WOOL PRESS

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IN THIS ISSUE:

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EDITORIAL

Another year has come and gone, together with Stanley Sports, West Falkland Ram & Fleece Show and the Estancia Shearing Competition. Congratulations to all those who won prizes and commiseration's to those of you who didn't. No doubt it won't be long before we've done the full circle of annual events again, with barely 2 months to recuperate before the Camp Sports start!

The WOOL PRESS is published by the Department of Agriculture with the intention of enhancing Falkland Islands farming and any product that the agricultural sector produces, by providing information, and to some extent, encouraging debate. I am somewhat concerned about the use of the valuable space that the WOOL PRESS provides, when the term "debate" begins to be taken over with connotations of "slanging match". This does not do Falkland agriculture any good at all and can only be detrimental rather than enhancing. The repercussions of who was and who wasn't invited to the Quality Falkland Wool Assurance Workshops seem to take up a great deal of this issue. Each party has now had their say, and I feel that this should be the end of it as far as the WOOL PRESS is concerned. Any further correspondence on this matter will not be printed.

On the back page you will see a programme of informative seminars to be given by the Department of Agriculture staff. If you are in town when any of them are scheduled, you are most welcome to attend. It may be worth phoning the office to confirm that the programme is running to schedule in case there has been a cancellation for some unforeseen reason! We look forward to your interest. Maybe some of you have a topic that you would like to give a seminar on. I am sure that any guest speakers will be accommodated in the timetable.

" . . . . and may the blessings of a bountiful and joyous New Year be with you too Reverend . . . ! "

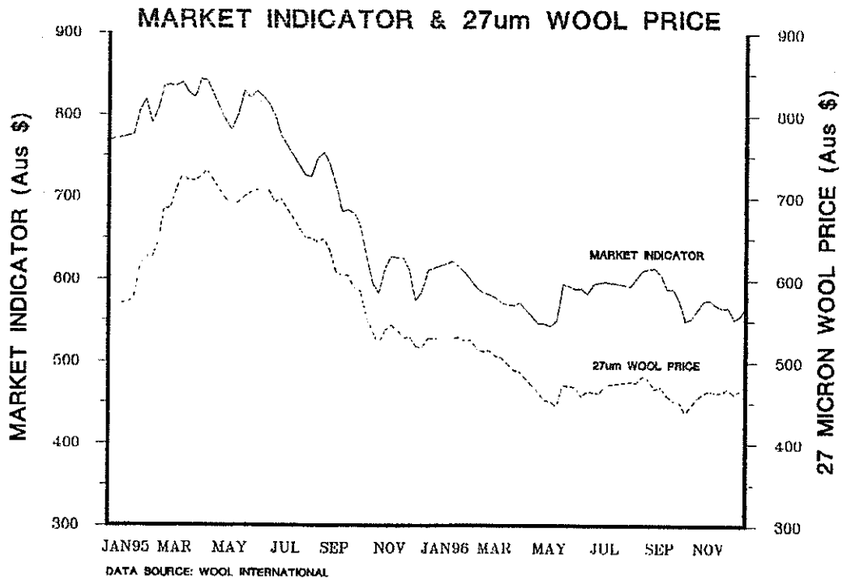
THIS MONTH'S CONTRIBUTORS

Owen Summers	Agricultural Development Officer.
Judy Summers	Secretary, Farmers Association.
Nigel Knight	Farm Owner, Coast Ridge Farm.
Charlene Rowland	Senior Agricultural Assistant, DoA.
Ailsa Heathman	Farm Owner, Estancia Farm.
Doug Cartridge	Wool Adviser, DoA.
Gillian Phillips	National Stud Flock Manager, DoA.
Robert Hall	D.S.& Co. (Falkland Farming) Ltd. Bradford.
Jonathan Sear	Research Student, Queens University, Belfast
Colin Smith	Director D.S. & Co. Falkland Farming Ltd
Lyn Blake	Farm Owner, Little Chartres Farm.

WOOL MARKET

by Hugh Marsden

The Australian wool markets closed for the Christmas recess on the 12th of December with prices closing on an upward trend. Since the last wool market report, the Eastern Market Indicator has declined by 8 cents to close at **568 cents/kg**. The 27 micron Indicator has advanced by 8 cents since the end of October closing at **473 cents/kg.** Sales in Australia will resume on the 7th January 1997.



