cows less than condition score 2 at weaning may need additional attention through winter to achieve an acceptable condition prior to calving.
- Steers ready for sale should be around condition score 4
- Any animals of condition score 5 are over fat for sale and such cows may be difficult to get in calf.

## When to condition score

- September/October. Coming out of winter and prior to calving
- January. Prior to joining
- May. At weaning and prior to winter
- With steers. Prior to sale

**Condition scoring**

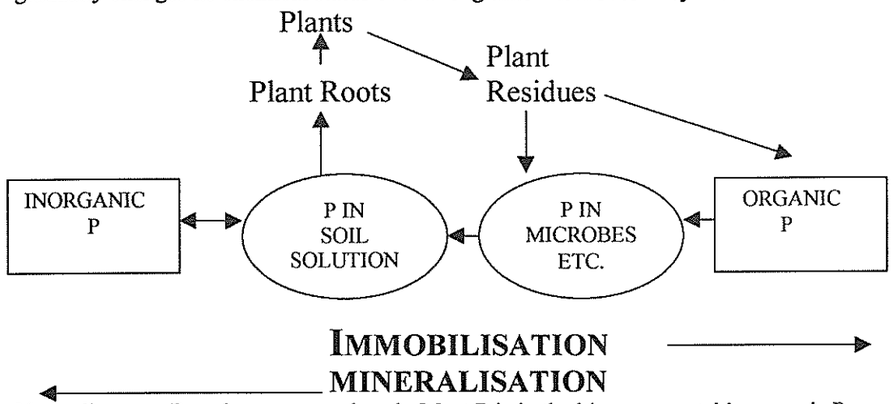


# PHOSPHATE IN FALKLAND ISLANDS SOILS AND PLANTS

*By Jim McAdam*

**P Cycle in Soils**

P (used throughout to denote Phosphate) is a vital element for plant growth. In soils, P gradually changes its chemical status over a long time – it moves in cycles.




Naturally, most P cycles are very closed. Most P is in the biomass as stable, organic P. In this format is retained in the soil.

P is recycled by microbial breakdown of litter and organic debris.

There are 2 key precesses involved in P cycling.

| 'Available' | | 'Not available' |
|---|---|---|
| **Inorganic P** | | **Organic P** |
| | **Immobilisation** → | |
| | ← **Mineralisation** | |

**Immobilisation** – The uptake of inorganic nutrients by organisms.
**Mineralisation** – The conversion of nutrients in organic matter into inorganic ions, principally by microbial decomposers.

**P availability to plants**

Plants can only use P in the soil solution (inorganic P). P is much less mobile than nitrogen or potassium. Nitrogen is available to plants as ammonium or nitrate, both of which are relatively stable and remain available for plant use. P reacts very quickly with other ions in solution to become less soluble and hence unavailable to plants until a certain pH level, (about 5.5). P is made more available to plants with increased pH (i.e. by adding lime or calcified seaweed). Against this decreasing the acidity slows down the breakdown of ground rock phosphate.

**Forms of P fertiliser**

- Deposists rich in apatite (e.g. rock P) are found in North America, Africa and Russia.
- Variable P content (~10%). Those rich in carbonate are best.
- Rock phosphate and inorganic acid (e.g. sulphoric, phosphoric) → Soluble phosphate fertiliser.
- Rock P + 60-70% $H_2SO_4$ → 'Ordinary' or 'Normal' superphospate (10%P) Soluble.
- Rock P + excess $H_2SO_4$ or phosphoric Acid (+remove gypsum) → Triple superphospate.

| MATERIAL | FORMULA | % $P_2O_5$ (P) | PROPERTIES |
|---|---|---|---|
| Rock P | Complex | 25 – 35 (11-15) | Insoluble, slow acting, ground powder |
| Super P | $Ca(H_2PO_4)_2$ + $CaSO_4$ | 18 – 10 (8 – 9) | Water soluble Granules/powder |
| Triple Super P | $Ca(H_2PO_4)_2$ | 46 (19 – 20) | Water Soluble |

**Response to Applied P**

- Much of the P applied to soils in water – soluble forms are not retained – it is '**fixed**' or '**locked up**' and unavailable for plant use (both biological and chemical processes involved).
- The facts are we have an element –
- Which is very quickly '**locked up**'.
- Very unavailable to plants.
- Cycling very slowly.
- Is essential for plant growth.

How can we 'marry' the requirements of growing plants and their needs for P?

We can add calcium to improve the chemical environment in which P works – studies back this up. The key role of calcified seaweed (& others).

**Reseed Establishment**

Legumes (e.g. Lotus) are slow growing so we need a slow release form of P to provide a 'trickle' of P to the developing root system.

**The biological ceiling**

- Too low to speed it up any more (calcium will a little bit)
- No point in applying a highly soluble form of P as it will be immobilised and fixed very rapidly and the plant root system is not there to exploit it.
- It will be either leached out or go into the organic pool (unknown).
- Rock phosphate should be given a gradual tickle of P to satisfy the growing plants.

**Established Reseed**

- Slow release from of P is still best – this could be supplemented by a small amount of soluble P at peak season growth.
- Biological ceiling of growth is low and plants can only take up a limited amount of P, soluble P is rapidly mobilised.

**Finally**

***Rock phosphate application is permitted under Soil Association and UKROFS Organic Standards. Acid-treated, soluble P is not.***

# FUTURE LOOKS FINE FOR WOOL GROWERS

*Source: Farming Ahead No. 104 August 2000*

Wool growers may need to grow finer wool in order to compete with synthetic fibres that have been developed in response to consumer demand.

Synthetic fibres are increasingly finer than wool and have new attributes that mimic the qualities of wool at an ever increasing rate (see Table 1).

Consumers are increasingly demanding lightweight fabrics which are softer to touch, free from skin irritation, maintain an attractive appearance and easy to care for. For processors, the primary way of producing finer yarns is by using finer fibres.

Even for heavier yarns, finer fibres give a stronger, more even yarn and softer fabrics. These are ultimately the reasons why premiums for fineness are increasing.

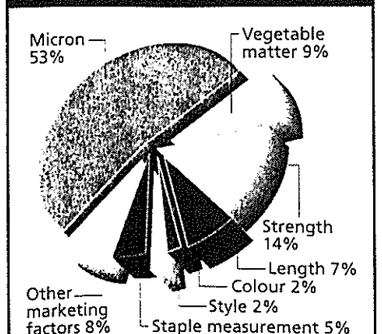
**Money is in the micron**

Fibre diameter is the major price determinant for wool. (See figure 1).

Market trends during the past 20 years show fleeces of less than 19 microns have consistently topped the market in terms of price and there is nothing to suggest this will change.

At no time since the late 1970s has there ever been a penalty for producing finer wool. And the price premiums have tended to increase as the average diameter gets finer.

**FIGURE 1 Value-determining features**




Note: Other marketing factors include region, sale by description and lot size.

Source: The Woolmark Company.

The value of lowering from 22$\mu m$ to 21$\mu m$ during 1985 was 10 per cent of the price then which was 564 cents. Since the mid 1980s the premiums have fluctuated but average more than 10% for medium-type wools and higher for fine wools.

The premiums for fine wool already have had a marked impact on the national clip.

The average fibre diameter of sale lots sold at auction during the past 20 years has dropped from about 23$\mu m$ to about 21.5$\mu m$.

During 1998-1999 more than 15% of wool sold at auction was 19.5$\mu m$ or finer.

The reduction in mean fibre diameter reflects a wider use of fine wool bloodlines, seasonal factors, increased measurement of individual animals and fleeces and decline in sheep numbers.

This has seen a changing age structure in the flock resulting in increased numbers of younger sheep.

**Back on the farm**

While there is solid evidence for continued premiums for finer fibres, it is a challenge to translate these premiums into increased profitability for wool growers.

Although mean fibre diameter can account for 50-65% of the auction price of wool, wool growers need to consider factors including:

- Fleece value in terms of dollars per kilogram.
- Fleece value per animal – this takes account of the amount of clean wool cut per head.
- Finally, wool growers need to take account of the returns per hectare, as this is the measure that has the primary influence on enterprise profitability.

**Fleece weight and fibre diameter**

Although there is a antagonistic relationship between mean fibre diameter and clean fleece weight or cut per head, at any one micron there is still variation in fleece weight.

Importantly, there are considerable numbers of animals in any flock that are above average for fleece weight and below average for fibre diameter.

When breeders look at combining the fleece value together with liveweight (and hence feed intake) and express these aspects on a gross margin per hectare basis, there is a strong relationship with mean fibre diameter.

In other words, such is the reward for finer wools that this overrides any loss in return from slightly lower average fleece weights.

When a breeder looks at selection within a flock, there is some good news.

If the breeder adopts a strategy of reducing diameter as quickly as possible, and focuses attention on this trait, a sheep will be bred with lower diameter. This will occur relatively quickly because it is a highly heritable trait that shows considerable variation within a flock.

But the really good news is that most components of wool style will also improve even without specific selection pressure being focused on these traits. In addition to breeding for lower micron there is also a wide range of management and nutritional methods that can be used to reduce mean fibre diameter within the flock. For example, Western Australian trials show that strip grazing during late winter and spring cannot only help reduce the mean fibre diameter of a flock but it can also have an effect of raising staple strength through the reduction in the tex of the staple. But the best way to reduce the mean fibre diameter of the flock is through the use of appropriate genetics.

Demonstration flocks show selection based on the use of indexes can produce predictable genetic change.

Breeders who focus on fleece weight and mean fibre diameter can achieve a decrease in fibre diameter of 1.5$\mu m$ and increase fleece weight by 0.3kg over 10 years. Breeders who focus on mean fibre diameter by up to 3$\mu m$ keeping fleece weights the same. Ram buyers will then reap the rewards of such progress by producing more valuable wool clips.

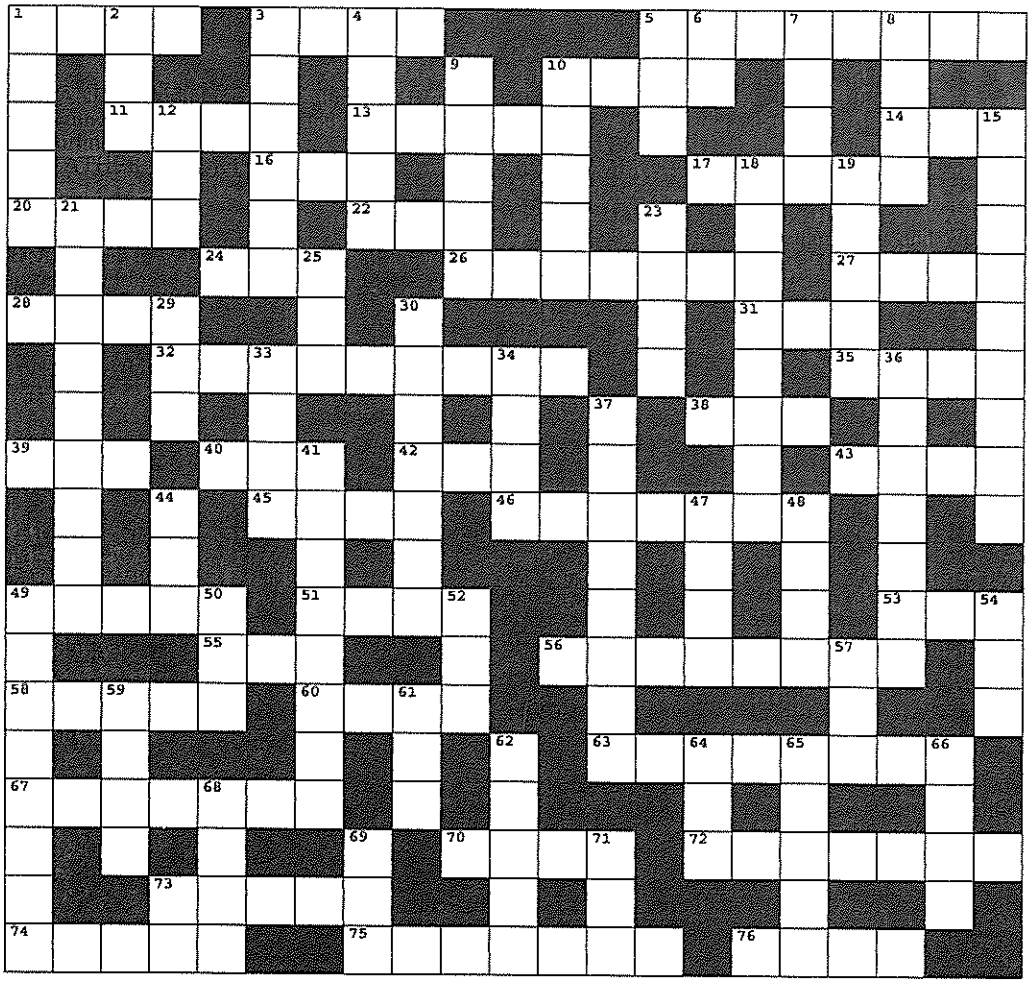
**TABLE 1 Characteristics of new synthetic fibres**

| Fibre | Producer | Trademark | Special properties |
|---|---|---|---|
| Polyester | Du Pont<br><br>Hoechst<br>Wellman | Supriva, Softec<br>Thermax<br>Trevira<br>Fortrel,<br>Fortrel Ecospun | Crimps, soft hand, resistant to stretching and shrinkage, quick drying, washable or dry-cleanable. |
| Nylon | Allied<br>Signal | Captiva<br>Capima, Patina | Exceptional strength, high abrasion-resistant, easy care |
| Acrylic | Sterling<br>Fibres<br>Bayer<br>Solutia | Cresloft<br>Dralon<br>Acrilan<br>Bounce-back | Fine, soft, warm for winter wearing, easy care, flexible aesthetics for wool- or cotton-like, resilient, dyes to bright colours with excellent fastness. |

Source: The Woolmark Company

If anyone would like to find out more information, contact Ian Purvis, CSIRO Livestock Industries, by email ian.purvis@anprod.csiro.au

September 2000



ACROSS

1. Modelling substance
3. Vex
5. Travelling show or celebration
10. Extremely small particle
11. Break up the dried peat with axe
13. External parasites
14. Male sheep
16. Black road surfacing ingredient
17. Black and white bear.
20. Sodium Chloride
22. Magical, fairy-like creature
24. Painting and drawing for instance
26. Birds from the largest family
27. School period
28. Christopher Robin's friend
31. What you do when you're hungry
32. Three under par on a golf course.
35. Streched circle
38. Federal Bureau of Investigation.
39. Ova
40. Peat cutting place
42. Self esteem
43. Direct by going ahead
45. Go off the straight
46. Hit by a bullit
49. Flat felt hat
51. Baby's biscuit
53. Large rodent
55. Hotel or alehouse maybe
56. A close thing
58. One sixteenth of a pound
60. Deliver an e-mail
63. A man that gathers sheep.
67. A type of duck
70. A drink to have with rum or lemon
72. Made to look small
73. Large stringed instrument
74. Soup utensil
75. Saturday and Sunday
76. Scratch a picture on the surface

DOWN

1. Deep fried pieces of potato
2. Portion of a circle
3. Predatory animal or bird
4. Metric liquid measurement
5. Bovine animal
6. In the morning
7. Middle of the day
8. Wartime sweetheart, now Dame
9. Roughen by mark or wear
10. White or pale
12. Small shed
15. A jam made from citrus fruits
18. To fit together
19. Written instead of re-writing the whole thing
21. Say sorry
23. Watery part of milk
25. Boston beverage
29. Dried grass
30. Pals
33. Start up a computer
34. A small flat bottomed dinghy
36. TV watchers
37. Game played with ball and bat.
41. An Island jumper
44. Honey maker
47. Expensive
48. Leif's shop perhaps
49. Flowers
50. Neck clothing
52. Baby goat
54. Metric number
57. Observe
59. Sniffer
61. Woman of religious order
62. Timepiece
64. Finish
65. Pumps blood around the body.
66. Female rabbits
68. Kiln
69. Pull behind
71. Sun coloured skin
73. Company

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**All the regular features and more!**


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**STRATEGIC PLANNING - SIZE DOESN'T MATTER!**
*By Richard Baker*

**CLASSICAL SWINE FEVER & OTHER DISEASE CONCERNS**
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**QUALITY FALKLAND WOOL**
*By Doug Cartridge*

**.... ONLY UNTIL THE 7th OCTOBER**
*By Zoe Luxton*

**MORE FROM BRIAN ALEXANDER**

**GREETINGS FROM AUSTRALIA & INFORMATION REGARDING AI PROGRAMME**
*By Jeremy Challacombe*

**ORGANIC FARMING RECENT IRISH PERSPECTIVES**
*By Aidan Kerr*

# EDITORIAL PAGE

**Editor:**
*Charlene Rowland*

We have another student at the DoA just arrived called Andrew Bell. Andrew is funded by Queens University of Belfast and is here for approximately three months doing trials on Rock Phosphate at Brenton Loch. A new receptionist has also started at FIDC and she is Cara Newell, we would like to welcome her in her new job.

Staff from the DoA, Gillian Phillips and Diana Berntsen are back off their holidays and Aidan Kerr is also back from writing up his thesis at Queens University of Belfast. Staff from FIDC, Tim Cotter, John Fowler and Jo Morrison are all back from their travels (I'm sure in the next issue of The Wool Press we will have an account of where they have been etc). We have also had a resignation this month, Marie Loveridge is leaving around the 20th October. She will sadly be missed from the DoA. We wish her the very best for the future in what ever she decides to do.

A camp '**Roadshow**' is being held from 9th to 13th October with Dr Michael Blanch (Chief Executive), Bob Reid (Director of Agriculture), Richard Baker (General Manager FIDC) and Mandy McLeod (DoA). Visiting at Hope Cottage, Fox Bay, Port Howard, Hill Cove and Goose Green. It is envisaged that as many campers as possible will attend.

A "**Camp Matters**" radio talk show has started on Friday lunch times at approximately 12.30. This programme is to tell you the listener what we are up to and doing for the camp community . If you would like to ask question answered or to hear about something relating to any camp issues then please call me on 27211 or e.mail crowland@fidc.co.fk as we are keen to keep it running.

**If you are not aware of it, Mandy and I have shifted office to FIDC, and we are still doing the same jobs and can be contacted on 27211 or email us on either: mmcleod@fidc.co.fk or crowland@fidc.co.fk**

## OLD CON
*by John Hobman*

*You were never a fancy heading dog*
*Of a whistle you took no heed*
*Just an all round forcing dog*
*A handy kind of breed.*

*You'd work all day in the drafting pens*
*Jumping fences and gates in your stride*
*And when we drove away from the pens*
*You'd run out really wide*

*You'd catch a nice fat Christmas lamb*
*Taking care not to bruise the hide*
*And shift those sulky imported rams*
*When we had the brutes to drive.*

*But now old chap you are retired*
*Living like a gent*
*Now and then a litter you'd sire*
*And dream of years well spent*

## Inside this issue:

*Greetings from Australia and information regarding the forthcoming AI programme. By Jeremy Challacombe*

*Organic Farming—Recent Irish Perspectives. By Aidan Kerr*

*.....more from Brian Alexander*

*....only until the 7th October By Zoe Luxton*

*Colostrum needs of new born lambs*

*Strategic Planning— Size Doesn't Matter! By Richard Baker*

*Classical Swine Fever & other disease concerns. By Cameron Bell*

*Rearing Orphan Lambs part I*

*Quality Falkland Wool. By Doug Cartridge*

*...and much more!*



## STRATEGIC PLANNING – SIZE DOESN'T MATTER!
***By Richard Baker***

Strategic Planning sounds as though it should only apply to multinational conglomerates as they plan global domination of billion pound markets. In fact, basic strategic planning is an essential part of any business, whatever its size.

During the last year, I've been told by various owner/managers of small businesses and farms things like:

*"....we sold hundreds of these in 1996...."*

*"....it was better last year – and then nobody wanted to eat them anymore...."*

*"....it is just so hard to predict what they'll buy...."*

In a lot of cases, businesses in the islands have not achieved their full potential because the owners are so busy working that they don't have time to look up and plan the next move. The world is changing increasingly rapidly and the companies that are able to adapt best to the changes in their environment will win.

So how do you '**do**' strategic planning? You do not need a team of consultants, or several months of preparation; strategic planning can take a couple of hours a month around the kitchen table asking yourself a number of fundamental questions about your operation:

1. **What is our business trying to achieve?**
   - Ask yourself why you are in business, what you want from the work you do and where you want to be in five, ten, twenty years time.

2. **What is the thrust for future business development?**
   - Consider the Strengths and Weaknesses of your operation and the Opportunities and Threats facing it in the outside world.
   - What is the competition doing? What is happening in other sectors that may affect your business?
   - Try to create unique products/services and think about what will make customers keep coming back for more!

3. **What range of products and markets will be covered?**
   - Focus on the activities, products and services that help you to best achieve your business goals.

4. **What capabilities/resources are required?**
   - Carry out a 'Gap analysis' by looking at where your operation needs to be able to deliver the strategy.

In thinking of ways that your business might develop, there are some fairly standard strategic directions that apply to any business:

**'Do Nothing'**
This may be appropriate – "If it ain't broke...don't fix it!"

**Market Penetration**
Can you get a larger share of the existing market?

**Product Development**
Create new products (or package/bundle-up existing ones in different ways).

**Market Development**
Create new markets – think about other outlets – MPA, tourist lodges etc.

**Diversification**
Consider ways that you might diversify away from your core products/services.

**Withdrawal**
You might look at withdrawing from some products/services that you offer if they are not as profitable as they might be and, by reducing the use of resource, time and effort on these lines, you can concentrate on the things that help you achieve your business goals.

In summary, strategic planning is not complicated or time-consuming. It is essential for any business, large or small, if it is to continue to be successful. If you'd like to know more about strategic planning for your business, please contact FIDC/DoA to discuss how we can help.

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## SHEARING/GRINDING AND WOOL-HANDLING COURSES.

On October the 21st a shearing course will be held at Hope Cottage. All shearers/farmers are welcome to attend to pass on, and benefit from, advice that will sharpen up the skills of all working in Falkland Island sheds this season. On the same day tuition will be given on correct gear sharpening including some new ideas that will benefit all shearers wanting to improve the efficiency and quality of their workmanship.