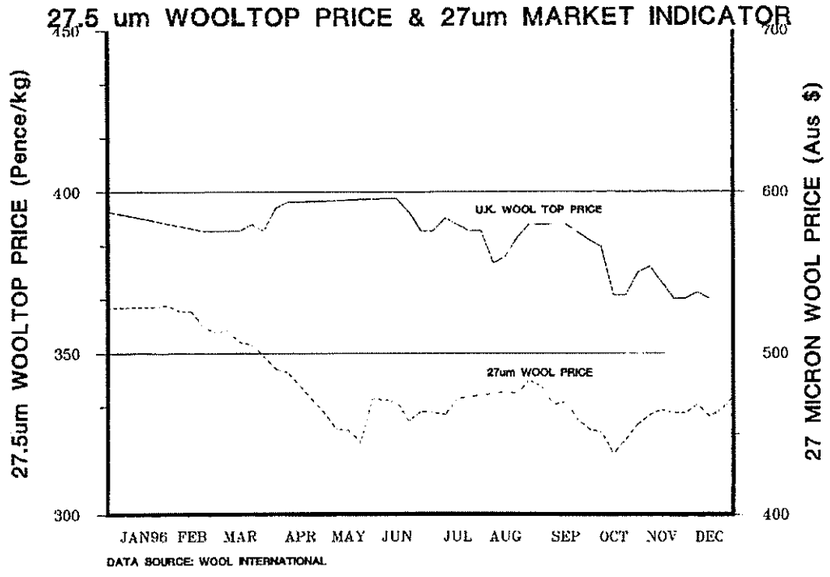
The Australian $ has weakened considerably against sterling during recent weeks. It has slipped by over 13 cents since the end of October to stand at **218 cents** on the 24th December. This is not a positive development for Falkland producers as it tends to reduce the U.K imported value of competing Australian wool.

Stockpile sales eased during November and increased during December. As most readers will be aware, the Wool International stockpile dipped below the 2 million bale landmark in mid-November and currently stands at **1,956,701 bales.**

Comparison of Wool International Stocks July 1991 - November 1996
(farm bale equivalents)

MICRON RANGE	TOTAL STOCK 02/07/91	TOTAL STOCK 29/11/96	% REDUCTION ON 1991 LEVEL	% OF TOTAL 1995 STOCK
20.5 and finer	221,856	143,018	35.5	7.2
20.6 - 22.5	1,150,545	709,879	38.3	35.7
22.6 - 24.5	1,425,907	685,339	51.9	34.5
24.6 - 26.5	348,136	151,601	56.4	7.6
26.6 & coarser	264,509	107,971	59.1	5.4
other stock	1,149,184	187,170	83.7	9.4
TOTAL STOCK	4,623,137	1,984,978	57.0	100.0

The composition of the stockpile remains heavily skewed in the 20.6 to 22.5 micron categories. Sales from the Stockpile have been particularly strong 22.6 to 26.5 micron categories during the year having declined from 47.5% of the stockpile at the end of October 1995 to 42.1 % at the end of November 1996.



Faced with a continuing slump in prices, the Australian Wool Production Forecasting Committee have revised their expectation for the 1996/97 selling season. Australian prices are now expected to average 600 cents for the season. This represents a 20 cent reduction on the November estimate. The Market Indicator average for the first half of the 1996/97 selling season was 582 cents/kg suggesting that forecasting committee is still predicting a market recovery for the second half of the season.

HAPPY NEW YEAR

FROM ALL OF US AT
THE DEPARTMENT OF AGRICULTURE

A CONSTRUCTIVE THREE HUNDRED WORDS ON QUALITY FALKLAND WOOL.

from Colin M L Smith (Director) D.S. & Co. (Falkland Farming) Ltd

The textile industry is increasingly obtaining the capability to analyse all wool products using computer technology, woollen and worsted manufacturers are becoming far more critical and exacting on specifications for discoloured fibres. From the start of the 1995/6 season manufacturers reported a general deterioration in Falkland discoloured fibre readings.