A woolhandling course will be held on Saturday the 28th October, also at Hope Cottage. The course is intended as a refresher for all wool handlers working in sheds this season. Tuition will also be provided to inexperienced woolhandlers who might be embarking on their first year in the sheds. This is a great opportunity to get handy hints from the best woolhandlers in the Islands and to learn why it is so important that the job is carried to a high level all season. So don't sit back and think you know it all, come along and show everyone else.

**Everyone wishing to attend either, or both, days please contact Paul and Shula Phillips or Doug Cartridge**

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## CLASSICAL SWINE FEVER & OTHER DISEASE CONCERNS

***By Cameron Bell***

On the 8th August 2000, the UK Ministry of Agriculture Fisheries and Food (MAFF) confirmed an outbreak of Classical Swine Fever (CSF) on a single holding in Sussex. By the end of August, CSF had been confirmed on a total of 5 premises, whilst 24 premises were still under investigation. Upon initial confirmation, restriction orders were immediately placed on the movement of pigs in and out of the infected areas and surveillance zones established.

CSF is a highly contagious viral disease that affects pigs only. It spreads quickly by nasal or oral routes. Feeding infected pork products to pigs is another way the disease is transmitted (the virus survives extremely well in frozen meat). Humans can also spread the causative virus by syringes, instruments, etc. Processed pig meat products from a continental European country infected with the virus were believed to be the most likely cause of the last outbreak in the UK in 1986. A similar situation has probably occurred this time.

With the MAFF controls in place, it is unlikely that infected products would enter the Falkland Islands. If such products did enter and were inadvertently fed to pigs, our excellent animal health status would be degraded and our small pig industry could be destroyed overnight with an outbreak of CSF. The five main pig producers / rearers in the Falkland Islands have already been contacted directly and warned about the consequences of feeding pigs any food scraps that may contain imported meats in whatever form. However, all potential pig owners should also be aware of this situation.

This disease outbreak illustrates how easily disease agents can enter countries previously free of the disease. The take home message is that ***illegally imported meat and other animal products can act as an excellent means of disease transmission.*** Other diseases such as foot and mouth disease can be similarly transmitted. Further, never consider the illegal importation of any animal products or else you could be placing Falkland Islands agriculture at risk.

Copies of the exotic disease video shown at Farmers Week are available for loan. Please contact Maggie Battersby at the Veterinary Office to arrange for a copy.

# THE SHAPE OF THE SHEEP INDUSTRY DOWN UNDER

*This is an article taken from The Sheep Farmer of July/August 2000 and written by Chris Lloyd.*

With Australia playing a major role in the Cairns Group, World Trade Organisation agreements could have a major influence on what happens to the Australian sheep industry in future years.

Chris Lloyd's strongest impression was the vast size of Australia. Although he saw some of Western Australia and chunks of NSW, Victoria and South Australia, he only experienced a small segment of this huge island, twenty times the size of the UK. One farm he visited ran 60,000 sheep in a fine-wool operation and just the owner, a manager and a student as full-time labour.

Its scale is the answer to what potential lies in store for the Australian sheep industry. It is already the largest producer of sheep meat in the world producing 615,000t (dead weight) in 1999, 9 per cent of the world's production. However, of this 306,000t was mutton with 309,000t of lamb coming from its 58 million ewes. By comparison the UK produced 385,000t from 20 million ewes in 1998. This simple reason is that until recently the sole focus of the Australian sheep industry was wool production.

We have all heard how Australia developed into the largest wool producer in the world. Distance from larger populations and therefore markets, combined with a predominantly dry climate made wool production the simple choice and a successful market for the pioneering farmers in the 1800s. The market grew and developed to a peak in 1990 when Australia had a sheep flock of some 170 million.

At this time world economics created a collapse in wool prices, and for the next ten years wool producers saw their incomes hit rock bottom. Some have left the industry all together, many have reduced numbers, others have diversified into cereals or forestry and whilst some have converted to lamb production, it seemed to Chris that many are just waiting for wool prices to pick up again.

It was said to him that in the days of buoyant wool prices, making money from sheep was relatively easy, with little management/labour input to run huge flocks. This perhaps explains the reluctance of some to admit that the days are gone when wool was king.

Those with any financial reserves left are tinkering with different breeds, such as the dual purpose (wool:meat) Dohne Merino or South African Mutton Merino to improve meat returns whilst keeping one foot in the wool shed door.

Others, especially in the drier extensive areas of Western, Central and Northern Australia, are looking at the Droper which is suited to lamb production in those extreme conditions. It will require a massive change in management priorities and approach if this is to become a large scale solution, but the potential is there.

**Best Conditions**

The State of Victoria has the best conditions for lamb production in Australia and is responsible for over 40 per cent of the lamb output from its 10 million ewes. New South Wales follows behind producing 25 per cent of production from its 20 million ewes.

Breed improvements of the terminal sire breeds, the main ones being the Polled Dorset and White Suffolk, have given lamb producers in these states the tools to improve their efficiencies. However, whilst the environment may be a limiting factor to lamb production in many areas, any major change of emphasis from wool will be driven by increasing the market demand for Australian lamb.

Seventy per cent of production is consumed domestically. Despite a fall in consumption over the last 10 years, the average Australian shill eats 16 – 17kg of sheepmeat per year (6 –7 kg / person in the UK). However, with this at best remaining statistic, it is the export market which drives requirements and in so doing any potential to increase production.

Unlike New Zealand, Australia has a very limited export quota to the lucrative European Union market (225,000t versus 18,650t). This has necessitated a reliance on export markets such as the Middle East, Papua New Guinea, USA and a host of smaller countries.

Whilst Australia is the largest exporter of live sheep in the world with 4.99 million animals exported in 1999, mainly to the Middle East, it also exports 250,000t of sheep meat (two thirds of which is mutton).

The proportion of lamb sales is increasing. In particular there have been successes in the development of export to the USA and South Africa. With sales of Australian lamb to the USA tripling through the 1990s the Clinton Administration felt it necessary to impose tariffs on Australian imports. Despite this the trade looks likely to continue and to have a major influence on the lamb market.

The US market demands large carcasses of 26kg plus. The effect of this had been to drive production for bigger carcases. This in turn has encouraged average weights to rise from 16.5kg in 1980 to over 20kg today.

The downside had been the amount of fat the lambs carry at these weights. By our standards we are talking fat class 4 or 5 and over. Nothing a bit of trimming can't handle. Proof surely that size matters! When one abattoir penalised producers for over fat lambs, their preference being for a lamb 24kg – 30kg dwt fat class 3 (15mm fat), they simply drove down the size of lambs supplied, so that they had to stop the penalty. They now accept up to 20 per cent of lambs per batch in fat class 5 before penalising!

The impact of the export initiatives has seen prices for lambs rise over the last 10 years stimulating some switch to lamb production by the 'dyed in the wool' producers. However, the shining light of opportunity continues to be the EU market where prices are highest. It remains a great frustration to Australian's that negotiations on access to the 'European Community's Common Market' in the 1970's left them with such a small quota. Not a problem then, when wool sales were blooming, but a serious slap in the face as they now look to utilise their sheep flock in other ways.

**WTO Agreements**

For this reason they, probably more than anybody, stand to gain from any market success achieved in opening market access in future WTO agreements. With 58 million ewes currently producing over 300,000t of lamb, there is a potential to increase this volume and with current prices in the region of 82p / kg dwt they are ideally placed to steal European customers thus expanding very quickly their market for lambs.

This market stimulation would surely encourage producers to transfer to lamb production, thus waking the sleeping giant of a sheep industry. Soon it could be producing large quantities of relatively cheap lamb marketed in competition with New Zealand and ourselves for the consistent European market.

Chris has one last thought; 75 per cent of ewes are straight Merino so there is huge potential for change and, with an extra 16 per cent of ewes joined to a meat ram in 1999, there are signs that the giant is already beginning to awake. After years of wool production it could prove to be a 'wolf in fine wool clothing'.

## QUALITY FALKLAND WOOL

*By Doug Cartridge*

Most of you will have noted that EXCO passed the funding of a one off financial incentive to be paid to farms preparing their wool under the Quality Falkland Wool accreditation scheme. The payment is for this coming season only and it's intention is to greatly increase the number of farms accredited under the scheme. Both Falkland Woolgrowers and Falkland Islands Wool Marketing support the QFW scheme and realise that the financial rewards acheivable by improving the quality of Falkland wool could be substantial. The major issue is that the buyers of Falkland wool must first be convinced that Falkland wool can be consistently free of dark coloured fibres and other contaminants. Once this has been achieved then premiums will follow, but to achieve this a high proportion of Falkland wool needs to be accredited under the QFW scheme.

You may or may not be aware that there are two levels of accreditation under the scheme, Basic and Advanced. The Advanced level includes all of the standards required for the basic level but has an additional requirement that all sheep are dagged/crutched/rung within 3 months of shearing. The very basic principle used for the differentiation is that if all sheep are free of stain prior to shearing then the risk of contamination of the fleece wool should be almost zero. All other wool quality assurance schemes employed around the world demand crutching and ringing (removing the stain from around the pizzle of male sheep) within 3 months of shearing. In order to meet the advanced standards all female sheep shorn in that mob must have had all stain removed from around the tail and all male animals must have been rung. It is possible to prepare part of your total clip under the basic level and part under the advanced level.

The most logical time, due to the time taken to gather large camps, to dag/ring sheep will be just prior to shearing (the days immediately preceeding), though can be carried out up to 3 months prior. If it is carried out earlier, more wool will have to be removed in order to reduce the risk of staining of wool post crutching. The approximate cost of employing contractors to crutch or ring sheep should be around £10.50 (per 100) for crutching and £5.00 (per 100) for ringing. Alternatively wethers could be full bellied, at a cost of £10 (per 100), and the subsequent shearing rate could be reduced by £5.00 (per 100). The above rates have been discussed with Paul Phillips who felt the suggestions were realistic. A full list of suggested rates are included below.

The level and method of payment of the financial incentive for this year is as follows:

- **2 pence per kilogram clean for fleece wool prepared under the basic level of the QFW scheme.**
- **7 pence per kilogram clean for fleece wool prepared under the advanced level of the QFW scheme.**
- **Payments will be made upon receipt of wool sale invoices detailing quantity of clean wool sold. These invoices to be sent to the Wool Advisor, Department of Agriculture.**
- **Either Doug Cartridge or Lucy Ellis, Department of Agriculture, must be notified, prior to shearing, if you intend on preparing wool to the advanced level.**

If you are not already an accredited supplier of QFW and wish to become accredited then your shed **must** be inspected prior to the commencement of the seasons shearing. A further visit will then be made while you are shearing to make sure the preparation standards are being met. In addition random checks will be carried out by Department of Agriculture staff, however the onus is on the owner/manager to ensure that the standards agreed to are consistently met.

Time is running out in the lead up to the shearing season so please contact either Lucy Ellis or Doug Cartridge as soon as possible to organise a shed inspection.

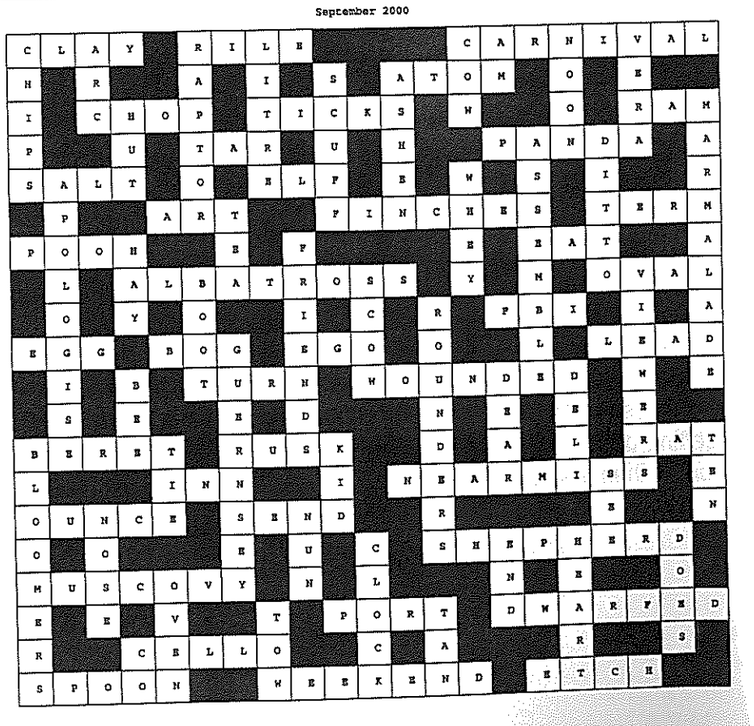
**Suggested shearing/crutching rates:**

| **All Rates 'not found' but supplying own gear** | **Rate (£)/100** |
|---|---|
| *Current shearing rate* | 46 |
| *Full crutch* | 13.5 |
| *All other crutch/dag* | 10.5 |
| *Wigging or ringing* | 5 |
| *Wigging or ringing in addition to crutch* | 1.5 |
| *Wigging and ringing in addition to crutch* | 2.5 |
| *Wigging and ringing* | 8.5 |
| *1/2 belly in addition to crutch* | 1.5 |
| *Full Belly* | 10 |
| *Full Belly in addition to crutch* | 3 |
| *Shearing rate excluding belly* | 41 |

## HAY WANTED

*Anyone with spare hay for sale,*
contact Nick Pitaluga
☎31193 (evening) or 31194 (24hr fax).

## ANSWER'S TO LAST MONTHS CROSSWORD



## .....only until the 7th of October
***By Zoe Luxton***

It can get a bit disheartening when everyone you meet says "Zo, nice to see you back, how long are you here for?". I am assuming it is a nice conversational piece regarding their interest in my continuing studies and not a burning desire to have me out of the Islands for ever but then again.....

Anyway I have been back since the start of September and have been lurking around the Department of Agriculture in my usual fashion (ie: noisily some might say!).

So, yes, I am off again on 7th October for 2 final months of hard graft (!) at college. One month working in the farm animal section, which is actually a bit of a skive as farm animals in UK these days are unfortunately pretty worthless so it is not a very busy department. My final month is back in the small animal hospital, really called the QMH (Queen Mother Hospital) but known affectionately by us as the Chef as on the outside it bears an uncanny resemblance to a Little Chef roadside rest stop! On the inside it is fairly different I suppose, I guess you could equate bleary-eyed travellers with bleary-eyed students but I've never been in any Little Chefs that smell quite blatantly of cat wee.

Since my last instalment I have done stints in the Equine surgery and medicine departments (very enjoyable despite having to go into college at midnight and 4am when you are on duty!), the small animal medicine and surgery departments (not quite so enjoyable due to the fact you quite often don't get home until midnight or 4am on normal days! "Tired? You can't be tired, you had an hours sleep last Thursday – you students are SO soft!!"), the pathology department (interesting but a bit creepy when you walk into the freezer room and get confronted by a frozen horse hanging by one leg with its head in a bag, Why? So we don't recognise it and get traumatised? Or was it suicide?).

The upside of the long hours, dogsbody jobs and no wages is that we do actually learn stuff! The feeling is damn near euphoric when I say or do something and Steve or Cam says, "yes – that's right". Obviously there are still lots of times when I say something and they are visibly restraining themselves from beating me with the stupid stick, but heck, I've got 10 months yet!!! Ten very short, very quick months no doubt. The big F (finals!) is looming in February (yes, I'm terrified, No, I don't want to think about it!) and then we have 4 months semi-specialising in a subject and doing a project. I am still dithering between pharmacology, pathology and anaesthesia as I can't really decide if large or small animals are really my thing so I figured something universal would be best.

Huge thanks must go to Steve and Cam for having the patience to supervise me doing jobs that generally take 30 minutes with minimal mess while I'm taking an hour with blood up to my elbows, and to Maggie and Sarah for being so supportive "Maggie I'm a bit terrified about doing this", "shut up and get on with it, I know you can do it!"

So that's me for now – hopefully next year Charlene might have to report that I am alive and well and getting good experience somewhere with a view to coming home and being noisy in the DoA for a lot longer than 6 weeks at a time!

## .....more from Brian Alexander

With the prospect of relocation for me on the cards, it is only polite of me that I give a fair/fear warning to the unfortunate residents of Goose Green that they are my next target. The plan of action is that on or around the 13th October (a Friday – unlucky for some), I shall be leaving Shallow Harbour and moving eastwards to the green pastures of Goose – well, Green.

My duties there are on a need to know basis, and at the present time, I don't need to know as I haven't been told. Pasture improvement I think. My time at Shallow Harbour and indeed on the West has been hugely enjoyable, and while my personal interest lies mainly with trees, I have been happy enough working wherever work needed to be done. Bar 12 days at the end of August, I will have been at Shallow Harbour for around 9.5 weeks.

Those 12 days were spent mainly on Keppel Island in the north. Thanks should go at this stage to the Hirtle family of Hill Cove/Golding, without whom we would have had a long cold swim. The owner of Keppel, (while being neither an islander nor an inhabitant of the islands), is happy for experimental tree work to be carried out on his property. The expedition was organised by Dr. Jim McAdam, Plant Science Division of the Department of Agriculture and Rural Development in Northern Ireland. 5 of us, Jim his daughter Emma-Jane, Critter Lee, David Crowie and myself planted around 2300 trees in various plots over the island and around the settlement.

Incidentally, I'm led to believe that Keppel Island was the very first to be settled in the Falkland Islands, and was done so by missionaries, but don't ask me when.

We spent a week on Keppel, with the luxury of the latest in Rover 110 technology – air conditioning that involved someone (generally me) standing on the back, open to the elements, and the driver (generally not me for some reason) with no door to his right. Using Port Howard as a base, and with 2 new recruits in the forms of Bill Pole-Evans and Nicola 'Hattie' Lee, we also collected some 4000 tussac plants from River Island Knob and planted them on Penguin Point in 4 blocks of 10 plots, with each plot numbering 100 plants.

My time in the West has also shown me the phenomenon that survives as the 'two-nighter'. A social gathering like none I have ever experienced, I attended the fund-raiser at Fox Bay West in August, and was present at the Port Howard social in body at least, if not in mind ( well not by the end of the night anyway! ). This directs my staggering mind on to a very good point, which is this, - the price of alcoholic beverages in the Falkland Islands you would not believe, - well you probably would, by being here, but I found it difficult to comprehend at first. How is it conceivably possible for these establishments to make a profit, or do they? I just don't know. Cheap? Very.

Well, I suppose that brings me to the end of my dithering and raving once again. My 'thanks' should go to the Wool Press-Gang, for 'asking' (telling) me to share my ramblings with you once more. All the best,

***PS – Thanks also to Old Silverback and Grizzly*** **– they know who they are.**

## GREETINGS FROM AUSTRALIA AND INFORMATION REGARDING THE FORTHCOMING AI PROGRAMME

*By Jeremy Challacombe*

Greetings from sunny, warm, but very dry Australia. It is good to take a bit of a break and enjoy holidays with a bit of the Olympics thrown in.

It has also been good to catch up with the Australian cattle industry. The weather is very dry on the East Coast, and pastures are suffering. However, cattle prices are at an all time high after a number of years of depressed prices.

During my visit, I have been finalising the forthcoming AI programme which we hope to carry out during January/February 2001. Hopefully, this programme will provide the Falkland Islands industry with a range of improved genetic material.

In the past, we have had relatively poor results and hopefully will address some of these with this AI programme.

Success rates using AI vary greatly. There are a number of reasons for this such as:

***Cows already pregnant***
***Operator experience***
***Quietness of animals***
***Pre-insemination handling***
***Condition and nutritional status of the animal***

Facilities throughout the country are continually improving. A number of people now have handling facilities. Once animals get used to being handled through yards, they quieten down and do not get stressed every time they see humans.

We have ordered a set of portable yards for the west and have the use of a portable set on the east (thanks to Falkland Landholdings).

We will be using an experienced AI technician who will be in the Falklands during January/ February next year. Hopefully, he will also run a "*do it yourself*" AI course for interested farmers while he is here.

Whilst the best results come from inseminating animals on natural heat, this is generally impractical with beef cattle. It is likely that animals will be synchronised using CIDR implants and inseminated on observed oestrous.

This will mean that there will need to be a lot of co-ordination and quite an amount of work prior to actual insemination. We will be contacting all participants soon, and will organise visits to run cattle through the yards, select suitable animals and carry out the synchronisation programme. Animals will be inseminated some ten days after synchronisation.

In order to maximise the success rate, there are a number of things that you, the farmer should do -

- Ensure that bulls are not running with cows. This may seem obvious. If there are any doubts about a cow's pregnancy status, let us know and they can be pregnancy tested prior to the programme.
- One of the most important factors in ensuring a good conception rate is the condition of the cow.
- Cows in poor condition are unlikely to conceive.
- Selection of cows in acceptable condition is important.
- Animals should be on what is termed a "***rising plane of nutrition***" ideally, animals should be put on the best pasture at the start of December and kept on good feed up to and for about six weeks after the AI programme.
- For those that can, shut up you're best grazing area for cattle until the start of December and then put the AI cows in.
- Cows are unlikely to get back into calf less than six weeks after calving.
- Do not select cows that will calve after the last week of November.

If there are any queries with this programme, or if there are farmers who may be interested in participating, but have not yet contacted me, please feel free to call either the Veterinary Service or myself.

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## RECIPE

***From Viv Hobman at Saladero***

***Quick and Easy Lamb Parcels.***

4 large lean lamb leg steaks; 1 onion, sliced; 2 tablespoons chopped parsley.

***Marinade***

3 tablespoons tomato sauce; 2 tablespoons soy sauce; 1 tablespoon brown sugar;
1 teaspoon cider vinegar.

Trim all visible fat from meat. To make marinade, combine sauces, sugar and vinegar, marinate meat for 15-20 minutes.

Place each steak and a little sauce on a sheet of foil large enough to enclose it completely. Sprinkle 2 teaspoons of parsley and a few onions rings over each steak. Wrap steaks tightly in foil.

Cook at 180C or gas 4 for about 1-11/2 hours.

This recipe can also be cooked on a barbecue. Enjoy!

# TOXOPLASMOSIS

In 1984 toxoplasmosis hit the headlines because a British athlete came down with this disease and the good name of the cat was called into question as being the cause! While most of what has been said about toxoplasmosis has been informative and accurate, a lot has been alarmist and inaccurate. Here are some commonly-asked questions and some straightforward answers.

**What is toxoplasmosis?**
Toxoplasmosis is an infection which is caused by a tiny type of disease agent called a protozoan, too small to be seen without a microscope. It can affect not only humans but all sorts of animals and birds as well, including farm animals and cats.

**How do people catch it?**
Although it is an infection, toxoplasmosis doesn't spread from person to person like a cold or 'flu. The germ has to enter the digestive tract through your mouth, for example, on fingers or food in order to infect you. The agent can be present in:

- ***Raw or undercooked meat (any type).***
- ***Cat faeces and the soil contaminated by cat faeces.***
- ***Unpasteurised goat's milk and dairy.***
- ***Products made from goat's milk.***
- ***Vegetables, salad or fruit where the soil has not been properly washed off.***

**Effects of Toxoplasmosis**
Most people who catch it do not have any ill effects at all, although they can suffer flu-like symptoms or swollen glands which wear off in a week or two. About half the population in the UK have had toxoplasmosis without even knowing!

But there are two groups of people for whom toxoplasmosis may be serious:

- People whose body defences are weak, for example, some cancer patients on strong anti-cancer drugs and people with AIDS .
- Pregnant women: the mother is not usually ill but if she becomes infected, there is a four in ten chance of infecting the unborn baby via her bloodstream. If that does happen, most infected babies will be born perfectly normal, but about one in ten may have damage to the brain or eyes, or both. This is known as 'congental toxoplasmosis'.

**How do cats catch it?**
Although the toxoplasma agent can affect all sorts of animals, cats are the only animal in which the agent can change into a special form which allows it to reproduce.

The usual way for a cat to pick up toxoplasmosis is when, as a kitten, it goes on its first hunting venture and eats a bird or rodent which has the agent in its tissues. The agent reproduces in the cat's intestine and forms millions of microscopic egg cysts which are excreted in the cat's faeces for about two weeks.

If the cat uses the garden as well as, or instead of, a litter tray, the egg cysts enter the soil and can survive there for years, especially if it's damp. This is how farm animals can pick up the germ. It passes from their intestines to their muscles, and often tissues, and that's why humans can catch it from raw or undercooked meat or, in the case of goats, their unpasteurised milk. Like farm animals, humans can also be infected from soil if they don't wash their hands after gardening, or they eat raw vegetables, salad or fruit where the soil has not been completely washed away.

**Is it safe to handle cats?**
Should pregnant woman, people with AIDS or those receiving cancer treatment handle cats? When considering this question it is important to remember that the cat most likely to be shedding toxoplasma cysts in its faeces is the young kitten on its first hunting venture, and even then only for a couple of weeks.

After that it is extremely unlikely to pose any threat unless it becomes ill with a serious disease such as feline leukaemia virus (FeLV) or feline immunodeficiency virus (FIV). Even then, unless it has diarrhoea or is incontinent, the chance of the cysts being transmitted to a human handler is unlikely given the cat's fastidious cleaning habits.

So, the adult cat that has been sharing your home for years and who is healthy can safely be kept by pregnant women or people whose immune defences are weakened. Provided the basic rules of personal and kitchen hygiene are observed and the advice given is taken, pregnant women and people with AIDS for cancer, or other serious illnesses should have no fear of cats.

There is evidence that animals, especially cats, have a soothing and relaxing effect on their owners and there is not a better time to relax than in pregnancy!

**Are there tests and is there treatment for the disease.**
The answer to both is yes! However, it can be very difficult to diagnose toxoplasmosis in a pregnant woman, her unborn baby and in seriously ill people for a number of complicated reasons. There are several drugs which can kill the agent and which have improved the outlook for toxoplasmosis both in pregnancy and in people with impaired immune systems although we don't yet have a guaranteed cure. If you are worried, you must consult your hospital doctor.

**How to avoid getting it**
This advice is particularly important for women who are, or are intending to become, pregnant and for people whose body defences are impaired.

- If you are a meat eater, only eat meat which is well cooked, avoid any raw meat dishes. This applies to any meat. Remember, some types of cured continental sausage contains raw meat.
- Keep surfaces on which raw meat has been prepared scrupulously clean. If possible, keep a separate chopping board for raw meat. Always wash your hands with soap and water after handling raw meat.
- Keep raw meat separate from cooked meat in the fridge.
- Avoid goat's milk especially pregnant women or people whose body defences are impaired.
- Wash your hands after gardening with soap and water. Never eat with soil covered hands or fingers.
- Wash soil-covered vegetables and salad carefully until they are quite clean, and clean up any soil from kitchen surfaces afterwards.
- If your cat uses a litter tray, remove any faeces at least once a day. Wash your hands with soap and water immediately afterwards.
- Avoid cuddling, or allowing on to work surfaces, cats which are ill especially if they have diarrhoea or are incontinent.

It is possible (thought not proven) that pregnant women who assist with lambing when there is an outbreak of toxoplasmosis in the flock, are at risk of catching the infection from the placenta of an aborted lamb. So, if at all practical, this should be avoided.

***Source: A Cats Protection Guide to Toxoplamosis, 1999 (Cats Protection).***

# ORGANIC FARMING – RECENT IRISH PERSPECTIVES

*By Aidan Kerr*

The farming press in Ireland has recently published numerous articles on organic farming. Here are some of the main points that I thought might be relevant to those thinking of ***'going organic'*** in the Islands.

***Recent publicity***

- According to the UK Food Standards Agency organic food was not safer than conventional food and that it was a waste of the extra money needed to buy it.
- The equivalent Irish authority agreed with the first part but added that consumers perceived that organic food was more environmentally friendly, more wholesome, had better flavour and was better produced with regards to animal welfare.

***Developments***

- The Irish Government has informed their own '*Organic Development Committee*' to help Irish producers increase their share of the organic food market, which they regard as one of the fastest growing segments of the European food sector.
- The Government have also proposed to replace 3 separate organic certification schemes operating in Ireland with one based on EU regulations.

***Market Research*** (for the 'Irish Food Board').

- Annual sales are worth £25m and expected to grow at 30% in the next 3-4 years.
- 1,000 farmers and only 1% (32,000 ha) of the land is in organic production.
- 28% of consumers with a buy organic food at least once per month with 75% spending less than £20.
- They are likely to be townies and female buying for a small household and supermarkets are the main outlets.
- 80% would pay 10% more for organic food than for conventional food but about 50% lose interest when organic food costs more than 20% extra.
- 68% believe it is too expensive and that the availability and range is insufficient.
- 83% did not recognise any of the main organic symbols.
- There is a shortage of supply of organic grain to deed pigs and poultry.
- Annually around 3,000 cattle and 11,000 lambs are sold as organic with 25-50% premiums attainable.
- There are virtually no imports of organic red meat but 50% of organic dairy imports and 70% organic fruit and vegetable are imported.
- Potential growth areas are in processing, baby food and brand developments.

***Products***

- Golden Vale Ltd. one of the largest producers of 'ready to eat' meals, for supermarket giants such as Asda and Ireland, expect to almost double their production to achieve a £90m turnover partly by increasing their organic products. They are currently seeking 'organic produce' worldwide in places like Brazil and Thailand.
- The UK health industry is seeking producers of hem, flax, borage, evening primrose, calendula, pumpkin and mustard seeds.
- Safeway Ltd. has just sold the first organic milk (called *'Organic Life Milk'*) produced in Northern Ireland from a small farm with 27 cows and an organic chicken producing unit. The Chicken litter is used as fertiliser for the land. The demand for '*organic milk*' is expected to outstrip supply for the next decade. They expect to produce *'organic butter'* soon too.

***Production***

- Under the EU standard a lamb produced by conventional farming would qualify as '*organic*' if moved to an organic farm for just two months before slaughter.
- The Soil Association reported that organic farming benefited biodiversity in arable fields compared to conventional farming. There were; 5 times greater amounts of wild plants, more rare and threatened plants, 25% more birds along the edges, 1.6 times more insects and 3 times more spiders and butterflies. Pests such as Aphids were reduced.
- One organic producer in North Devon (690mm/yr rainfall) follows a four year grass clover pasture with 2-3 year arable cropping. Combinable crops are undersown with red clover or followed by forage rye as a green manure. Surplus grass-clover is mulched rather than cut to build up fertility. The fields are sub-soiled to reduce compaction and promote soil aeration. There are few weed problems. Cultra and Sante potatoes yield about 45 tonnes/ha. Field beans are grown to benefit soil fertility or provide protein in the winter supplements, which also contain 50 kg of seaweed meal for mineral supplementation.
- In the same area a successful producer of organic vegetables boxes and delivers them direct to households. His customers want to know 'what goes into their bodies' and wish to help protect the environment by buying organic produce. They are willing to pay 30-50% for these perceived benefits. He uses Calendula flowers to reduce damage to his crops by aphids. Cosmos, sweetpeas and sunflowers attract hoverflies that eat the aphids. Frogs in the specially built pond eat the slugs. Overall not much of the crop is lost to pests or disease, although the biggest problems are pigeons and rabbits.

A useful web site is www.farmersjournal.ie

**Diana Berntsen would like to inform farmers that she is back at Walker Creek and can be contacted on telephone 32296 or 32499**

## MOVE OVER - the intelligent bra is on the way!

***Source: New Scientist 15 July 2000***

Move over the Wonderbra. It's time for the intelligent bra!

Researchers at the Intelligent Polymer Research Institute (IPRI) at the University of Wollongong in Australia are developing a bra that will change its properties in response to breast movement, giving better support to active women and preventing breast pain and sag.

The bra will adjust its straps and cups as the wearer moves around, expanding and contracting to give maximum comfort and support. It will be guided by a microchip implanted in "intelligent" polymer fabric. The Director of IPRI, says "This represents a major advance in the field of technical textiles, which is gaining tremendous momentum throughout the world".

# REARING ORPHAN LAMBS part 1

***Source: Animal Research & Development Services, South Perth, Australia***

Orphan lambs occur in all flocks. They can result:

- *when a ewe has a multiple birth but only mothers one lamb*
- *when ewes die during or after lambing or*
- *because of poor 'mothering' by ewes.*

Poor mothering can be an important problem:

- *with maiden ewes*
- *in ewes that are undernourished in late pregnancy or*
- *in those that experience a slow or difficult delivery.*

Before deciding to rear a lamb artificially, recognise that a ewe can raise a lamb better than you can. If you can identify the ewe, it is worth attempting to re-mother the lamb if she is physically capable of rearing it, or to foster the lamb to another ewe. Do this by confining the ewe and lamb in a small enclosed pen either in a shed or by making a mothering-up pen that can be erected by 1.25 metre mesh panels laced together at each corner and with old seed or fertiliser bags attached to the four panels. The bags stop the ewe seeing out and being distracted. Make the pens stable by attaching them to steel pickets driven into the ground. In most cases, the ewe will mother the lamb in 24 to 48 hours.

**Colostrum:** Generally there are two types of orphan lambs – those that have been deserted at or soon after birth, and those that have remained with the ewe for one or two days before being orphaned.

In both cases the lamb may have a low body temperature so the first thing is to warm it up by placing it in a box under a lamp or next to the rayburn.

Lambs that have been suckled by ewes during the first 18 hours or more of their lives can be started immediately on milk or milk replacer. However, if there is doubt as to whether a lamb has received any colostrum, give it colostrum or a substitute for best results.

Colostrum is the first milk produced by a ewe during the 48 hours immediately after the birth of a lamb. It is yellow and thicker than normal ewe milk. The new-born lamb must receive colostrum or a substitute within 18 hours of birth, otherwise it has only a 50:50 chance of survival.

Colostrum contains:

- laxative for the excretion of the meconium – the first faecal discharge of a newborn lamb;
- nutrients – high levels of fat, protein (seven to eight times higher than the concentration in normal ewe milk), vitamins and
- antibodies that are absorbed from the lamb's digestive tract into its blood, and so protect it from infectious organisms.

Lambs are born without a frontline of defence against disease. Colostrum provides the antibodies that induce an initial resistance to disease. An early intake of a readily available source of energy (from the fat) protects against excessive heat loss during the first few hours of life.

Cow colostrum is the best substitute if ewe colostrum is not available. This can be obtained from the first milking of a cow and then frozen in small plastic bags (at about 15°C), each containing 100ml. When needed, thaw the colostrum at room temperature and then slowly warm it to 37°C.

The safest method to heat the thawed colostrum is to put it in a feeding bottle, which is then stood in a saucepan of water and warmed slowly. Place a thermometer in the feeding bottle during heating. If colostrum is heated above 37°C, the antibodies may be destroyed.

Feed the colostrum to the lamb, 100ml every six hours during the first 18 hours of life. If the lamb is small and weak, it is better to feed a smaller quantity more often -say every four hours.

If cow colostrum is not available, a substitute can be made from a mixture of 680ml of cow's milk, one beaten egg, one teaspoon of cod liver oil and one tablespoon of glucose. Feed the mixture at the same quantity and as often as the cow colostrum. Since it contains no antibodies, the lamb must build up its own supply of antibodies if it is to survive.

The easiest method to feed the colostrum or substitute to a lamb is by using a small bottle and rubber nipple. The lamb should place its tongue under the nipple and suck the fluid out. If the fluid trickles out, due to the lamb not sucking or the hole in the nipple being too large, then fluid can get to the lungs and cause pneumonia.

**Milk or milk replacers:** Ewe's milk contains more fat, protein and minerals than cow's milk. Nevertheless, lambs can be raised successfully on cow's milk, full cream powdered milk or a milk replacer, but will gain weight more slowly than a lamb raised naturally.

**Cow's milk:** Add 25 grams of full cream powdered milk to 400 ml of cow's milk to give a fluid closer to the richness of ewe's milk; or feed cow's milk.

**Full cream powdered milk:** When prepared according to instructions, the percentages of fat protein and lactose are similar to ewe's milk.

**Quantity and frequency of feeding:** Lambs vary in size and vigour and drink different amounts of milk. Under natural conditions a lamb will suckle the ewe up to 40 times each 24 hours. Therefore small, frequent feedings are more beneficial than a few large feeds.

Use the feeding program in the table below as a guide. For lambs that are small and weak, it is better to feed a smaller quantity more often – say every four hours. Feeding more than recommended amounts can cause scouring.

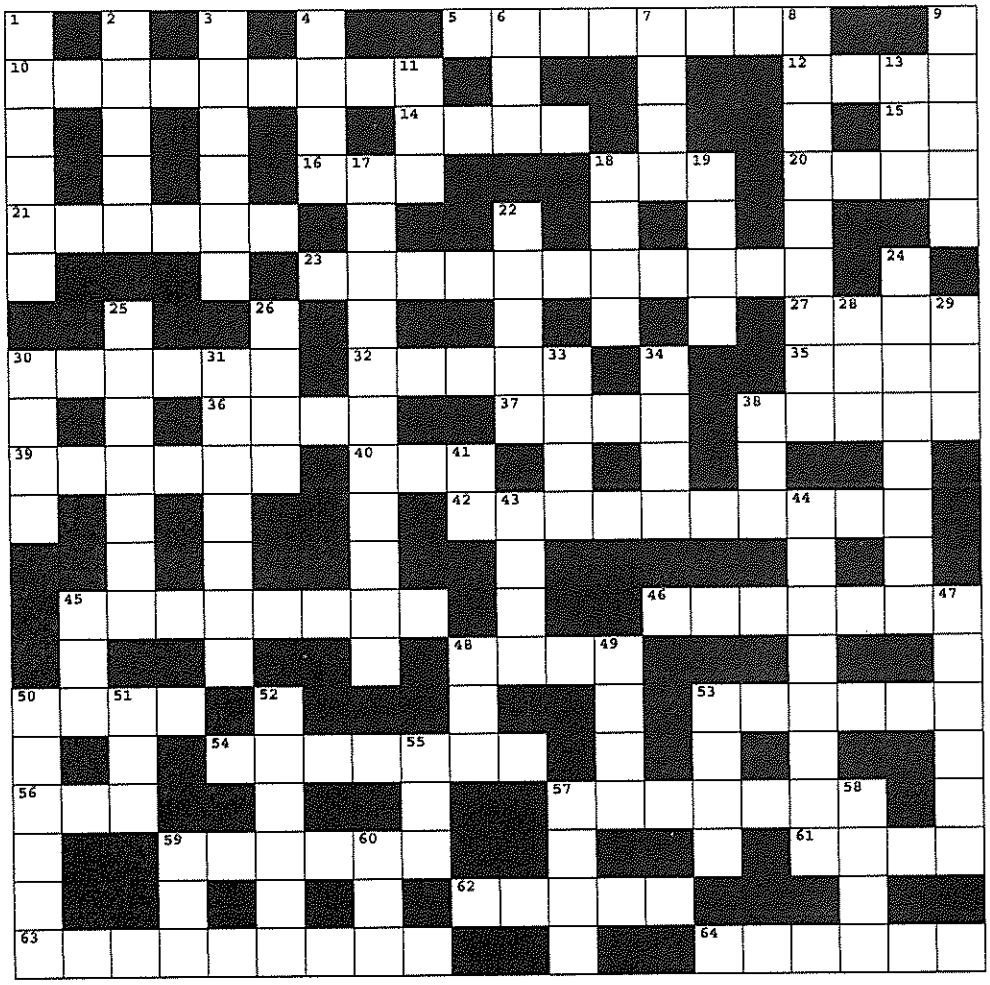
***Table of quantity and frequency of feeding:***

| Age (days) | Body weight (kg) | Volume of milk per feed (ml) | Total volume of Milk per day (ml) |
|---|---|---|---|
| 0- 4 | 2.5 | 75 – 100 | 300 |
| | 3.5 | 110 – 150 | 450 - 600 |
| | 5 | 150 – 200 | |
| 4 – 5 | | 160 - 250 | 500 – 750 |
| 6 – 14 | | 250 – 330 | 750 – 1000 |
| 15 plus | | 500 – 660 | 1500 - 2000 |

A lamb does not have to drink milk or substitutes at body temperature (37°C), and cold milk does not cause scouring. However, it is preferable to warm the fluid for the first two or three days. If an automatic demand feeding system is used, then cold milk or replacer can be fed after two or three days.

**In Part 2 (next Wool Press)** – *Method of feeding; Supplementary feed; Shelter; Hygiene; Complications; Pneumonia; and general.*

October 00



## ACROSS

5. MONDAY TO FRIDAY - TRADITIONALLY
10. AREA WHERE THE STEPS ARE LOCATED
12. A REFLECTED SOUND
14. DECORATED, LIKE A CAKE
15. A CHOICE WORD?
16. PECULIAR
18. A SECTION OF A PAW
20. TAIL-LESS MONKEYS
21. ROTTEN - AS IN EGGS
23. HOME OF THE NATIONAL BEEF HERD
27. AJAR
30. CROP FOR HORSES?
32. THROW
35. TRAVEL ON A HORSE
36. A MALE DEER
37. BE AWARE OF
38. LUKE WARM
39. NECK SCARF
40. SMALL MARK
42. MEATCAKE
45. SUPERNATURAL MYTHICAL CREATURE
46. MISS 'GONE WITH THE WIND' O'HARA
48. BABY CART
50. RIVERBANK RODENT
53. MADMAN
54. FIRE STARTERS
56. PORTION OF A FELLED TREE
57. FOOT IRON
59. FALKLAND VULTURE
61. SMALL RODENTS
62. DENIM TROUSERS
63. HAIRY SPIDER
64. PIGLET SOUND

## DOWN

1. WEATHER MAP LINE
2. UNDRESSED
3. PLASTERER'S TOOL
4. MAN WHO SAVES THE DAY
6. RAW METAL
7. CHILDISH FATHER
8. SIGNAL WITH FLAGS
9. NORWEGIAN LANGUAGE
11. EYE PROTECTION
13. GARDEN TOOL
17. SOWING METHOD (6,4)
18. EVERGREEN TREE
19. LET FALL
22. BROTH
24. ANCESTRAL LINE
25. TALL MAMMAL
26. TALK INFORMALLY
28. APPLE SEED
29. AUSTRALIAN MR KELLY
30. POTATO BAG PERHAPS
31. SECTION OF A BOOK
33. LEG JOINT
34. WIPE CLEAN
38. SAILOR
41. CONSUMPTION
43. FOR ALL FUTURE
44. COMMON FLOWERING POT PLANT
45. WHAT PERSON?
47. RUGBY MOVE
48. FILLED PASTRY DISH
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# The Wool Press

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**All the regular features and more!**


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## PROCEDURE FOR COLLECTION OF MID-SIDE WOOL SAMPLES FOR THE TESTING OF MICRON & YIELD & WORMY INFORMATION

*By Derek Clelland*

## WEATHER 1999-2000: DRIER, WARMER, SUNNIER & WINDIER!

*By Aidan Kerr*

## INTRODUCTION - PETER JOHNSTON (PASTURE AGRONOMIST)

## MULLET, MOSS, RESEEDS AND TREES - THE ESTANCIA 'JOLLY'

*By Ailsa Heathman and Aidan Kerr*

## THE CALVING PROCESS & ASSOCIATED PROBLEMS

*By Cameron Bell*

## FIRST OF THE LAMB TRIAL RESULTS

*By Sean Miller*

# EDITORIAL PAGE

**Editor:**
***Charlene Rowland***

This month just seems to have gone so quickly that I'm finding it hard to think what to write in the Editorial this month. Christmas is just around the corner, more money expense!

This Wool Press is a bit of a wormy one this month as Derek is always getting asked about his worms so he thought this information will be of help to those of you who are interested in the wriggly little fellas!

Mandy and I have got our feet firmly tucked under our desks in our new office. If any farmer or farm employee would like to come and visit us even for a coffee, please do, our door is always open.

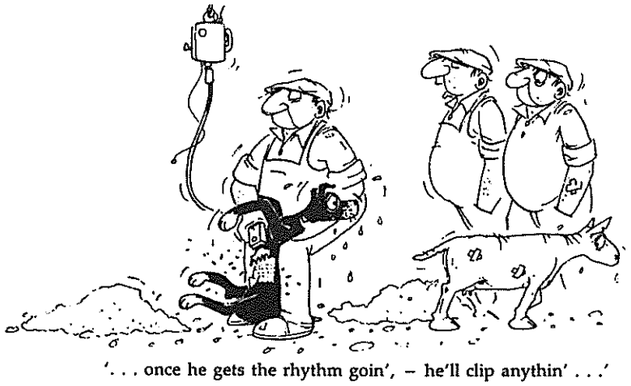
As many farmers are about to come to their year end with their accounts on our book system, I would be willing to come to your farm and set up the accounts system on your computer if you have one. This system is very easy to use and if you are familiar with excel then you won't have a problem. If you live on the East Falkland then a day trip can be easily arranged. Give me a call.