The agency called for a "**Stain Free Clip Campaign**". Firstly to halt the deterioration and sustain the value and reputation of Falkland wool. Secondly to positively target the technology by improving Falkland readings, to enhance future Falkland wool demand and prices.

The Assurance Scheme was cobbled together without reference to the agency. Nigel Knight on behalf of the committee claims that D.S. & Co. was invited to participate in the Wool Workshops. But "As usual they (D. S. & Co.) declined" (Agdept Wool Press December 96).

D. S. & Co. was not invited and Nigel Knight, the committee, Department of Agriculture, Farmers Association should provide evidence that such an invitation was made to D. S. & Co. or failing that issue a full and unqualified retraction in the next edition of the Wool Press.

The agency consistently recommended that no Falkland Assurance Scheme should be contemplated until the removal of stained wool from fleeces was being consistently achieved and verified. Obviously failure to do so would jeopardise and damage the Assurance Scheme and Falkland wool.

Mr Marriot was apparently funded by F.I.D.C.

The agency did not back down in 1987 when Mr Marriot's views supporting polyproplene packing were reiterated to all Falkland Farmers and received widespread support. We will not back down today.

The key for farmers producing quality Falkland wool commences with sheep bred to produce snow-white wool. Followed by crutching or in absence of that prime DalCare criteria, by greatly enhanced wool preparation by shearers, rousies and table hands, prioritising stained wool. Such quality Falkland Wool will receive that best assurance of all, good laboratory test results, satisfied manufacturers and improved demand and prices.

FIDC FUNDED VISITS TO WOOL WORKSHOPS

by Colin M L Smith (Director) D.S. & Co. (Falkland Farming) Ltd

At the end of July, Lyn Blake phoned Robert in the evening at his house in Knaresborough and chatted about him visiting the Falklands or maybe even better, Heide Blake and Doug Cartridge visiting the agency and manufacturers, to gain first hand knowledge of the basis of the stained fibre problem, the tests manufactures have in place and their implications for Falkland wool. That was that. The agency wrote to the Department of Agriculture, with a further formal invitation on 8th August 1996.

Although Lyn, no doubt, reported to the committee at the end of July, no letter, fax, airmail was ever received by D. S. & Co., Robert or I, inviting us to **'workshops'** with any details, objectives, dates , proposed itinerary, from Farmers Association, the Committee, Department of Agricultural, The Development Corporation or from any individual. Nor was any refusal sent to anyone by D. S. & Co. (as claimed by Nigel Knight and published in the Wool Press), simply because we had received no invitation to answer.

None of the details or objectives of the Assurance Scheme were referred to us in any draft form for any comment. The first we saw was the final scheme as a presentation/circular with the Wool Press. The document did not prioritise stained fibres over and above all other issues and the agency strove for a **'Stain Free Clip Campaign'** on farms single handed.

The latest scam is to circulate that D. S. & Co, Robert and I, are being 'Negative', whereas in fact D. S. & Co. has throughout it's history proved, time and time again, to be committed to the most '**Positive**' actions, always in favour of the Falkland Islands, Falkland Farmers, and the improvement and enhancement of all aspects of Falkland wool.

FACTS THAT CONCERN THE INVITATION EXTENDED TO ROBERT HALL

From Lyn Blake, Little Chartres Farm

Here are my facts that concern the invitation extended to Robert Hall to visit the Falkland Islands to be part of a team to instruct on farms on the subject of Production, Preparation and Presentation of Falkland Wool.

As chairperson of the committee working on this project I phoned Robert at his home, as I did Peter Marriot and Heidi Blake, who were invited in the same way, with no requirement for it to be put in writing.

Date:	1.8.96
Time:	15.08 local
Duration:	1062 secs / 17.7 mins
Cost:	£26.55p

The invitation was specifically to Robert as it was known that Colin was retiring in December 1996.

During the conversation Robert asked me to clarify that the invitation meant the cost of the flights to the Islands. I confirmed this.

As regards time, I remember telling him we did not have specific dates set but were looking at November/December. He said that during this time he would be very busy taking over the firm and would not be able to get away.

I have just read in a letter today from New Zealand that he was on holiday there in November! If that doesn't take the biscuit!