Mandy and I had a very successful three days on the West last week driving to as many locations as possible and seeing up to 11 farmers. Many thanks for all the tea and cakes and it was a pleasure to see you all and have a good chat over things.

One farm we did visit was Danny and Joyce at Crooked Inlet. We both were most impressed with the Self Catering Cottage. Well done to you both on an excellent cottage. We both have plans in the very near future to visit and sample the hospitality. If you're in a ponder over what to do for a short break, I can recommend Crooked Inlet.

The Department of Agriculture would like to say a big farewell to Maggie in the Veterinary Services. Maggie has got her self a new job with the Social Services and we all wish her well. We also like to wish Sarah Forster who has been promoted to the Veterinary Services the very best of luck and hope she enjoys her new job.

Do you listen to the radio on a Friday about 12.30—if so, please could you let me know what you think of 'CAMP MATTERS' programme?



'. . . once he gets the rhythm goin', – he'll clip anythin' . . .'

**Inside this issue:**

*Mullet, Moss, Reseeds and Trees—The Estancia 'Jolly'. By Ailsa Heathman and Aidan Kerr.*

*First of the Lamb Trial Results. By Sean Miller.*

*Procedure for Collection of Mid-Side Wool Samples for the Testing of Micron and Yield.*

*Wormy Information By Derek Clelland*

*The Calving Process & Associated Problems. By Cameron Bell*

*Introduction—Peter Johnston (Pasture Agronomist).*

*Weather 1999-2000: Drier, Warmer, Sunnier and Windier! By Aidan Kerr*

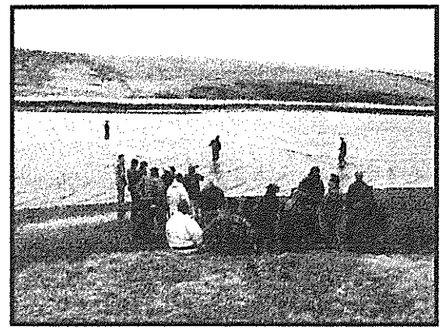
*...and much more!*



# MULLET, MOSS, RESEEDS AND TREES – THE ESTANCIA 'JOLLY'

*By Ailsa Heathman and Aidan Kerr*

On another windy day, over 20 'Easters' and some DoA staff gathered at Estancia farm for a farmer's jolly on Wednesday 18th October. Simon Hardcastle and Norman Glass of Falkland Fresh Ltd joined us for a fishing debate, followed by a demonstration of Mullet fishing in Long Creek .

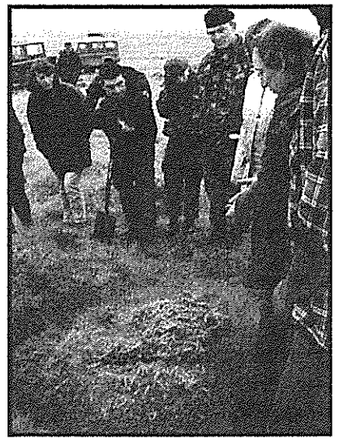


*Photographs showing the technique of netting and bringing in the catch.*

After two trawls of the net there we proceeded to Corral Pass and managed to land a few mullet big enough to satisfy the requirements (2 boots long!) for the new fish processing plant.

From there, we drove to Impossible Valley and encountered a number of buffalo ditches. We also stopped to look at Sphagnum moss and to debog a vet or two!

We travelled East from there, along the foot of Bluff Cove Mountains incorporating a battle field tour as a bonus. There was a bomb crater below Bluff Cove Peak where Brigade Headquarters were bombed on 13th June 1982 by Argentine Skyhawks. A bit further down the valley we found a sheltered spot for a snack, overlooking one of the 1982 artillery batteries and then drove on into the reseeds.

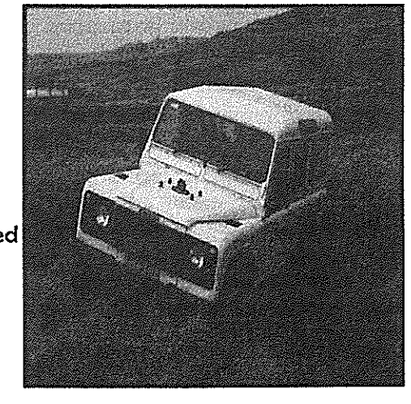


*Sphagnum moss*

*The 'jolly' farmers inspecting the Argentine bomb crater.*

Aidan Kerr updated everyone with progress on the shelterbelt in which the Lodgepole Pine originating from Coastal Alaska has grown best.

The reseeds were then scrutinised. These range from 2 to 5 years of age. We saw the benefit of burning off the trash (left behind after rotavation) for successful grass establishment. We then returned to the house and viewed the latest and best reseed that is used for hay.



*Vets in a bog!!*

After tea, there was a tour of the gardens and greenhouse with a spirited debate bringing the day to an end.

***Hopefully we'll see you all again in April 2001 at Fitzroy***

# INTRODUCTION – PETER JOHNSTON (PASTURE AGRONOMIST)

Charlene asked that I write an article for the Woolpress to introduce myself.

At the beginning of October 2000 I started in the role of Pasture Agronomist in the Pasture Improvement Program with the Department of Agriculture. After a month on the ground I feel I am developing a reasonable understanding of the issues facing pasture improvement in the Falkland Islands. The DOA staff and farmers I have met to date have greatly assisted in developing this understanding. In order to develop the Pasture Improvement Program further it would be helpful if you knew a little of my background.

I grew up in Brisbane, Australia and studied Agricultural Science at the University of Queensland. After finishing University I moved to Charleville in south west Queensland (Map 1) to take up a position as Pasture Agronomist with the Queensland Department of Primary Industries. Charleville is approximately 800 km (or an 8 hour drive) west of Brisbane.

South-west Queensland covers approximately 32 million ha and experiences a semi-arid sub-tropical climate (230 - 500 mm average annual rainfall, with frosts common in winter and summer maximum temperatures around 45°C). The region supports an extensive grazing industry characterised by low inputs and relatively low returns per unit of land. The majority of the regions four million sheep and 600,000 cattle graze native unimproved pastures. There are about 670 properties ranging in size from 5,000 ha to 300,000 ha.

The vegetation is a mixture of timbered mulga (Fig. 1) and treeless Mitchell grass pastures (Fig 2). The mulga soils are predominantly sandy red earths, acid in reaction (pH 5.5), low in nutrients (total nitrogen 0.044%, total phosphorus 0.025% and organic carbon 0.77%) and with a low water holding capacity (8.6% at -33 kPa). Mitchell grass pastures are found on cracking clay soils of slightly better fertility and water holding capacity. As in the Falkland Islands, ninety percent of annual pasture growth occurs over summer (October to March).

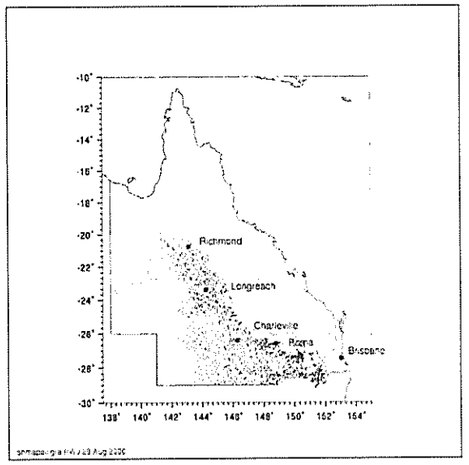
I spent 12 years in Charleville working on a range of pasture related activities. These included the assessment of pasture condition in a number of long-term sheep grazing trials, the measurement and computer modelling of pasture growth rates, the harvesting, cleaning and sowing of native grasses and the assessment of land resources for long-term livestock carrying capacity of individual farms. In western Queensland I enjoyed working in the extensive livestock industry and working closely with farmers. Most of the work described above was conducted on farms in close collaboration with farmers.

For the three years before moving to the Falkland Islands I worked in middle management in the Queensland Department of Primary Industries – Sheep and Wool Institute in Brisbane. In this role I lead a small research, development and extension team focused on wool business development in Queensland. The Queensland wool industry is based on merinos and is predominantly located in western Queensland (Map 1). It contributes only about 9% of the Australian wool clip. Some issues facing farmers in the Queensland wool industry at present are declining terms of trade, legislative restrictions for vegetation management (tree clearing), native title claims, chemical residues on wool and access to services (particularly communications).

The pasture improvement program in the Falkland Islands has many similarities to a comparative program that was conducted from the 1960s to late 1980s in western Queensland. As in the Falkland Islands, the native pastures of western Queensland have a short growing season (November to March), and grow on infertile soils. As a result they are low in protein, energy and nutrients for much of the year. The low quality of the native pastures limits livestock growth rates and wool and beef production and subsequent income for farmers

In western Queensland over 500 grasses, legumes, shrubs and trees were evaluated for their ability to grow and improve the quantity and quality of forage available to livestock. A small number of grasses and legumes performed well, given the poor soils and unreliable rainfall. However, when evaluated in grazing trials it became evident that the majority of these species could not survive continuous year round grazing. They required a rest from grazing at critical times of the year in order to survive. In western Queensland it was and still is difficult to effect this rest due to the inability to manage kangaroos and feral goats. Despite this, one improved grass (Buffel grass) has been successfully established on both sandy red earths and black cracking clay soils.

With these experiences I hope I can make a valuable contribution to agriculture in the Falkland Islands through the Pasture Improvement Program. I aim to build on the work of David Parsons and others to accelerate the establishment of improved pastures in the Islands.




**Map 1**. Location of the 2400 farms in Queensland, Australia with Sheep

**Figure 2**. Oesophageal fistulated sheep and cattle in a grazing trial on Mitchell grass north of Charleville.

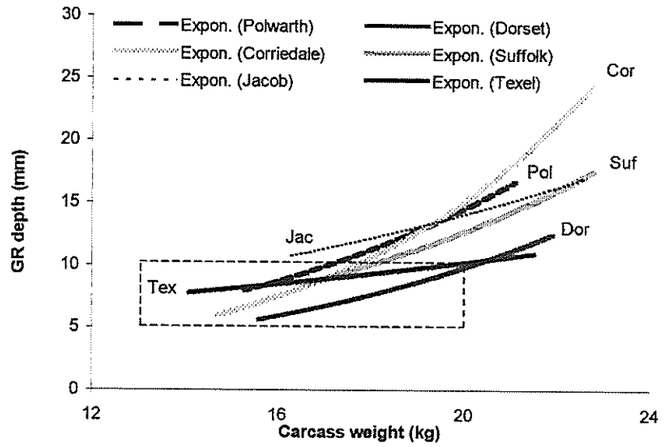
**Figure 1**. Merino sheep grazing mulga country near Charleville in western Queensland.

# FIRST OF THE LAMB TRIAL RESULTS

*By Sean Miller*

Well,all of the lambs have been slaughtered now and I'll start getting the results together properly over the next few weeks. As an interim measure, the following are some important messages to come out so far.

***Figure 1. Breed relationships between carcass fatness and carcass weight***




A point of explanation – the GR site is the point at which carcass fat levels are commonly measured, and it is a standard in specifying carcasses within the meat industry. It is measured at the 12th rib at a point 11 cm down from the backline, and is simply a measure of the depth of the tissue between the rib bone and the outer skin (in millimetres). This measurement is also related to condition scores i.e. GR's of 1 to 5 mm equate to condition score 1, GR 6 to 10 mm = score 2, GR 11 to 15 mm = score 3, GR 16 to 20 mm = score 4, and GR 21 to 25 mm = score 5. You can measure these condition scores with a bit of training just by feeling the short ribs of sheep when they run through the race. This is an essential practice when selling animals to meet predetermined specifications.

In the graph above, the area inside the dashed box above is the zone within which the military contractors would purchase lamb carcasses. As you can see, pretty much all breeds fit into the area at some stage in their growth. The major effect of breed is that the Dorset and Texel sires are capable of producing larger carcasses for the equivalent carcass fat level as breeds such as the Corriedales, Polwarths and Suffolks. For practical purposes, Polwarths, Corriedales and Suffolks would happily produce 14 to 17 kg carcasses within the 6 to 10 mm GR range (which equates to liveweights of 32 to 37 kg), whilst Texels and Dorsets would safely produce carcasses up to 19 kg (42 kg liveweight).

To covert the carcass weights in the figure to liveweight, multiply by 2.2. The lambs dressesd out at about 46%; that is 54% of the dead animal was offal, hide and head. Since a pound (lb) is 45.4% of a kilogram (kg), a good rule of thumb is that liveweight (in kg) is about equivalent to carcass weight (in ponds). And for those familiar with condition scores, a GR measurement of 6 to 10 mm is equivalent to condition score 2.

I'll have some more detailed results for the next Wool Press, including some results of the taste testing. Our plan is to serve small cubes of meat to 'uneducated taste-panels' to determine their preferences, what they think of the quality of the meat (tenderness, taste, juiciness etc.), and whether people can or cannot taste different breeds!

## PROCEDURE FOR COLLECTION OF MID-SIDE WOOL SAMPLES FOR THE TESTING OF MICRON AND YEILD

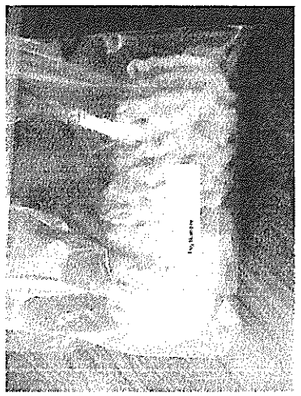


**Figure 1**: Locate the correct body position to sample. One hand span down from the back line, over the last rib.

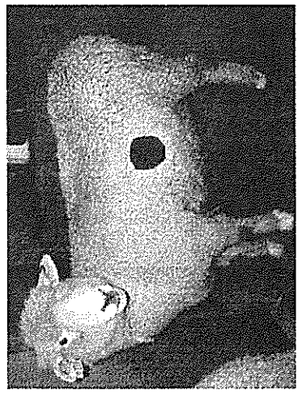


**Figure 2:** Shows location of the area to be sampled. The wool can be taken from the fleece in this area during shearing. A good handful of wool should be sufficient.

**Figure 3:** After collecting the sample, place it in a plastic bag so that the staples are tidy.

**Figure 4:** label the plastic bag with the farm name, the date, the fleece weight and the tag number of the sheep.

**Figure 5:** Carefully roll sample up in the plastic bag and fold the open end of the plastic bag back over itself to keep it closed.

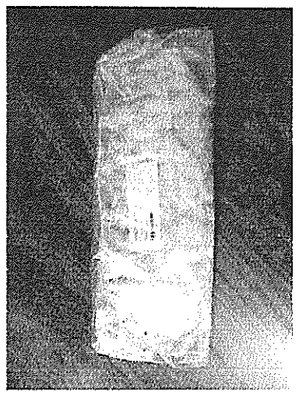


**Figure 6:** Post to the DOA laboratory with all other samples from your flock.

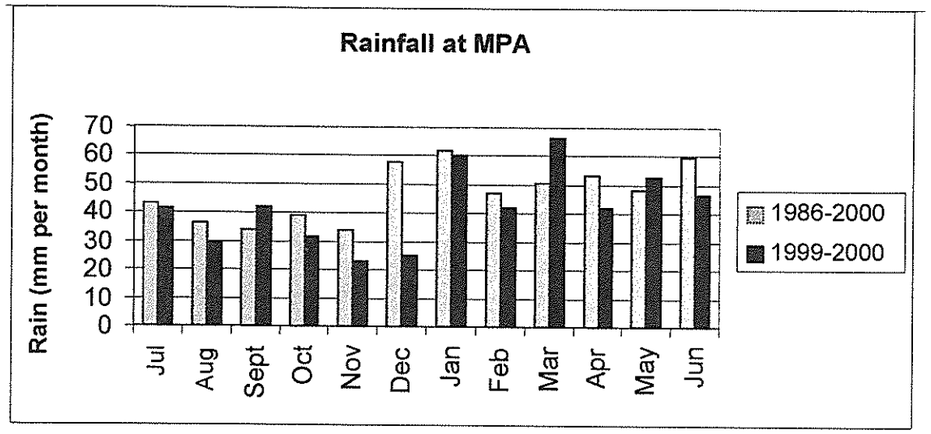
# WEATHER 1999-2000 :
# DRIER, WARMER, SUNNIER AND WINDIER!

*By Aidan Kerr.*

*(data courtesy of the Meteorological Office, MPA and processed by Marie Summers).*

Overall the weather in 1999-2000 was 11% drier, 7% warmer, 2% sunnier, and 2% windier.

## Rainfall

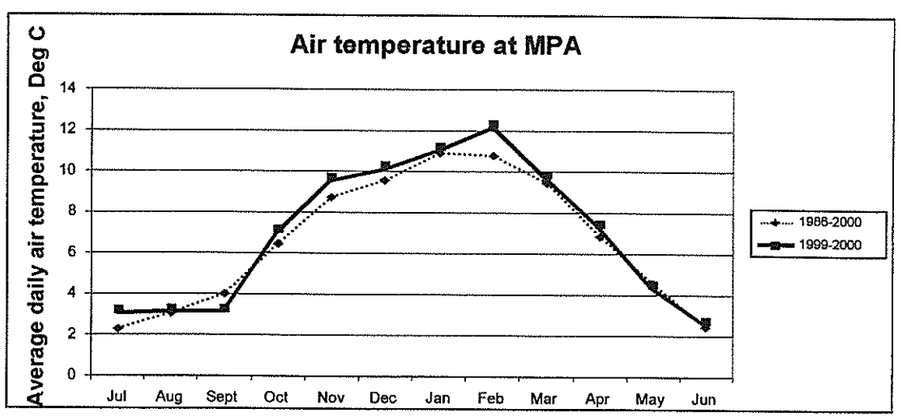


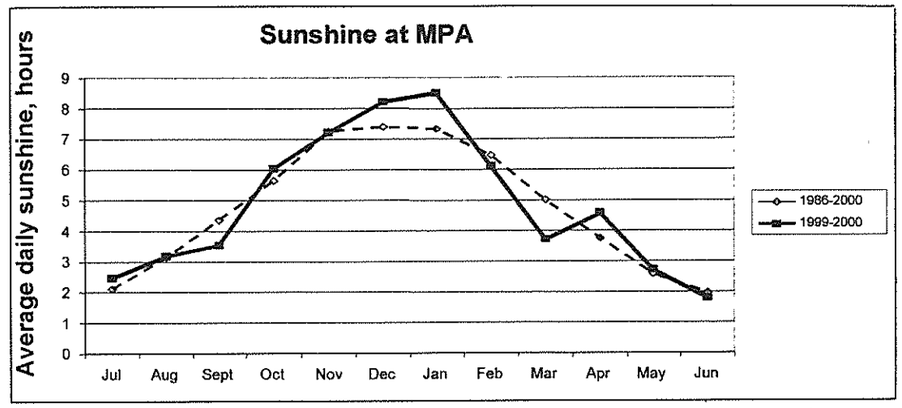

Total rainfall during 1999-2000 was 11% lower (501 mm) than the average since 1986 (564 mm). Nine out of the twelve months were drier than their average. More importantly five of the six growing months had shortages too. In particular November and December were 32% and 57% drier. These early season shortages may have adversely affected plants that had just begun to grow. Those that may not have had well-established roots, with access to adequate soil moisture, may have been more drought stressed than usual. Monthly rainfall was only higher than the average in September, March and May.

### *Air temperature*

Overall the air temperatures were 0.5°C (7%) warmer and the growing season (October to March) was 9% warmer. The main exception was September 1999 which was 18% cooler.

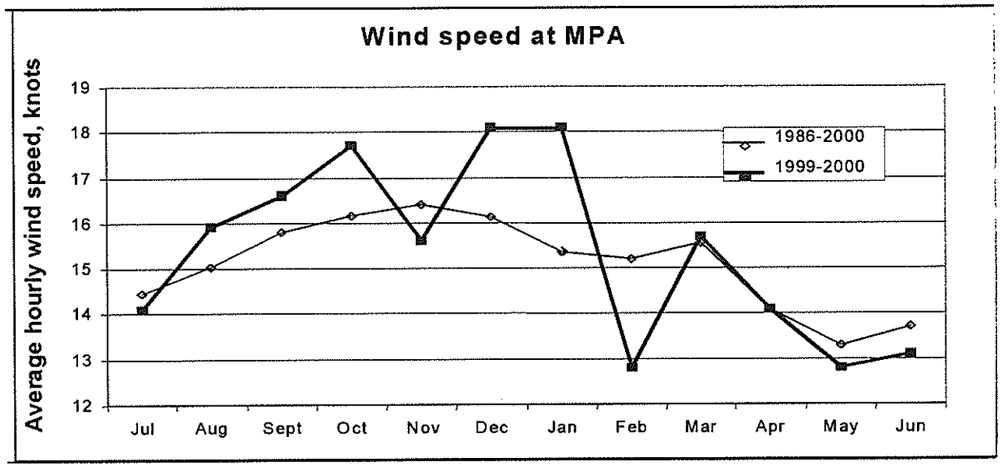
## Sunshine




Overall there was 2% more sunshine than the average since 1986. The most important differences were the much sunnier conditions in December and January. Combined with the higher temperatures this led to some good growth of trees on our shelterbelt. However the sunnier days of summer were balanced by much reduced hours in September and March.

## Wind Speed




The growing season was 3% windier than usual. However the windier December and January were well balanced by the calmer conditions of November and February. The early winter was also slightly calmer than usual.

When this data is taken with that of 1989-99 (see Wool Press August 1999) you can see that there was a monthly rainfall deficit for every month (except September 1999) between March 1999 and 2000 – the wettest months in both years.

The 1999-2000 data seem to support most of the conclusions made by Gerry Hoppé (Queen's University, Belfast) about the climate here over the last 120 years that;

- ❖ total rainfall had decreased,
- ❖ rain events were more fragmented with longer dry spells,
- ❖ sunshine occurred for longer periods the previous seasons.

## GLOBAL WARMING IS GREATER THAN PREDICTED - STUDY

*By John Vidal, published in the Irish Times.*

Leading climate scientists now agree that human pollution, mainly caused by burning fossil fuels has contributed substantially to global warming in the past 50 years and that the Earth is likely to get far hotter than previously predicted with immense consequences for people and wildlife everywhere.

The report by the Intergovernmental Panel on Climate Change, a UN-sponsored group of hundreds of the world's leading atmosphere scientists, has been sent to governments this week. The report suggests that the upper range of warming over the next 100 years could be far higher than estimated in 1995. Its worst case scenario now raises the average global temperature 11 degrees (F) from its 1990 levels.

Average temperatures today are 9 degrees (F) warmer than they were at the end of the last Ice Age. In its 1995 analysis the panel concluded that a worst case would raise temperatures a conservative 6.3 degrees (F).

The panel has now concluded that the burning of fossil fuels and emissions of man-made chemicals have "contributed substantially to the observed warming over the last 50 years". The scientists believe, too, that temperatures could go far higher and faster than previously predicted if emissions are not curtailed. There is "an increasing body of observations that provide a collective picture of a warming world that cannot be solely explained by natural forces. Emissions of greenhouse gases and aerosols due to human activities continue to alter the atmosphere in ways that affect the climate system," the report says.

Global warming is expected to impact most deeply on poor countries, leading to huge numbers of environmental refugees, crop failures and extreme weather. The US is responsible for 23 per cent of carbon emissions, with Britain the same as the whole of Africa at 3 per cent.

**ESTANCIA FARM SHEARING COMPETITION will take place on Friday 29th December. Details have not yet been made final and we hope to advertise in the next edition of the Wool Press.**

## TO ALL FALKLAND FARMERS.

## WEST FALKLAND RAM & FLEECE SHOW

The fourteenth West Falkland Ram & Fleece Show will be held this year on Friday 29th December 2000 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 WFR&FS.**

## *THE CALVING PROCESS & ASSOCIATED PROBLEMS*

***By Cameron Bell***

Although many cows have already dropped their calves, there are bound to be others yet to do so. The following is some background information as to what is normal and some basic pointers for when problems arise.

**The birthing process**

This can be divided into four stages, although it is a continuous process and often the stages overlap.

(a) *Preparatory stage*
This stage is characterised by enlargement of the udder, loosening of the vulval area and appearance of thick mucus hanging from the vulva. These signs, however, may not always be obvious.

(b) *Cervical dilation (first stage of labour)*
This is the onset of birthing or labour. The cervix relaxes and dilates, and as the uterus starts to actively contract, the calf is forced into the birth canal. Animals at this stage will often look uneasy. Often at this stage, farmers will want to interfere, such as by moving them or even worse, running them into a yard to have a feel. This stage may normally last for **1-3 hours.**

(c) *Expulsion of the calf (second stage of labour)*
As the calf is pushed into the birth canal by contractions of the uterus, the membranes (i.e. what becomes the *afterbirth*) rupture at this stage. Rupture of the membranes (i.e. *breaking of the water*), is not always apparent however. Particularly with heifers, animals in this stage of labour for a **period of more than 3 hours** require further intervention (ie. 3 hours from when the 'water breaks').

(d) *Expulsion of the afterbirth (third stage of labour)*
The expulsion of afterbirth should be completed **within 3 days** of calving. Animals with afterbirth retained for longer than this period require veterinary attention. Animals that have experienced calving problems tend to be more prone to retaining the afterbirth, so pay particular attention to such animals.

**Calving difficulties**

Calving difficulties often arise from calves simply being positioned incorrectly when they enter the birth canal. Another common cause is the calf being oversized in relation to the cow's birth canal (*foeto-pelvic disproportion*). This is often related to (i) heifers being mated to the wrong type of bull (eg. a large-framed bull); or (ii) other age classes being overfat. Cows should calve in medium body condition. **Aim for a condition score of 2.5-3 at calving.**

**What to do when faced with a calving problem**

Early detection of problems is the best means to avoid complications. Close to calving time, it pays to check animals preferably 2-3 times a day, but without disturbing them. Heifers in particular should be kept close to home.

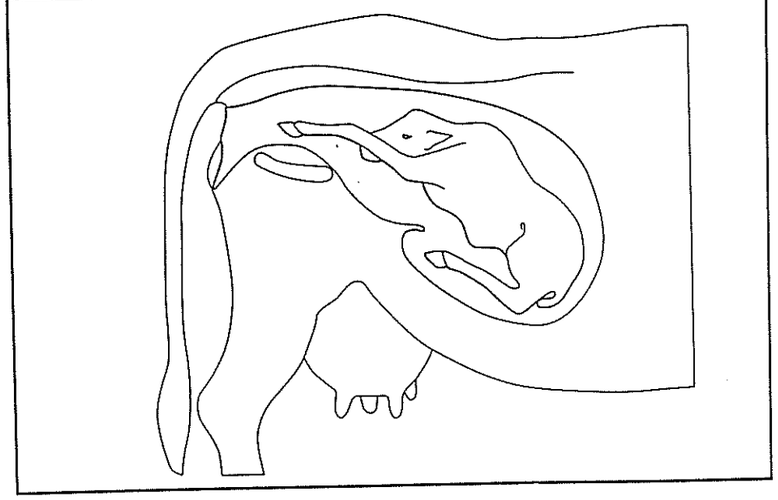
Intervening when some types of calving problems arise can be undertaken successfully by farmers if a few important points are taken into account. The basic equipment required is: a halter, 2 leg ropes, lots of lubricant and disinfectant/soap. Although vets use special obstetrical lubricant, anything close to hand such as cooking oil or paraffin oil may be utilised.

If there is an opportunity, the animal should be put in a race/crush (or alternatively the bale in your milking shed). Be warned however that there should be a means of getting the cow out in the event she goes down during the calving. The easiest way to do this is to have her in a crush, with a halter on the cow and opening the side gate of the crush if she goes down.

Once the cow is suitably restrained and her rear end is cleaned up with disinfectant/soap, apply lots of lubricant onto your hand and the vulva, and manually assess what the problem is. Use your hands as your eyes and picture the calf in your head whilst doing so. Determine if the calf is alive by squeezing the claws, finger in the mouth or touching the eye.

It is impossible to describe every possible scenario in this article; in many circumstances veterinary attention will be required. However, some situations are easily rectified by the farmer. Either way, the aim is to get the calf into the normal birthing position (Figure 1) whereby the fore-legs are stretched out in front with the head resting on them, as if it was 'diving into water'. Ensure you have two fore-legs, rather than one fore-leg/one hind-leg or two hind-legs (these alternatives will dramatically alter the situation!). The distinguishing feature is that all the foreleg joints below the elbow bend towards the rear-end of the calf, whilst the hind-leg has a joint (*hock* or ankle),that bends towards the head.

**FIGURE 1 Normal presentation**



The calf needs to be in the normal birthing position before attempts to 'pull' the calf are made. If this is achieved, then a leg rope is placed on both fore-legs, with one throw above the fetlock and one throw below to distribute the tension. Place more lubricant around the calf and in the vagina (a syringe can be used for this) and then alternate the tension on each foreleg so that the calf is 'walked out', (rather than putting constant tension on both leg ropes simultaneously). One strong person should pull the legs whilst an assistant should help guide the head and work the vulva lips over the calf. For a standing cow, the calf should be pulled downwards towards the ground. Under no circumstances should winches, vehicles, etc be used to pull calves.

Other scenarios to keep in mind include:

- breech birth
- head bent to the side, but fore-legs still presented normally
- one fore-leg and one hind-leg coming first
- cervix not properly dilated
- uterus twisted (appearing as though cervix is not dilated)
- heifer/cow is exhausted and contractions have stopped
- deformed calf

**After-care**

In all cases where there has been interference to the normal birth process, an injection of long-acting penicillin for the cow is worthwhile. The stress of calving often leads to weak calves, so attempt to lie the calf on dry hay/ground out of the wind. Rub a little afterbirth on the nose of the cow when she is still in the crush and leave them both in a small yard/paddock undisturbed. Calving paralysis sometimes occurs with various degrees of severity: from being unsteady on feet through to being unable to rise. Veterinary attention is required for these cases, but the general rule is that if there is no improvement within 7-10 days, then it is not worth persevering with.

**Concluding remarks**

- Regular supervision without disturbing animals is essential for early detection of problems.
- Don't jump in too early and assist.
- Record the time you make observations.
- Use lots of lubricant.
- Be 100% sure the calf is in the correct position before you attempt to pull.
- Seek veterinary advice if you have any concerns or reservations.

## WANTED

To Teds dismay, Sheila Jones of Head of the Bay Farm would like to get as many pure black female or male lambs as possible.

If you think you can help her then please give her a call on 31066

# WORMY INFORMATION

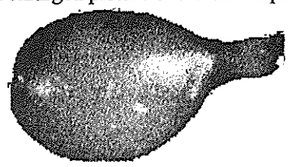
***By Derek Clelland***

In these days of eco-friendly consumerism many people want to compost their kitchen and garden wastes. This is helpful in reducing material going to landfill sites and also can be used to fertilize your own garden, thus reducing the need to buy chemical fertilizers. Before you start, a thought should be given to how to do this most effectively. Worms are now being used in many parts of the world to compost these types of waste as they are highly specialized and efficient composters. However some basic knowledge of how they work is essential to understanding the most efficient way to deal with a worm farm.

### Worm Biology

Worms that are sexually mature have a prominent 'band' around their body, called the 'clitellum'. Most worms are 'hermaphrodites', which means that each worm has male and female reproductive organs. During mating, the worms will join together at the clitellum (sometimes for quite a long period of time). Reproductive material is exchanged. When the worms separate, a ring of mucus material forms at the clitellum of each worm. The worm will then wriggle backwards, and the mucus ring slips off over the head. The ring seals, forming a 'capsule' (also called an 'egg'). All the necessary reproductive material is sealed inside. The capsules are opaque white at first (and soft), quickly hardening and changing to a yellow colour. Over the next 3 weeks or so (depending on conditions), the colour changes from yellow to a rusty brown colour. The capsule will then hatch, producing from 2 - 20 baby worms. The average is about 4. It is also possible for some worms to reproduce by themselves, particularly if the species feels threatened.

This is an enlarged picture of a worm capsule (egg):

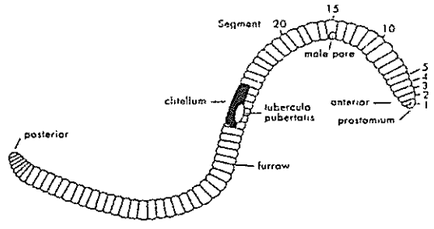


The capsules are about the size of a grape seed, and can be hard to find in the bedding. Once you have seen one though, you'll know what they look like and will find them all the time. They start off a creamy white, then shades of yellow, then rusty colour just before hatching.

Keeping your worms happy isn't too hard. They like to live in a dark moist environment that is not disturbed too often. They live quite happily in a bedding of shredded newspaper (damp), shredded cardboard, straw, leaves, compost. They will come to the surface to feed and excrete castings, so a damp newspaper or hessian bag laid over the surface of the bin provides them with 'safety', and encourages them to stay in the bin. This will also stop the worm bin from drying out too much, especially in hot weather.

Not all worms are suitable to stock your worm bin however, Lumbricus rubellus and Aporrectodea caliginosa are suitable for composting.

*Diagram of a worm:*



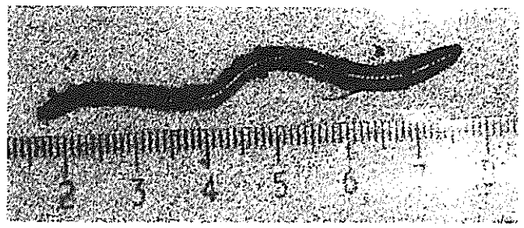

The segments are numbered from the worms 'nose' to its 'tail'. The clitellum is sometimes referred to as the saddle of the worm.

## WORM IDENTIFICATION

**Lumbricus: -**

Colour: Dark purple/red with a paler underside

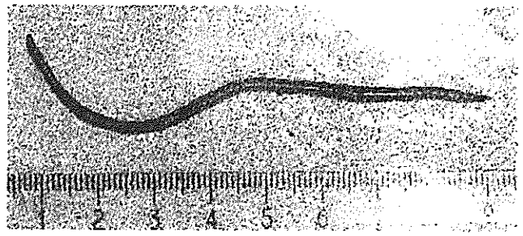
Features: Bulbous head with a pointed snout. The mature worm should be greater than 55mm long with the clitellum beginning on segment 27.



**Aporrectodea: -**

Colour: Pink or pink/green. The head is pinker than the rest of the body.

Features: Head is pointed. Deposits casts on the surface. The clitellum should start after segment 27.



As can be seen in the pictures above, Lumbricus is a darker red, thicker and shorter than Aporrectodea. The best places to find such worms in the Falkland Islands are in the old established gardens or under horse dung.

### Bedding Material

Bedding is the name for the 'safe' material that the worms live in. Something that is not likely to heat up and kill them. Materials that are carbon based are usually used. Chopped straw, shredded paper or cardboard or old leaves are commonly used. A mixture of these things makes a good bedding material. 'Aged' horse or cow manure can also be used (fresh manure can heat up). Soaking the materials for a few hours (overnight is good) allows them to become nice and moist. Then squeeze out the excess moisture till only a few drops come out, before placing in the bin. Place the worms on top, and they will bury down away from the light.

Many suitable materials are readily available to make the initial bedding for your worms. A variety of materials mixed together, such as chopped straw, shredded newspaper and cardboard, old leaves and grass clippings (be very careful with grass, as it can heat up), aged manure and peat, creates an ideal worm situation, providing a wider variety of nutrients for a good finished product (castings). Any bedding material has to be soaked in water, then wrung out till only a few drops of moisture remain, before putting the worms in. Worms should be able to move easily throughout the bedding material, as their sensitive skins can be easily damaged by rough material or bedding that is too dry.

Have the bedding already prepared before your worms arrive, to reduce stress on the worms. They will then be able to settle in to their new home upon arrival.

Care has to be taken to ensure that the bedding does not compact (lawn clippings will), as this restricts air circulation in the bed, which besides being bad for the worms, will cause waste food to become anaerobic (no air)[Smelly!]. A little straw or wood shavings (not treated pine) mixed in will help in preventing this. If the bedding becomes unpleasant for the worms to live in, you will probably have a mass exodus on your hands. Gently moving the surface of the bin around about every two weeks, adds air to the bin, and lets trapped bacterial gases to escape, allowing the worms to have enough fresh air. As worms 'breathe' through their skin, air and moisture in the bin are essential!

### Moisture Level

Bedding material needs to be able to retain moisture, as the worm's body is about 80% moisture and it has to be able to absorb this moisture through it's skin to stay healthy. However, the worm bin also needs to be well drained, as too much moisture will force air out of the bedding and this is just as necessary for healthy worms. A moisture level of about 60% will keep the worms quite content (when squeezed, a few drops of moisture will be expelled). Too much moisture can create 'anaerobic conditions' - not enough air, so don't saturate the bedding material. Of course, in hotter conditions the worm bed may need to be watered more often (using a spray bottle is a good idea), and worms may prefer to have their bedding a little damper, but not soaking wet. The bottom level of the worm bed will always be wetter than the top,

where evaporation dries the surface, so overall moisture level cannot be judged by the top of the bin. A moisture meter that is used for pot plants may also be used in the bin, but feeling the bedding is just as accurate.

Generally, worm bins don't need much water added, as moisture is produced by the decomposition process. Too much watering can cause problems with the bin. Water will force air out of the bedding, causing your bin to become smelly (and 'muddy'). The texture of the material in the bin should only be moist enough to produce a few drops of water when squeezed. Remember, the bottom of the bin is usually a lot wetter than the top areas. It may be necessary during hot weather to lightly spray to keep the surface moist if it is drying out too much. At some stage the worms bedding can be like 'mud'. There are a couple of ways to help make it a bit drier. Stir some dry shredded paper or chopped cardboard through the bedding ... this won't hurt the worms, but will help absorb the excess moisture. Or you can make some long 'sausages' by rolling several sheets of newspaper up. Bend these in half and stick into the bedding to absorb moisture. When they are wet, replace with more dry ones. Repeating this process will eventually soak out a lot of the moisture.

### Temperature

Lumbricus Rebellus will generally tolerate a temperature range of 10 degrees C (Worm breeding and feeding will be reduced under this temperature) and 24 degrees C. This temperature is taken in the bedding material (not outside temperature). Worms will die if they get too hot - moisture and ventilation can be used to lower the bin temperature if necessary. It is a good idea not to place your worm bin in the full sun, a nice shady area (especially in summer) will help maintain a more constant temperature.

### pH Level

Worms like to have their bedding at a neutral or very slightly acidic pH (6.5 is ideal). 6 would be the lowest level, and 7 the highest level. The pH of the bedding could be checked by the DOA. Controlling the pH in the bin doesn't often become a problem. Worms will tolerate a wide range without any trouble. Keeping either a whole eggshell, or some crushed eggshell in the bin at all times is usually enough to help the pH remain fairly stable. You can add a small handful of agricultural lime occasionally, but it is best not to interfere too much with 'Mother Nature' if possible.

### Aeration

The presence of air within the bedding is also an important issue in correct maintenance of your worm bin. Worms are living creatures, and they need to breathe air. Air is also important to the decomposition of any scraps placed in the bin. Without this vital air supply, 'anaerobic' microbes (those that don't need air to survive) will multiply causing a bad smell, which indicates toxic gases that will kill the worms. Gentle stirring of the top layer of the bedding allows any accumulated gases to escape from the bottom of the bin, as well as helping in the prevention of bedding compaction. This also fluffs up the bedding material, trapping air within.

## *Worm Feeding Tips*

| *Worms Like These Foods* | *Foods Not to Feed* |
|---|---|
| All fruits except the citrus fruits | Salty food & vinegar (e.g. Salted peanuts or crisps) |
| Vegetable scraps and peelings | Spicy food (e.g. Curry) |
| Table scraps | Onion and garlic |
| Bread & pizza scraps | Citrus fruits |
| Coffee grounds & tea leaves | Acidic foods such as pineapple and tomatoes |
| Crushed eggshells (help pH and calcium intake) | Meat & poultry (can attract flies and they smell) |
| Cooked Rice and Pasta Scraps | Dairy food & cereal |
| Ground Wheat or Corn (or flours) | Poultry manure (Gets very hot and contains too many ammonium compounds) |
| Aged Manure (Pig, sheep, horse, rabbit) | Manure from recently wormed animals as these will contain compounds that can kill worms |
| Small amounts of fresh manure | Cat and Dog Manure (May contain undesirable bacteria) |

Make sure you are feeding the worms well. A good combination of food waste (nitrogen) and shredded paper or cardboard etc (carbon) will ensure the microbial content is good, and the worms have plenty to eat (worms eat the microbes that are produced during the composting process).

Worms can process half their own weight each day. Thus, 1kg of worms will process 1/2kg of waste per day. However, this amount relates to conditions the worm bin is exposed to. For instance, in cooler weather, if the bins are outdoors, the processing rate can be slower. The amount of airflow in the bin is another factor that is important. It is best to get a 'feel' for your own worm bin. Watch the food you put in, and when it has nearly gone, you can put more in. Over time, the feeding rate will become faster as your worm population increases. Part of the bedding material will be included in the worm's diet as well.

Worms love to eat all types of food scraps (not meat, bones or dairy products, as these tend to smell and attract other unfavourable 'visitors' to the worm bin), some manure's, paper and cardboard or material from vacuum cleaner bags, turning it into nutrient rich compost (castings). These castings are used as fertilizer for any types of plants, as they are rich in nitrogen, phosphorous, calcium and potassium with a neutral pH. Worm castings are the richest form of natural fertilizer known to man. This will promote a higher than average growth in plants, and good, rich colouring for vegetables and flowers (ideal to start seedlings, when mixed with potting mix). The need for artificial fertilizers and chemicals is reduced dramatically by 'letting the worms do the work'. Worms will eat anything that was once living. They are masters of waste disposal. However, within the confines of a worm bin, it is recommended that several things be kept out of the system. Meat and dairy products can attract vermin and flies. They will cause bad smells due to putrification, so are best avoided. Too much citrus or onion can cause acidity (a small amount won't hurt). Spicy things such as curries should be kept out, as well as salty foods (potato crisps or salted peanuts). Scented things aren't good to use either.

Unfortunately, annoying flies are attracted to fruit and vegetable waste, particularly during warmer weather. Keeping your food waste covered at all times will help control them. Use a good layer of damp shredded paper on top of the bin, tucked right up against the sides of the bin (replace regularly). Flies don't like to bury to lay eggs.

A worm bin doesn't normally smell at all. It usually has a nice earthy, rainforest smell when operating correctly. If you notice a bad smell, it is an indication that something is wrong. Overfeeding the worms can cause a smell ... if this happens, take out the unprocessed food and turn the bedding lightly to let some air back into the bedding. Resume feeding when the smell has gone. A small handful of AGRICULTURAL lime sprinkled over the surface will help sweeten the bedding again.

Anaerobic conditions (no air) are usually a combination of too much waste and too much water. Using chopped straw as part of the bedding will help keep air pockets open in the bedding, and assist drainage.
Rotate the location of feeding each time. Dividing the bin into imaginary segments (three or four) and moving in a circular pattern, gives the worms time to finish off each section. Never put 'dry' ingredients into your worm bin. Spray flours etc with cool boiled water (boiled water eliminates chlorine and fluoride) Chop scraps roughly in the blender, or break into small pieces before aging. This will allow worms to process food more quickly. 'Age' scraps for at least a few days before feeding (outside in a container with a few drainage holes in the bottom and air holes in sides, with a tight lid), as worms feed on bacteria and this ensures bacteria are in abundance. Stir occasionally to add air. Keep half an eggshell in the worm bin at all times. This helps balance the pH of the bin, and avoid calcium deficiency in the worms. Burying food scraps under some of the bedding can be a help in preventing insect infestation. Keeping the surface covered with a damp newspaper or hessian also helps. A light sprinkling (about a 1/2 level dessertspoon) of garden (agricultural) lime once a week helps keep the pH of the bedding at a neutral level, so the worms do their work well. Don't forget to spray lightly to moisten and be careful not to use too much!

After the worms have lived in their bedding for 2 - 3 months, you will notice that the bedding material has changed to a loamy consistency, and even though the worms have been fed a considerable amount, the level of the bedding will have visibly dropped. To encourage the healthy reproduction of the worms, and to have a good mixture of castings and vermicompost, now is the time to harvest the worms.

### Methods to harvest worms

Small worms are usually a signal that the worm bin is becoming overcrowded. The remedy for this is to divide the worm population, placing half into another bin, or giving some away.

You could find that there is a quantity of tiny white worms on the food in your bin. These could be mistaken for baby worms, but they are actually Enchytraeids. They are also called 'Potworms' or 'White Worms'. These worms will not harm your worms, and are actually composters too. Their presence could indicate that the worm bin is slightly acidic. If you find their numbers annoying, place melon skins or bread soaked in milk on the surface of the bin, then lift out when covered in the white worms and dispose of them. Repeating this procedure several times will at least reduce the population.

*Harvesting method 1:*
Move the bedding in the bin over to one side, and fill the empty side with fresh bedding. Put new feed into the side with the new bedding, and gradually the worms will migrate to this side. Leave the old bedding for about a month to allow new capsules to hatch, and then remove compost. Some more fresh bedding can then be added.

*Harvesting method 2:*
Prepare the new bedding for the worms to be moved into. Empty the contents of your bin onto a sheet of plastic on a table or bench. Pile bedding into mounds (you can have one large one, or several small ones, whichever is easiest). Place a bright light above the mounds (can be done in sunlight, but don't expose the worms too long - sunlight can kill them very quickly!). The worms will quickly move away from the light source, burying down to the bottom of the pile.

Leave for 10 - 15 minutes, then scrape the bedding off the top of the pile. Repeat this procedure till you find the worms all huddled together at the bottom. In their efforts to hide underneath each other, very little bedding material will be left, just leaving a pile of worms. Place the worms into their new bedding without delay. You can quickly use this method, if you have a few mounds by the time you finish the last one, it is time to start the first again.

*Harvesting method 3:*
A sifting method can also be used to harvest the worms. Worms and bedding can be sifted through a coarse screen. Castings will fall through the mesh, while the worms stay behind. You need to work quickly, using a gentle shaking motion, before the worms get a chance to wriggle down through the wire. There are also special harvesters available that work in a similar way. These are mainly used in large worm farms, where large amounts of worms need to be harvested quickly.

Remember, the compost you remove from the bin will probably still contain capsules (eggs), so if you want to keep these, to build up your worm population, this can be used to start another bed or returned to the old bed and combined with fresh bedding.

## Farming methods

Farmers and others will benefit from several advantages of this method:

- It is simple; no special training is required.
- Low, low, low start-up costs - it uses existing equipment and available space.
- No turning, no odors - the worms do all the processing, naturally.
- The resulting vermicompost, rich in worm castings, is more valuable to farmers and home gardeners than raw manure. It provides stable organic matter, conserves moisture, improves soil conditions in many ways, and enhances the growth and yields of most types of plants.

*Step 1: Windrow preparation*
A windrow is a long row of material (e.g. 4 to 10 feet wide, by 2 - 3 feet high, by some appropriate length). The length can vary depending on the availability of gently sloping space, ease of material handling, or other factors. Longer windrows will cost a little more for supplies.

To start a windrow, spread a 12 to 18 inch layer of manure solids, with or without bedding, along one end of your available space. Inoculate the windrow with high-quality worms. Add 2 to 3 inch layers of manure every week (3 to 6 inch layers in colder weather) to gradually increase the depth of the windrow. Each windrow should be large enough to handle these thin layers of material each week. With a thermometer, make sure that the layers of feed do not get hotter than 35 degrees C (~95 F).
Remember the following:

- This plan is for farm-scale volumes of manure. Larger volumes can help protect the worms from adverse conditions and predators. Enclosed bins are still recommended for home or school-based vermicomposting.
- A hard or concrete surface is easier to work on, especially in wet weather, and may even be required to control runoff.
- As you extend the windrow, leave a way to reach the finished castings.
- This method does not generate high heat. This is acceptable for many types of dairy or horse manure. If heat treatment is needed to control pathogens or weeds, simply pre-compost the material before feeding to the worms.

*Step 2: Extending the windrow*
After the first windrow is established and layered to around 2 to 3 feet thick, it is time to extend the windrow. Add the next layers of manure along one side, directly next to and against, the first windrow. The worms in the first pile will gradually migrate toward the fresher feed. Continue adding the fresh manure alongside until you have formed a second complete windrow. Repeat this step, extending the number of windrows to the limits of your need or space. The worms will continue migrating laterally through the windrows, leaving rich vermicompost in their wake.

*Step 3: Making quality castings*
Worms tolerate a range of environmental conditions before suffering serious losses. Nonetheless, providing optimum conditions for worm health and growth can assure maximum decomposition and transformation of organic wastes. Researchers in the United Kingdom identified the following optimum conditions for worms:

- Temperature: 15 - 20 degrees C (60 - 70 degrees F)
- Moisture content: 80 to 90%.
- Oxygen requirement: aerobicity
- pH: > 5 and < 9

Keep the worms well fed and comfortable, and they'll make quality castings in the decomposed manure/bedding. Their active burrowing habits naturally aerate the windrows, providing good control of odours. Leaving each windrow for a little longer time before harvesting assures the vermicompost will be more broken down, more stable, and have more worm castings present.

*Step 4: Moisture and irrigation*
Moisture is also critical to the well being of your working worms. A simple method of applying moisture on a farm is through a sprinkling hose or other sprinkling/misting irrigation system. Run it the length of your windrow. Try to moisten evenly, i.e. keep the surface moist, but don't let the bottom become soggy.

*Step 5: Windrow cover*
A suitable compost cover, placed over the active windrow, is critical to preserving valuable nutrients in the vermicompost. Rather than nutrients leaching out and possibly contaminating ground or surface waters, they should be retained in the vermicompost in ways that are valuable for plants. Various types or tarps or fabrics could be used to shed excess rainfall and prevent leaching, while maintaining aerobic conditions.

Covering the windrows of finished castings prior to use also retains nutrients and helps prevent weeds from spreading.

*Step 6: Harvesting*
Because the worms concentrate in the freshest, most active windrow, after 2 - 6 months the first windrow and each subsequent windrow will become ready to use. It can be spread with a loader or manure spreader. Coarse material, if any, can be screened out to produce a fine, marketable soil amendment.

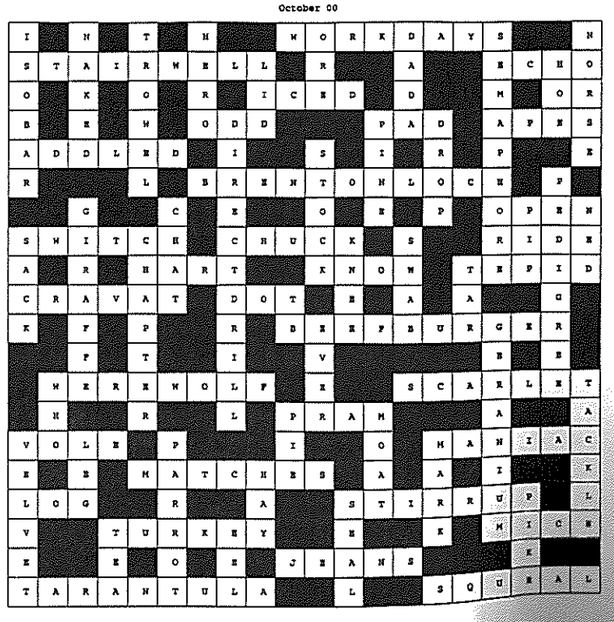
## MADE IT MYSELF

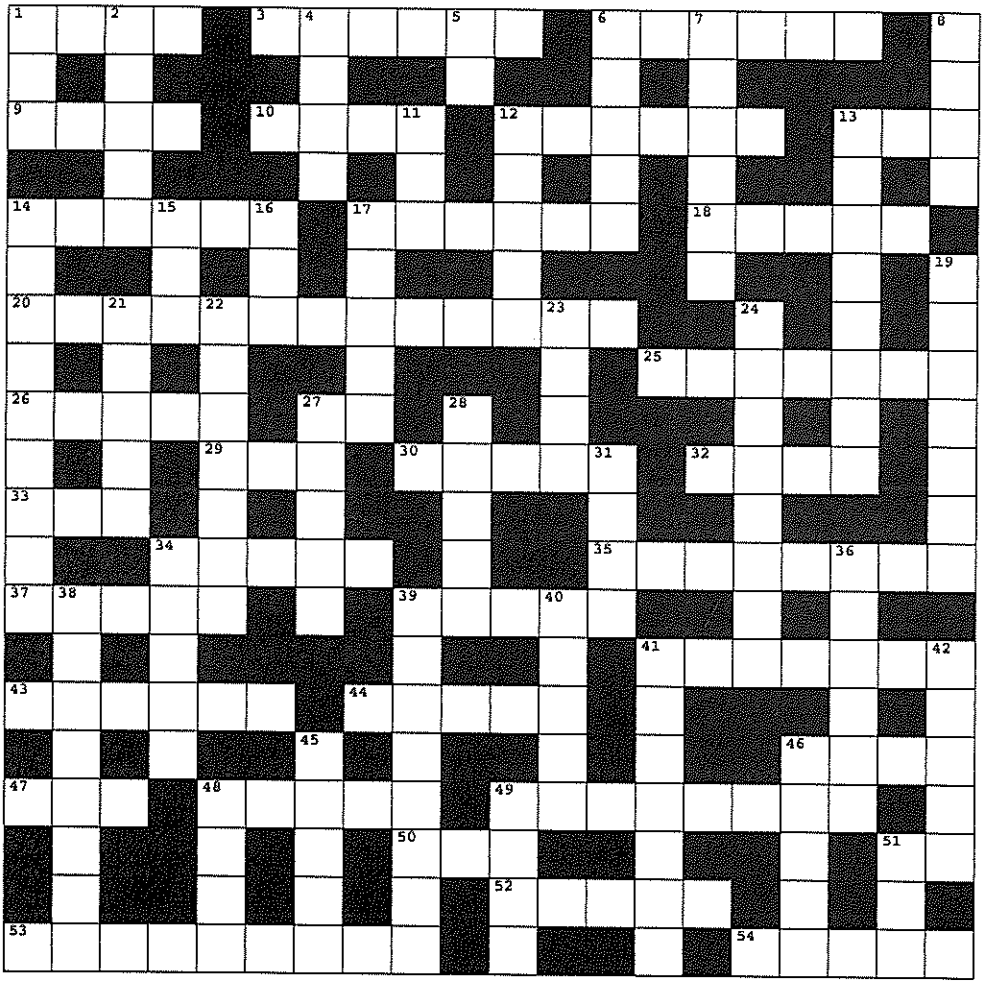
The Department of Agriculture prescribe to a publication called 'Practical Farm Ideas'. The editor Mr Mike Donovan has asked me if there is any farmer in the Falklands who would like to have ago at *"made it my self"* article with photograph or scetches if possible to include in his publication. (Help can be arranged in writing the article).

I have quite often in the past published some of the ideas from the magazine and if you think you could contribute to Mr Donovan then please get intouch either to me or direct on his web site: farmideas.co.uk If you have not seen the magazine and would like to have a look at what farm ideas there could be I would be glad to send you a copy on loan.

There has to be some really good ideas that have been passed over the years from one farm to another. Please put your thinking cap on and lets see your article published in a farming magazine in the UK. Ideas such as making a hitch up to tractors to using a goose wing as a brush are just some examples that could be included.

## ANSWERS TO LAST MONTH'S CROSSWORD





ACROSS

1. SEA HEN
3. PIG FEEDING CONTAINER
6. LIQUID CONTAINER
9. FLOOR OF A SHIP
10. FLAT BOTTOMED BOAT
12. CREEPY CRAWLY
13. FISHING IMPLEMENT
14. NON METALLIC DIAMOND ELEMENT
17. WEST PORT
18. LARGE ANTELOPE
20. NEW FARMERS ASSOCIATION
25. OF THE HEART
26. FETCH
27. NEXT TO
29. ONE
30. OYSTER GEM
32. GO ON BY
33. BEER
34. LONG SEAT
35. ILLEGAL PASSENGER
37. FALKLAND ISLANDS FOUNDER
39. 669,805 OF THEM AT 31ST MAY 2000
41. THE QUEEN'S FAMILY
43. PEANUTS DOG
44. SENT BY FACSIMILE
46. POOR MAN'S SALMON
47. NORTH LIMB?
48. TAKE WOOL OFF A SHEEP
49. UNDERGROUND EDIBLE FUNGI
50. ROWING TOOL
51. NOT OFF
52. GOT TARGET IN SIGHT
53. LARGE SEA BIRD
54. PALE

DOWN

1. SQUARE OF PEAT
2. OPEN SORE
4. SIDE OF RIBS
5. GENETICALLY MODIFIED
6. MIX
7. BOAT STEERING STICK
8. FLYING TOY
11. WHAT PERSON?
12. PIECE OF GRASS
13. LAST DECADE
14. VERY STIFF PAPER
15. CONSTRICTING SNAKE
16. FOUNTAIN PEN TIP
17. SLED DOG
19. LITTLE SALTY FISH
21. LIFT
22. NITROGEN FIXERS
23. HEAVENLY BODY
24. NEW YORK THEATRE STREET
27. FLOG A TREE?
28. FURRY SKINNED FRUIT
31. SPEACH DEFECT
34. NORTH AMERICAN BOVINE
36. TUSKED SEAL LIKE MAMMAL
38. NOT USUAL
39. HOUSE BIRDS?
40. DOWNY DUCK
41. UNTIDY FEATHERS
42. LONG FOR
45. GREETING
46. WATER FROM EYES
48. EJECT SALIVA
49. ANIMAL CATCHER
51. DEDICATED LYRICAL POEM

# The Wool Press

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# EDITORIAL PAGE

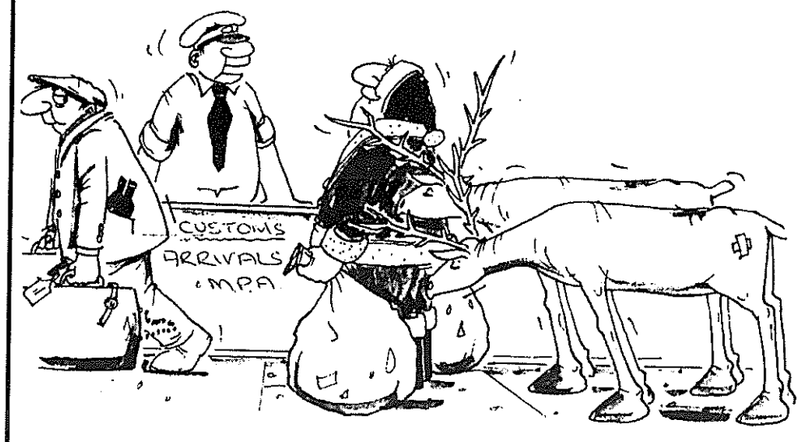
**Editor:**
***Charlene Rowland***

Christmas is almost upon us again. It seems to me that you just get one Christmas out of the way and the next is here before you can say "Millennium"! Well, I hope you all have a wonderful Christmas and a well earned holiday.

I am trying to get a list of all e.mail addresses to enable DoA and FIDB to get any relevant information to you quicker than by postal mail. If its not in the telephone book please let me know your e.mail address.

As an idea, the DoA and FIDB are in consultation with Penguin News regarding a new look for the Wool Press. The new look comprises of an (A3) 4 page pull out in the Penguin News fortnightly with newsy issues, a more intense scientific and informative Wool Press every two months in the usual way. This idea came about due to getting information out to Camp and Stanley residents much more frequent than just once a month. I would be very interested in your views and ideas before we start this process in the New Year, providing the majority is in agreement.

*Staff:* No new staff this month. Bob Reid is on holiday in Australia until 10th January 2001. Please remember that DoA and FIDB Officers are on holiday for the period 25th December to 2nd January 2001, but a Veterinary Officer will be available by calling the Veterinary Office answer telephone who will tell you the relevant Officer '*on call*'.




'. . . and you still reckon you've got nothing to declare, Sir . . .?'

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Common Injuries of Horses.
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More Lamb Trial Results & Preliminary Results—Lamb Taste Panel
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Controlling Garden Weeds & Pests the 'Natural' Way & Liming Falkland Soils for Long Term Pasture Improvements
*By Aidan Kerr*

*...and much more!*



## PRELIMINARY RESULTS – LAMB TASTE PANELS

For those of you who have participated in the lamb taste panels so far, here is the first summary of what you thought.

*Morning session;*

| Sample # | Number and breed | | Tender | Juicy | Mean Flavour | Overall | Mutton rating |
|---|---|---|---|---|---|---|---|
| 1 | 699 | Polwarth | 6.6 | 6.0 | 5.5 | 6.0 | 0.5 |
| 2 | 110 | Polwarth | 5.0 | 5.2 | 5.3 | 5.3 | 0.3 |
| 3 | 266 | Suffolk | 6.6 | 6.2 | 6.0 | 6.0 | 0.4 |
| 4 | 595 | Texel | 5.9 | 5.9 | 5.9 | 6.0 | 0.6 |
| 5 | 187 | Corrie/Cormo | 6.0 | 5.8 | 6.0 | 5.9 | 0.4 |
| 6 | 102 | Polwarth | 6.2 | 5.6 | 5.6 | 5.8 | 0.5 |
| 7 | 5295 | Jacob | 3.6 | 3.6 | 4.4 | 4.2 | -0.3 |
| 8 | Mutton | Mutton | 6.0 | 5.6 | 5.5 | 5.6 | 0.3 |

*Afternoon session;*

| Sample # | Number and breed | | Tender | Juicy | Mean Flavour | Overall | Mutton rating |
|---|---|---|---|---|---|---|---|
| 1 | 266 | Suffolk | 5.3 | 4.9 | 5.4 | 5.5 | 0.4 |
| 2 | Mutton | Mutton | 5.0 | 4.9 | 4.6 | 5.0 | -0.4 |
| 3 | 234 | Polwarth | 5.1 | 5.0 | 5.7 | 5.7 | 0.1 |
| 4 | 193 | Corrie/Cormo | 4.5 | 4.6 | 5.0 | 5.0 | -0.4 |
| 5 | 249 | Corrie/Cormo | 7.2 | 6.7 | 6.5 | 6.6 | 0.6 |
| 6 | 595 | Texel | 6.3 | 6.3 | 6.2 | 6.2 | 0.4 |
| 7 | Tough | Beef | 2.6 | 3.5 | 3.6 | 3.4 | -0.6 |
| 8 | 5295 | Jacob | 7.5 | 6.4 | 6.8 | 6.7 | 0.6 |

*Explanations:*

1. The x placed on the line was converted to a measurement. Since the line was 10 cm long, the position of the x was thus a certain distance from the left. A result of 5 thus equates to a position half-way along the line. Thus the greater the value in the tables above, the higher the score for that trait.

2. The mutton rating is based on your answer to the question "Is this better, worse or the as good as mutton?" If worse, then –1 was assigned as the numerical response, if the same, then 0 was recorded, and if better, then 1 was recorded. Thus, for samples with a value greater than 0, the trend was a preference for lamb over mutton, and if negative, a preference for mutton over lamb.

3. As you can see, there were some differences, particularly for the same samples between the morning and afternoon sessions (Jacob 5295!). The afternoon Jacob test was probably biased since the sample immediately preceding it was very tough and we may have over-valued the Jacob when it was eaten next.

4. These numbers need to be grouped further so we can do some statistics on them, so I'll keep you informed. Also, another round of testing needs to be done to get some more figures for texels, dorsets, jacobs and corriedales, which so far are underrepresented in the results so far.

**5. The conclusions will be revealed later!!**

## ATTENTION ALL ARTS AND CRAFTWORK PRODUCERS:

As you may know, FIDC are currently involved in the development of the new Visitor Centre in Stanley. In line with the cultural aims of the Centre, we hope to devote a section of the display area to Falklands arts and crafts. In particular, we want to explain the history of the crafts produced here, and the methods involved at each stage of production. There will also be an opportunity for you to promote your wares.

We would appreciate it if all arts and craftwork producers could contact us with regard to a display in the Centre.

***Thank you.***

*Emma Jane McAdam*
Falkland Islands
Tourist Board

Tel: 27211, Fax: 27210,
**E-mail:**
sayre@fidc.co.fk

***A snippet which was sent to Jim Lewis of Stanley from a friend in UK.***

## JUST FANCY THAT.....

The Falkland Islands may soon be the first country in the world to be able to guarantee that all its agricultural products are farmed using sustainable organic methods. The cool maritime climate make it unnecessary for farmers to use pesticides.

## COMMON INJURIES OF HORSES

***(By Cameron Bell)***

The horse season is almost upon us again. It is one of the busiest times for the Veterinary Service. The following outlines the two groups of common injuries seen:

1. **Lameness**

The foot of any lame horse should be examined as 95% of all lamenesses result from problems in the foot (unless there is an obvious cause). Pick the hoof out with a hoof knife and examine for puncture wounds or foreign objects.

***Infection***

- The commonest foot problem is a hoof abscess. Penetrating wounds normally cause these build-ups of pus. Dig out the puncture wound to allow drainage of pus. A hot poultice or soaking in Epsom salts can also assist in drawing out pus.
- A course of penicillin injections is advised.

***'Sporting injuries'***

- Sprains/strains of joints or tendons will often result in swellings along any part of the leg, although sometimes these are subtle.
- No penetrating wound or draining pus, but a puffy swelling, normally distinguishes these from infections.
- Hosing the affected site with cold water or standing the horse in cold water is advisable within the first 24 hours after the injury to reduce swelling.
- Anti-inflammatory treatment, e.g. phenylbutazone powder, is often required to reduce swelling.

2. **Wounds**

- Wounds that result in a break in the skin should be cleaned up by using antiseptic spray or antiseptic solution /salt water.
- Leg wounds, particularly to the lower leg, are generally not stitched up, whilst wounds elsewhere can be, depending on their size.
- Often horses produce exaggerated responses to wound healing, resulting in '**proud flesh**'. The Veterinary Service can provide certain medications and advice to minimise this.
- Depending on the size of wound and level of contamination, penicillin may be required.

In summary, check paddocks where horses are being held, particularly in Stanley, for any objects that could cause injury. If you have a few horses, it probably pays to have some penicillin, phenylbutazone sachets and antiseptic spray on-hand so that basic first aid can be provided.

## SOIL SURVERYOR VISIT

***Jim Cruickshank from Queen's University Belfast will be visiting the Islands from January 4th to 24th, 2001. Jim has over thirty years experience as a soil surveyor and scientist in Northern Ireland and many other similar countries. The general purpose of his visit is to assess how a soil survey could contribute to the development of farm soils for improved pastures and crops.***

***Aidan Kerr will show him around the Islands so that he can inspect and sample the range of soils and environments here. If any farmer would like them to specifically visit then please contact Aidan on 27355 ASAP.***

# "BRANDING" FALKLANDS' PRODUCE

*(by James King)*

"What is this project about?" and "What stage has it reached?" are two questions being asked about the branding project. In answer to the first of these, the project aims to create a Falklands quality mark that can be used to help sell Falklands products and services around the world. In answer to the second, the project is at the first stage of development.

The project arose because of the continued long term slump in wool prices. While revenues from the fishery produce a healthy income for the islands, there is a need to broaden the islands' economic base into other profitable activities. The key issue is: What can the islands produce (products or services) that can be sold for a premium price that more than compensates for the Falklands' distance from markets?

The answer is far from simple. At one stage it looked as if the move into organics would be enough to create these high value products but thanks to the explosion in world supply of organics and the subsequent fall in prices – which has seen one UK supermarket chain already selling organic produce for the same price as ordinary non-organic produce – organic products *by themselves* are not the solution. With demand for organic produce forecast to continue growing fast, two things are likely to happen:

a) With a growth in choice organic produce buyers will start to seek out the *better quality* organic products from the rest. (e.g. If there are three organic apples on the shelf, the buyer will buy the one that tastes best).
b) Buyers will also start to question the *credentials* of organic producers. There is already some evidence that buyers are a little disbelieving of some producers' organic claims in situations where that producer comes from a country that has a general reputation of not being "clean and green".

All this creates the opportunity for the Falklands to make the claim that it is aiming to be the "cleanest and greenest" country in the world. If adopted, this claim will provide a hugely powerful platform from which to develop and sell Falklands produce into narrow high value market sectors worldwide. In saying "we are the best" in absolute terms we are saying to the world "come and take a look, try our products and services, you won't be disappointed". It opens up new opportunities for farmers and businesses throughout the islands to not only produce new products but also become more involved in the value-adding activities of further-processing, packaging, sales and distribution.

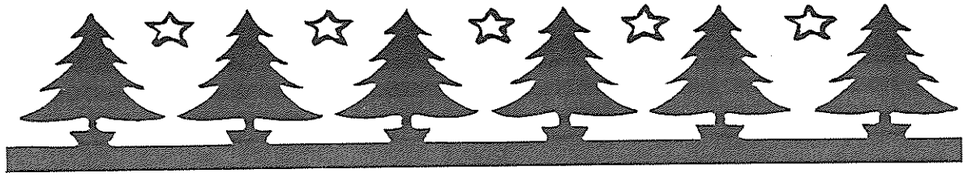
It also creates the opportunity for a new Falklands branding device to be used to distinguish the very best quality products produced in the islands. Just as France and New Zealand have created quality marks and pushed these around the world, so too could the Falklands. This is where the advantage of "cleanest and greenest" comes in. Without the marketing budgets of these two countries our claim to be the absolute cleanest and greenest will provide a steady stream of free publicity as journalists explore the claim and measure others against Falkland standards.

All this does not come without a price. That price is the support of everyone who lives in the islands. Why? Because to make it believable the Falklands need to do all of the following

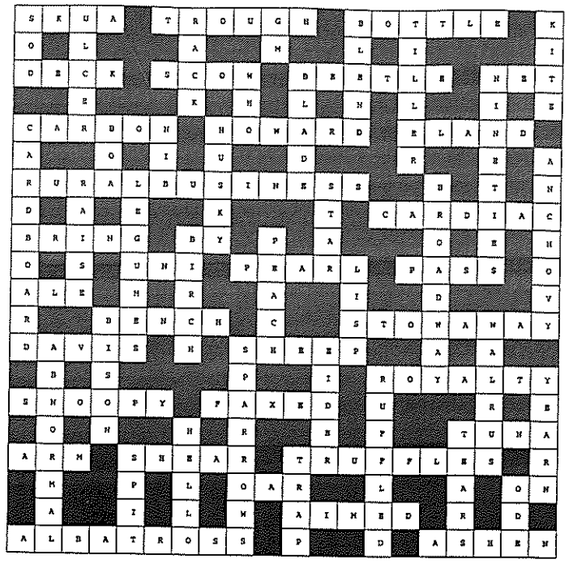
- Diversify agriculture into new products
- Progress organic certification
- Maintain the sustainable fishery
- Add more value to products within the Falklands
- Develop the tourism business sensitively
- Manage the environment very carefully
- Find ways of living clean and green
- Attach the brand device to products that the buyer is willing to pay a premium for
- Promote this device into the most important "niche" market sectors for Falklands products

The feedback from the Falklands Forum in London and other market research has told us that buyers are strongly supportive of this initiative. They see a real sales advantage for the Falklands if this claim can be supported.

The project is also strongly supported throughout the islands. It will, however, be some time before we say to the world in general that we are aiming to become the cleanest and greenest country in the world. This is because agricultural diversification needs to be much more advanced than it is at the moment, so that when we do make the announcement, there is a stream of products ready to benefit from the publicity. Design work on the branding device has just started, as this scheme is not dependent on the cleanest and greenest announcement. The brand device and the rules governing its use will be ready around February 2001.



## Last months Answers to the crossword



## ABATTOIR OPERATIONS MANAGER

Brian Corner will be joining FIDC as Abattoir Operations Manager in December 2000. Initially, Brian will be working in the UK conducting a programme of visits to suppliers, potential customers and organic specialists prior to coming to the Falkland Islands in early January 2001. Brian will be accompanied by his wife Sandra, and has three adult daughters: Lynn, Julie and Sandra, who will remain in England.

Brian started work as a 15-year-old in the Glasgow Municipal Abattoir and worked his way up to Plant Manager. Since then Brian has worked in Egypt as part of a team setting up a new abattoir in Ismailia, and has set up his own business as a family and catering butcher in Glasgow. In Brian's own words he "missed the buzz surrounding the industry" and moved to London as Abattoir Manager and then General Manager of a Kosher abattoir serving beef and lamb to the Jewish community in London. Later he accepted the position as General Manager of an abattoir in Nottingham.

Both Brian and Sandra are excited at the prospect of moving to the Falklands and are looking forward to meeting the people here. Brian enjoys gardening and fishing and both he and Sandra are looking forward to exploring the Islands.

More from Brian once he has settled into his new job.

## LOTUS NEWS

*(By Bob Reid)*

A recently completed pot trial conducted in the Department of Agriculture glasshouse has confirmed Lotus to be one of the best pasture plants for the islands. The trial was designed to measure the amounts of phosphate fertilizer and calcified seaweed that would be required to get the plants to grow productively. In the absence of both the seedlings hardly grow at all but the addition of 2 tons of calcified seaweed and 7.5 kgs of phosphate per hectare growth was rapid and yields good.

Whilst the phosphate response was excellent it was something of a surprise to find the Lotus plants grew well with only calcified seaweed added. This indicates that significant improvement can be made to pasture by using this locally sourced product.

An added feature of Lotus which will facilitate its uptake by farmers is the fact that whilst it is palatable to sheep and cattle it is not so to geese. It appears that the slightly hairy leaf and the high tannin content do not appear to a goose palate. This means that an establishing pasture will develop normally without the need for a farmer to destroy large numbers of geese.

Finally analytical work in Australia and New Zealand has shown that Lotus has anthelmintic properties. In Layman's Terms that is saying Lotus leaves contain something, probably Tannin, that reduces that numbers of stomach worms. If so, Falkland farmers will be able to reduce the amount of drench they need to keep the flocks healthy.

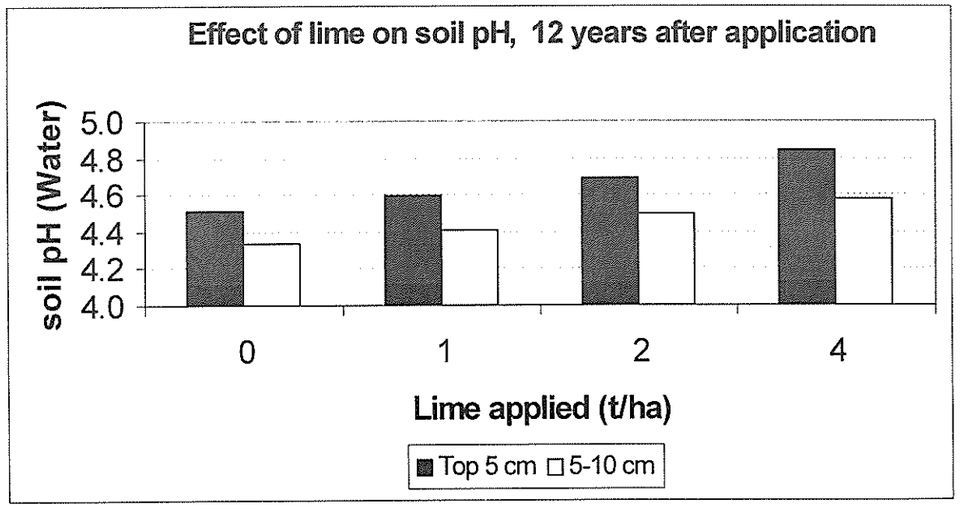
## LIMING FALKLAND SOILS FOR LONG TERM PASTURE IMPROVEMENTS.

*By Aidan Kerr*

Much has been talked about the potential benefits of applying liming material e.g. calcified seaweed, to establish improved pastures containing legumes. Recent trials in small plots at Brenton Loch and in pots in our greenhouse have demonstrated the positive short term effects of applying calcified seaweed (c. 30% calcium) and lime (c.100% calcium). However the effects over longer periods have not yet been assessed. This article shows two examples where lime is still producing beneficial effects over 14 years after it was applied. Both examples are at the old experimental site near Fitzroy Bridge.

I reported the first example in Wool Press in September 1998 but it is worth repeating. Lime was applied to clover plots in 1986. In 1998 33% of the plots which had been limed then still had clover present and growing well. There were no clover plants on any of the unlimed plots. Clover was present on plots which did not get any phosphate or received a low level (30 kg P/ha as triple super phosphate) but only where it was combined with 2-4 tonne/ha of lime.

The better survival of clover on the limed plots was probably due to the favourable effect of the lime on soil acidity. In 1988 lime had increased soil pH by up to 0.7 of a pH unit thus reducing acidity. The graph below shows that 12 years later in 1998 soil pH was still higher where lime was applied, but the beneficial effect was reduced to only a 0.3 unit increase in pH.




The second example is from an 1984-85 trial at the same site. The aim of the trial was to find out which types of fertilisers were needed to establish a new grass reseed. Lime, phosphate, potash and nitrogen fertilisers were applied in 1984. In 1985 the ARC team, of which I was a member, concluded that the grass had responded only to the nitrogen fertiliser. There was no obvious effect of lime on grass growth then.

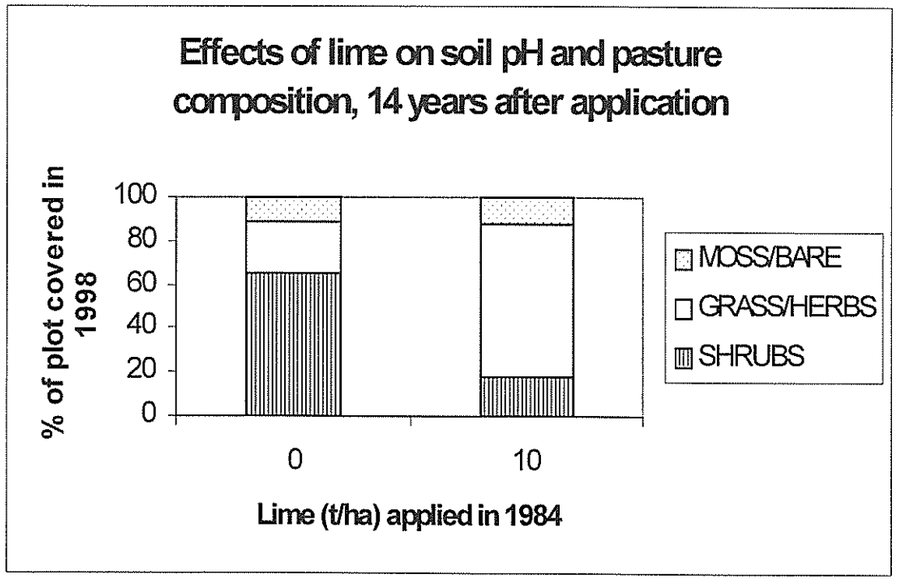
Since then the fenced trial area was mown regularly and managed well until 1988 when it was abandoned. For most of the next ten years the site was not mown, grazed or fertilised. Consequently Christmas Bush and many other native plants regrew over most of the plots except those which had been limed.

I noticed the effect in 1998 when the photograph shown opposite was taken. It shows me sampling soil on a grassy (limed) plot surrounded mainly by Christmas Bush on the unlimed areas. This effect was very obvious on all four limed plots.

The effect of lime on reseeded pasture 14 years after application

10 t/ha lime applied in 1984 No lime applied

I compared the composition of the limed and unlimed pastures in more detail and Gordon Lennie analysed the pH of the soil samples. 70% of the area in the limed plots (see graph below) was still covered by some of the original grasses with some native herbs, but 65% of the area in the unlimed plots was covered by shrubs, mainly the undesirable Christmas Bush. The less acidic (higher pH) soil in the limed plots probably encouraged a grassier pasture and kept out the unwanted shrubs. A 5.2 pH is close to the 5.3 optimum for grass pastures recommended for peat soils. Christmas Bush was




| Depth | Soil pH, 1998: | |
|---|---|---|
| 0 - 5 cm | 4.2 | 5.2 |
| 5 - 10 cm | 4.0 | 4.8 |

This long term positive benefit of lime is important for all those developing improved pastures now and in the future. Such benefits to pasture (and eventually to livestock) production cannot be measured solely over a few years but are best monitored over decades. The results also show the importance of maintaining a long term, continuous and consistent programs of research and development in pastures and agriculture in general.

# MORE LAMB TRIAL RESULTS

*By Sean Miller*

As promised, here are some more details from the lamb trial that has been up and running during winter this year.

**The raw data**

The following table shows how the sheep performed from the time they arrived at Brenton Loch until the time they were slaughtered.

Now, some caution has to be expressed when looking at these numbers as they don't really tell us how well the sheep grew. Because the different groups weighed different amounts when they first arrived, some reached slaughter earlier, not because they grew faster, but because they were closer to slaughter weights when they started.

A better comparison of the potential of the animals to grow on to reach a selected slaughter rate is by looking at the maximum growth rates these animals achieved during the time they were with us. Those rates are in the graph below.

Muscle pH is related to meat tenderness. As long as it's below 5.8, the meat is sure to be tender. pH is affected by pre-slaughter stress

These are the important measurements for the MOD market

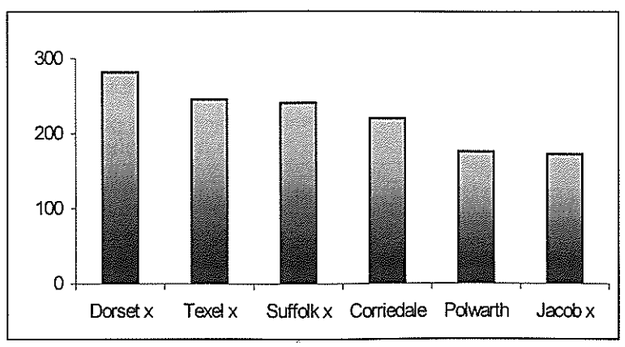
| | Arrival Weight (kg) | Slaughter Weight (kg) | Carcass Weight (kg) | Mean slaughter date | GR Depth (mm) | Leg weight (kg) | Eye muscle area ($mm^2$) | Muscle pH (loin) | Growth rate (g/day) |
|---|---|---|---|---|---|---|---|---|---|
| Hope Cottage | 29.6 | 35.9 | 16.8 | 2 October | 8 | 2.4 | 12.2 | 5.66 | 140 |
| Fitzroy | | | | | | | | | |
| Dorset x | 25.8 | 40.6 | 18.2 | 5 September | 8 | 2.3 | 12.2 | 5.78 | 122 |
| Texel x | 26.3 | 41.3 | 18.2 | 1 September | 10 | 2.4 | 12.5 | 5.74 | 125 |
| Smylies | 25.0 | 39.0 | 18.3 | 5 September | 12 | 2.3 | 12.7 | 5.78 | 119 |
| Salvador | 29.6 | 37.2 | 16.4 | 5 October | 7 | 2.3 | 11.5 | 5.63 | 166 |
| Sussex | 21.9 | 38.9 | 17.9 | 21 September | 12 | 2.4 | 12.2 | 5.66 | 108 |
| Bleaker | 31.1 | 43.3 | 20.4 | 26 August | 14 | 2.6 | 12.3 | 5.77 | 104 |
| Little Chatres | 26.0 | 43.5 | 19.0 | 31 August | 11 | 2.3 | 12.9 | 5.71 | 141 |
| Estancia | | | | | | | | | |
| Texel x | 26.3 | 38.0 | 17.5 | 15 September | 10 | 2.3 | 12.2 | 5.71 | 85 |
| Suffolk x | 25.4 | 39.1 | 17.9 | 8 September | 10 | 2.4 | 13.0 | 5.86 | 104 |
| Golding/Peaks | 17.3 | 35.3 | 16.4 | 22 September | 9 | 2.2 | 11.6 | 5.65 | 123 |
| Head of the Bay | 25.2 | 39.2 | 18.1 | 11 September | 12 | 2.3 | 12.0 | 5.79 | 104 |
| West Lagoons | 21.1 | 34.9 | 16.2 | 9 October | 10 | 2.2 | 11.4 | 5.66 | 85 |
| Horseshoe Bay | 21.7 | 39.1 | 18.7 | 12 September | 13 | 2.3 | 12.3 | 5.76 | 126 |

Eye muscle area is the size of the large muscle inside the 12th rib chop. Bigger eye muscles look better on supermarket shelves!

**Breed comparisons**

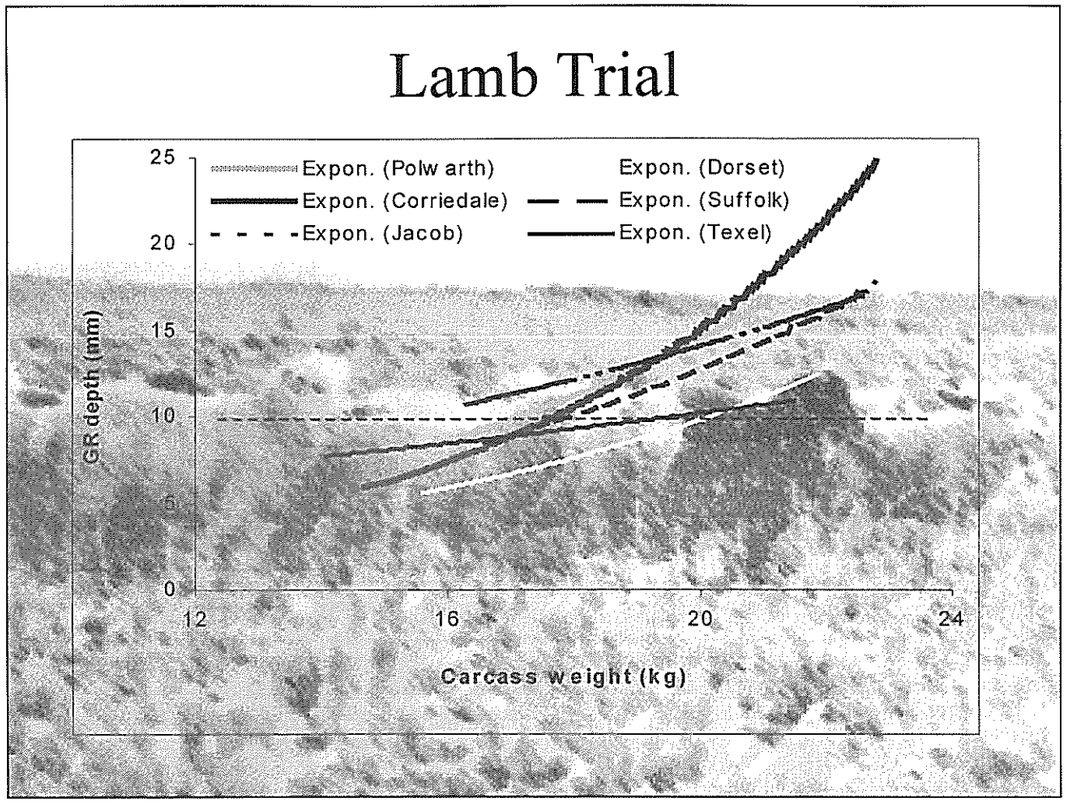
Some of these results have been shown in the last couple of Wool Press articles but they are worth showing again.

*Growth rates*




The peak growth rates shown here tell a story about the time it takes to 'finish' the lambs. The meat breeds clearly put on weight faster than the wool types. In the meat breeds much more of the feeding effort goes into developing body muscle, whereas relatively more effort is placed in growing wool by the wool breeds.

The result was that for these animals to put on 15 kg whilst eating these forage crops, we could expect Dorsets to take about 53 days, Texels and Suffolks about 61, Corriedales 68, and the Polwarths and Jacobs about 85 days




The purpose of the trial was to determine what characteristics carcasses from each of the different breeds, that are already here in the Islands, have when the lambs are 'fed to finish' at a range of slaughter weights. This gives us information from which to select and achieve targets when a market specifies what it wants. For example, the following graph is what we've been able to put together from the lambs we slaughtered over winter.

What you can see is that for each different breed, as the animal gains weight it develops fat reserves at different rates; animals such as Jacobs, Corriedales and Suffolks put on fat sooner (at lighter weights) and at a faster rate than do highly selected meat animals such as Texels and Dorsets.

These curves can be used to predict liveweight targets at which to slaughter animals from each breed in order to match a market (carcass) specification.

**The proof is in the eating?**

So far we've conducted a couple of taste panel sessions with staff in the Department. The principle behind these sessions is to determine whether differences in taste, tenderness, and juiciness are detectable between meat samples from different animals, and different breeds. To do this, we cook several pieces of meat from different animals and present them unidentified to the tasters. They then judge the samples on 4 criteria; tenderness, juiciness, flavour, and an overall liking. We also asked them if they preferred the meat to mutton.

The results of these first sessions show that the taste panels could not detect any differences in flavour, juiciness or in their overall liking between breeds. In other words, all breeds tasted the same. Some samples were more tender than others, but it is too early yet to assign this to breed as we need to include some more samples from some of the breeds in another round of taste panel sessions.

We'll have more of these results in the next couple of months.

**Using the forage crops**

The first thing to relate is that the forage crops provided excellent feed for these animals all the way through winter.

One note of caution however, is the possibility of calcium deficiencies becoming apparent during long term feeding (4 months +). Some lambs began to develop crooked and fragile leg bones, and many had lost their lower lambs' teeth (prematurely) as they approached slaughter. In itself, the loss of teeth is not a great concern as long as they remain on abundant, high quality feed, and they are nearing the eruption of their permanent teeth. However for mature ewes, particular care should be taken in choosing which forage crop to use, and for how long they are fed on the crop.

The likely explanation for the loss of teeth comes from poor calcium consumption and leeching of calcium from body reserves (bones and teeth) for use in other more essential body functions. The weakened teeth can then break or become loosened and fall out as the animals eat 'solid feeds' such as swede and turnip bulbs, especially when they're frozen!

The solution is growing forage crops with naturally high levels of calcium, and for lambs particularly, growing the varieties with lots of leaf and relatively little bulb. The best varieties for these circumstances are Appin stubble turnip, Pasja forage brassica, and Keeper or Provera kales. All of these plants have high calcium concentrations and are very leafy; the Appin and Pasja are good for April-July feed, and the kale good for June-September feed.

The ultimate solution will come from using calcified seaweed as a fertiliser before sowing the crops as this will correct any calcium deficiency in the plant.

The following crops are the ones we think have most promise as high quality, high yielding (adequate calcium) winter feeds.

| Species | Cultivar | Yield (tonnes/ha) Tops | Bulb | **Total** | Feed during (guide only) |
|---|---|---|---|---|---|
| Turnip | Green Globe | 1.4 | 9.8 | **11.2** | April to June |
| | Barkant | 2.0 | 10.6 | **12.6** | April to June |
| | Samson | 1.8 | 12.4 | **14.2** | April to June |
| Stubble turnip | Appin | 7.0 | 3.9 | **10.9** | April to July |
| Swede | Highlander | 0.6 | 5.0 | **5.6** | June to September |
| | Ruta Otofte | 2.1 | 14.8 | **16.9** | April to August |
| Chinese Cabbage | Pasja | ~4 | ~2 | **~6** | February to July |
| Kale | Keeper | 8.4 | 0 | **8.4** | June to September |

The turnips can be used later in winter, but the leaves deteriorate and fall off by the end of July. Since most of the protein (and calcium) is in the leaf, it is wise to eat the whole plant before this happens rather than saving the bulbs to use later. The same is also true for Ruta Otofte swedes as they lose their leaves in late winter.

The advantage of Keeper kale and Highlander swedes as late winter feed is that their leaves stay in-tact until spring.

The yields of Pasja and Appin can be higher than those listed above as both can be grazed more than once. If they are planted early in the season (September/October), they can be fed off early in the new year and locked up and regrown for later autumn and winter feed. The only precaution is to feed them off lightly so that the animals don't eat into the bulbs. If they do, the plants won't regrow.

For any more information on anything to do with the lamb trial, breeds and carcass quality, or growing forage crops, sowing rates, times of planting and fertiliser requirements, I'm just a phone call away ... just keep trying if I'm not there the first time!

## "TO P OR NOT TO P – THAT IS THE QUESTION"

***by Andrew Bell – Research Student from the Queens University Belfast.***

My mother always said it was bad for you not to P when you needed to. I took her advice so seriously that I've decided to try and help others establish if in fact they need to P and if so, then how much.

What on earth? An article on urination practices?

Well no you see I'm not working for the Health Department but rather for the Department of Agriculture where P is short for phosphorus and soil nutrient imbalances, regarding P, is the talk of the crowd.

So, to P or not to P that is the question which my work will try and help answer. It's true to say that in the Falklands the answer is almost always – yes, but how much P to apply and when, are the fundamental aspects of practices like pasture improvement which should be made a little easier by having an accurate and reliable soil P test. The work is linked to the research currently aimed at the use of Rock Phosphate as a source of P and will hopefully under-pin future research on the release of P from this organic fertiliser.

My task here is to establish the best and most suitable soil phosphorus test for use in the Islands. Work on the unique and challenging range of soils often needs accurate levels of P to be known. This is important as P is an essential nutrient which is in short supply in these soils, yet it is vitally important for establishment of sustainable improved pastures on which the future of the islands agriculture is becoming increasingly dependent.

There are many tests for detecting the level of P in soils, however, each test is designed for use on a specific soil type. Different soils have different abilities to supply a plant with P depending on the concentration of available P present. Hence, each test uses different ways and chemicals to extract and measure the amount of available P. What I'm attempting to do is to sample soil and grass from across the Islands and compare P levels between different tests in relation to grass P concentrations. The level of P in the herbage, is the actual amount of P available in a particular soil.

Therefore, the most accurate will be the test with the closest values to grass P levels. It may well be the case that this work will simply prove that the test currently in use is actually fine, in which case it will be good to know that. However, if not, then a more accurate test will be available for those who want to know the level of P in a particular soil for an area which they want to re-seed or plant with crops. It will also give a more accurate measurement of soil P status, this will make fertiliser rates more economic and less wasteful.

It's ironic that both the Falklands and N. Ireland suffer from phosphorus problems – one being deficient and the other being P saturated – each extreme having commercial and environmental problems respectively.

So far, we have sampled Shallow Harbour, Fox Bay, Hill Cove – Main Point, Roy Cove, Chartres, Green Hill and Port Howard. The East Falkland sampling has just begun, and will include sites like Estancia, Fitzroy, Brenton Loch, Saladero, Mt. Kent, Hope Cottage and Salvador.

So that's my P story, it's simple I know, but always remember what mothers say –
***"it's good to P ! "***

## EARLY SHEARING

***By Susan and Tony Hirtle***

*Do you do your shearing early or even very late—let me know what your views are and what problems you have or can see, if any.*

For years before we took over the running of Golding Island farm, my father was pre-lamb shearing with great success. This we carried on and gradually with having Critta (Susan's son) home in October and making use of him as a shearer, we shore our hoggets earlier and earlier with great success.

Last year we shore all the sheep on Golding Island in October. This year having seen the result of early shearing we decided to shear all the sheep at Peaks Farm early as well. We began shearing on 1st October and finished on 8th November. We had very little problems with the weather and next year we hope to finish shearing on 29th October. The only problem we did encounter was for boating.

We are sure that there are disadvantages for shearing early, but, as yet, we have not found any from a farming point of view apart from the weeds in the garden which are looking bigger and stronger than usual.

The list below are the advantages that we have found for shearing early so far:

- October weather is usually dry and reasonably mild;
- The sheep are shorn before you loose too many through them becoming cast;
- Losses off the shears appear to be very light. This year the hoggets on Golding Island had bad weather and we lost about 8, double the amount we usually loose. Maximum loss of ewes off the shears was 2 usually 1 to pregnancy toxaemia;
- Because all the sheep pick-up quicker after being shorn, ewes in particular are in a much better condition for lambing;
- Lambs can be weaned at any time, as the date is not controlled by the date for shearing the ewes;
- Increase in lambing percentage as the ewes go to shelter in adverse weather conditions thus ensuring that the lamb has shelter too;
- We have found on Middle Island especially that our wethers have not been affected by the lack of water in the paddocks at shearing time. In the past we have lost sheep through dehydration;
- The wethers especially have increased in bodyweight and wool production;
- Early shearing drastically cuts down the amount of stain at the tail of the fleece;
- Ewe wool does not have a break in it;
- Higher yields throughout the flocks;
- We have virtually eliminated the dirty wool on Golding Island. At the Peaks in 1999 we pressed 2981kgs of dirty wool which was nearly all sand and peat dust. This year we pressed 1266kgs of dirty wool giving us a saving of 1715kgs. This together with the increase in yield has got to be a big plus for early shearing. We believe this is due to the sheep being shorn before the hot weather really starts and the sheep have not been rubbing on the banks etc. nearly so much;
- We kill the culls straight off the shears which leaves more food for the flock sheep;
- With the abbatoir in mind, the sheep are in much better condition for sale at any time during the summer and early winter;
- Farmers using a rotation system can put dry sheep up on the high ground earlier;
- Because our wool is on its way to the UK before Christmas we usually receive our wool payments earlier;
- At the end of it all, the farmer has the long summer days to do other jobs, contract work, play gold or even go on holiday.

## THE FALKLAND ISLANDS NATIONAL HERBARIUM

*(by David Broughton)*

November saw work commence on a project to provide the Falkland Islands with a National Herbarium, which will be housed at the Department of Agriculture. So, what is a herbarium, why do we need one, and how can **you** help?

A Herbarium is essentially just a collection of pressed plant specimens, collected and curated to high scientific standards. However, what is effectively a simple idea is also an incredibly useful tool. The specimens in a herbarium form the botanical equivalent of a library providing a set of reference material, which can be used as a training resource and to identify unknown plants. The herbarium will therefore be of value for staff at the DoA, as well as at Environmental Planning and Falklands Conservation. It will also be very useful in helping to identify plants sent in by members of the public.

The collection should eventually house examples of all species found growing wild in the Falkland Islands and the project has been given an important start by Robin Woods who is keen to see the plant material that he has collected since 1995 returned to the Islands for appropriate storage & use. Robin has been given a Shackleton Fund scholarship to aid the project which is also being supported by Falklands Conservation, the Darwin Initiative (DETR) and of course the DoA.

Properly stored and maintained, herbarium specimens are capable of lasting for at least 100 years. Thus, this is a project that will provide long-term value. It will provide a unique resource for all Falkland Islanders and allow the development of self-sufficiency in botanical expertise, something that is crucial if plant resources are to be correctly identified, used sustainably, and conserved for the future.

Finally, the project is still in its early stages but you can help us by ensuring that any plant material collected for identification is sent in, in the best possible condition. This is important because it will aid identification and it will allow us to incorporate any unusual specimens into the collection, for future reference. If you could also provide some or all of the following information – location, grid reference, date of collection, soil type (peat, sand, clay etc), and other associated plants - the specimen will be of even more value.

Plants can be best preserved by pressing them to remove moisture. This can be done be placing a representative specimen (with leaves, stem and flowers/fruit) between several pages of newspaper and weighted for a week or so (or for as long as it takes to dry the plant out). These dried specimens can then be sent, suitably packaged, to the Herbarium c/o the Department of Agriculture. Alternatively, plants can be placed into a plastic bag with some damp tissue paper. The bag should then be sealed so that it retains some air and posted, labelled **urgent**.

## CONTROLLING GARDEN WEEDS AND PESTS THE 'NATURAL' WAY.

***By Aidan Kerr***

- Orange and grapefruit peel scattered on the ground keep cats off.
- *Slugs/snails – smear petroleum jelly on the rims of flower pots, scatter eggshells or crushed seashells on the ground, or drown them in beer in small tubs sunk in the ground.*
- Spray insects like Greenfly with soapy water or a garlic water mixture. All-purpose insect spray – combine 1 chopped/crushed garlic bulb, 1 small chopped onion, teaspoon of cayenne pepper in a quart of water. Steep for one hour, strain and add some washing up liquid. Mix well. Spray plants well on all surfaces. Can be stored for a week in a fridge.
- *Banana skins provide fertiliser for rose bushes.*
- Use pieces of old carpet or carpet tiles as mulch mats for suppressing weeds around newly planted trees and shrubs. Mats made from natural, rather than man-made, materials allow more water to filter through.
- *Use black plastic over the ground to suppress weeds. Cut slits for crop plants when they emerge.*
- Scattered rhubarb leaves deter pests.
- *Plant companion plants like caraway, dill, fennel, parsley, rosemary, thyme and yarrow. These attract beneficial insects that eat the pests.*
- Plants such as tansy repel some types of aphid and squash bugs. Tansy also seems to attract butterflies here. Tomatoes repel flea beetles from Brassicas.
- *If near a power point use a vacuum cleaner to suck up pests on strawberries or other plants.*
- Alternatively shake your shrubs to dislodge creeping pests. Best done in early morning or evening. Put a sheet underneath to collect them.
- *Spray water to dislodge soft-bodied insects like aphids and spider mites.*
- A 5% solution of baking soda and a little soapy water will prevent some fungal problems.
- *Rock salt helps asparagus resist crown and root rots.*
- Sprays made from tomato leaves offer protection from aphids. Avoid contact with your skin.

If you need any more details on any of the tips above please ring me on 27355. Better still please **SHARE YOUR TIPS** in Wool Press!

# THE FOURTEENTH
# WEST FALKLAND RAM & FLEECE SHOW 2000

This will be held in Coast Ridge Farm woolshed at Fox Bay Village on 29th December 2000. (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 – 1.00pm. Judging will commence at 2.30 to 4.00pm and be by public ballot. Prizes will be presented at 6.00pm.

**Prize list.**

***Class 1 - Full Wool Ram Hogget***
1st prize. Engraved Challenge Shield presented by Mr & Mrs Austin Davies + £75 donated by Standard Chartered Bank.
2nd prize. £50 donated by Cable & Wireless plc.
3rd. prize £40 donated by the Falkland Islands Development Corporation
4th prize £25 donated by R. M. Pitaluga & family.

***Class 2 - Full Wool Shearling Ram***
1st prize Silver Cup presented by Dunnose Head Farm + £50 donated by Cable & Wireless plc.
2nd prize £60 presented by the Falkland Islands Development Corporation.
3rd prize £50 presented by Saddle Farm Computers.
4th prize £25 presented by the Rural Business Association.

***Class 3 - Full Wool Mature Ram***
1st prize Falkland Islands Wool Marketing Challenge Cup. A replica and £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 £25 presented by Little Chartres Farm.

***Class 4 - Hogget Fleece***
1st prize Silver Challenge Cup and replica presented by Meridith Fishing Company and Falkland Hydrocarbon Development Ltd + £40 and voucher donated by Falkland Farmers.
2nd prize £50 Fuel Voucher donated by Stanley Services.
3rd prize £35 voucher donated by Falkland Farmers.
4th.prize £25 voucher 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 presented by " Newton Investment Management Ltd (FIG's investment managers).
Prizes in 2nd, 3rd and 4th 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 and £25 presented by Ursula Wanglin.
2nd prize £60 donated by Falkland Islands Sheepowners Association.
3rd prize £40 also donated by Falkland Islands Sheepowners Association.
4th prize £25 donated by Stanley Electrical.

***Additional Prizes***
The Champion Ram wins `the Patricia Luxton Perpetual Challenge Cup` + replica from the Luxton family Chartres. 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 which are all provided by Jim McAdam of the Department of Agriculture, Northern Ireland. A Silver Challenge Cup + £60 for the fleece with the highest commercial value to be presented by the Falkland Islands Development Corporation. For 1st., 2nd.,& 3rd. prize winners in Class 3 trophies are donated by Peter Short, Twigworth Trading. 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 Sulivan 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. The Southern Cross Social Club have financed the barbeque and 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. All fleeces should be skirted fleeces only and all neck belly and stained wool should be removed before the fleece is rolled.

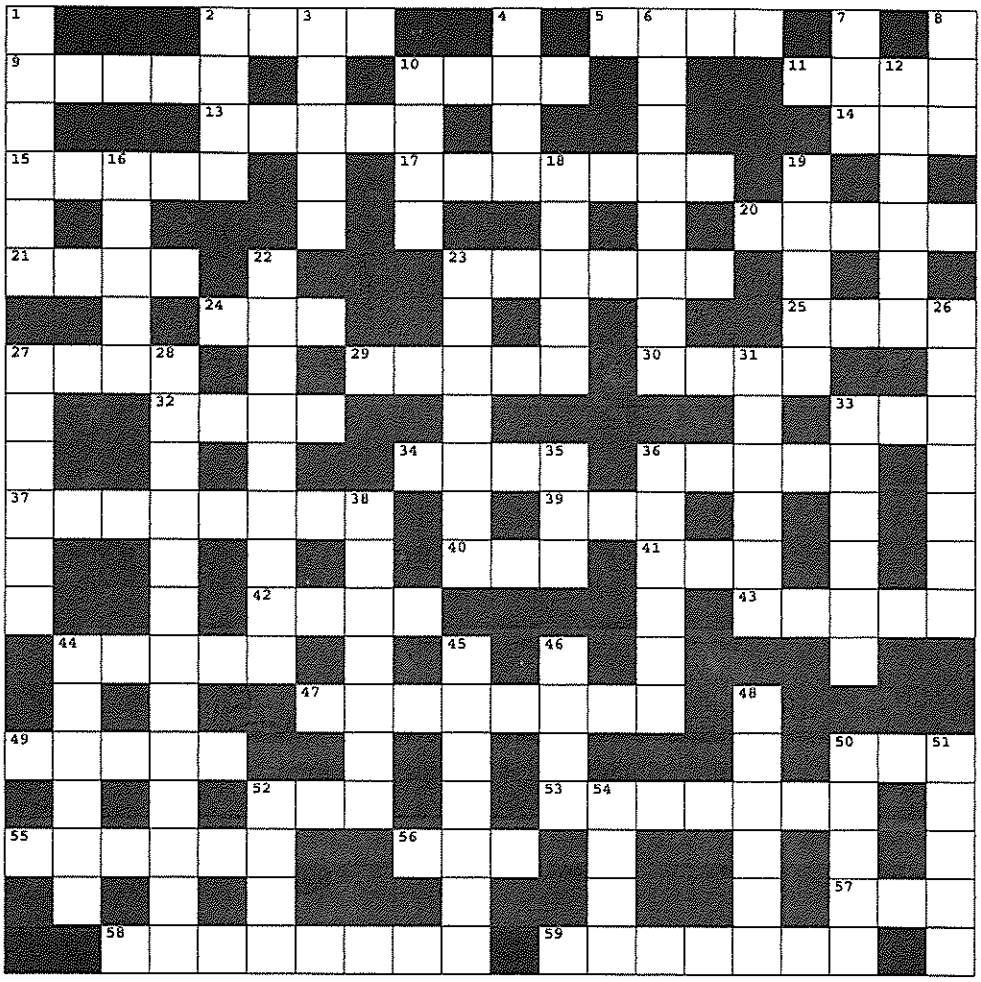
The fleece with the highest commercial value will be judged on the day by two experienced `*wool people*` using the following criteria;

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.

## DOG Dosing Dates 2001/2002

January 17th—Drontal
February 21st—Droncit
April 4th—Drontal
May 16th—Droncit
June 27th—Drontal
August 8th—Droncit
September 19th—Drontal
October 31st—Droncit
December 12th—Drontal
January 23rd—Droncit

# CHRISTMAS



## ACROSS

2. WHAT MAKES A CHRISTMAS WHITE?
5. RUSSIAN EMPEROR
9. DELIVERER OF BABIES
10. ROSE FRUIT
11. PART IN A PLAY
13. ESKIMO HOUSE
14. CHURCH BENCH
15. QUESTIONED
17. POINT OF MEASUREMENT IN A HORSE
20. WORTH
21. OLD WOUND MARK
23. TREE WOOD USED FOR CRICKET BATS
24. DRIED GRASS FODDER
25. OF MIXED COLOURS
27. HOMELESS CHILD
29. SOUTH AMERICAN MOUNTAIN RANGE
30. ONIONS TO PLANT
32. GREEK 'I' THAT DOESN'T MEAN A JOT
33. OLD DEPTARTMENT OF AGRICULTURE
34. PART OF THE EYE
36. KING THAT ORDERED ALL INFANT BOYS TO BE KILLED
37. FRONT LIMBS OF HORSE, COW, ETC.
39. SHADE OF COLOUR
40. NO
41. LOTS OF THIS WILL FLOW OVER THE CHRISTMAS AND NEW YEAR HOLIDAY!
42. TIP
43. SHARPLY PULLED AMERICANS??
44. PRICKLY CHRISTMAS PLANT
47. TOP JOCKEY AT SPORTS
49. FRIGHTEN
50. COOKING FUEL
52. THERE WAS NO ROOM HERE FOR MARY
53. PIGS FOOT
55. TAKEN FROM THE MOTHER
56. DONKEY
57. ANIMAL DOCTOR
58. SHEARING COMPETITION VENUE
59. FLUE

## DOWN

1. FILM AWARDS
2. SLIDE OUT OF CONTROL
3. YOUNG OWL
4. ROTISSERIE
6. HOUSE BIRDS
7. JUMP ON ONE LEG
8. FASTEN WITH STITCHES
10. THE NOISE OF A WOLF
12. NITROGEN FIXING PLANT
16. ARMY GREEN COLOUR
18. CATAMARANS HAVE TWO
19. ANGELS SUPPOSEDLY PLAY THESE
22. 8th OF DECEMBER
23. TYPE OF DUCK FOUND IN FALKLANDS
26. A CHRISTMAS CAROL AUTHOR
27. LARGE SPEAKER THAT SOUNDS LIKE A DOG
28. GIVEN ON THE FIFTH DAY OF XMAS
31. CHRISTMAS BIRD
33. COUNTDOWN TO CHRISTMAS CALENDAR
35. COY
36. GOD'S ABODE
38. WENCESLAS LOOKED OUT ON THIS FEAST DAY
44. GAME PLAYED ON ICE
45. LOSS OF MEMORY
46. PRESENT
48. FALL IN AMERICA
50. MEAT SAUCE
51. MR CLAUS
52. NOTION
54. WEALTHY