WIND-CHILL HOT LINE

The Department, in conjunction with M.P.A. Met. Office, is pleased to announce that a pre-recorded weather forecast and wind-chill message may now be obtained by phoning 32500.

This service is available 24 hours a day and will be updated as appropriate.

LETTER SENT TO D.S. & Co (FALKLAND FARMING) LTD

by Doug Cartridge (Department of Agriculture Wool Adviser) Date: 16/12/99

Attention: Mr Colin Smith

Dear Colin,

Thank you for your airmailed report received on the 12/12/96.

I would like to highlight a few points so as all involved in the Falkland Islands wool industry (Grower to Topmaker) are aware of the situation in the Falkland Islands.

It appears from some of the comments made (in the airmailed report) by purchasers and processors of Falkland wool that they have been led to believe that someone is promoting lowering the current high standards of clip preparation in the Islands. It also appears some have been led to believe that the importance of removal of stained wool is being ignored and somewhat neglected in the 1996/97 wool clip.

Whoever led the users of Falkland wool to believe this load of rubbish is obviously not aware of the effort which has been put in by Falkland wool growers, Department of Agriculture, Farmers Association, D.S & Co. and others in an attempt to substantially lift the level of preparation of Falkland Island wool.

I would like to reassure you that every effort is being made, by all concerned at this end of the industry, to reduce the levels of stained fibre and to help all participants realise the need to protect the good name Falkland wool has as a quality product.

The wool workshops held recently, in which 116 people attended, were aimed very much at the importance of quality sheep breeding for quality wool, skirting of the fleece including removal of stain, sweaty ends, medullated fibre and vegetable matter, wool classing and processors requirements.

Considering the very good attendance's we had (80% of farms represented), it is hard to believe that Falkland wool growers are supposedly not attempting to improve the level of preparation of the Falkland Islands wool clip.

The other farmer initiative that has been commenced this year is the introduction of the quality assurance scheme. The scheme has been developed to ensure that the level of preparation is improved and that the processors of Falkland wool are made aware of the attempts that are being made on farm to maintain Falkland wool's image as a quality product. You have personally been very critical of the Quality Falkland Wool scheme, which does at times amaze me. Here is a farmer initiative to improve the quality of Falkland wool and the main agency selling the wool is not supportive of the cause!! The scheme has the same mechanics as a stained free clip campaign, with a great deal of emphasis put on removal of stain and black fibres but also incorporates issues such as the elimination of other contaminants in the wool like polypropylene.

As you should be aware the scheme operates in two distinct steps,

Step One
The farmer is required to meet certain criteria as far as putting in place infrastructure in the woolshed to enable the efficient removal of contaminants, such as stained fibres. The criteria includes good woolshed lighting which as Robert and yourself know helps dramatically to differentiate between stained and unstained wool. The balance of the criteria mainly deal with cleanliness and freedom from other foreign contaminants.

Step Two
Wool preparation and classing. This is primarily the responsibility of the farm owner/ manager though random checks are being carried out by myself. The requirements are stated in black and white and include all of the requirements laid down in the 'Falkland Islands guide to clip preparation'. This includes the removal of all stains, black wool and contaminants from the wool.

If standards are not maintained by the farmer/farm manager the stencil will be removed until such time as that farm can prove that preparation standards have improved.

If you have a problem with a particular lot that carries the stencil a detailed report, such as that in your report from Woolcombers, would be most useful in identifying problem areas. The difficulty will be when several farm brands are lotted and sold together and a poor reading is discovered afterwards.

I believe there is no greater threat to Falkland wool than gaining a reputation for containing unacceptable levels of discoloured fibres and firmly endorse all of your comments regarding stained fibre removal.

cc. Jowett & Whitaker
J S Murray & Company
Laycock International Ltd
Modiano
Prouvost
Wool Press

"QUALITY WOOL SCHEME"

Extracts of letters from Judy Summers, Secretary, Farmers Association.

To the Chief Executive.

I attach a copy of the letter I faxed to Colin and Robert, the reply to which has been copied to you and the Director of Agriculture.

It was remiss of me not to have sent D.S. & Co. a written invitation, but I would like you to be aware of the following:

8 August 1996: In a fax to Doug Cartridge, Robert Hall said "Lyn 'phoned me last week. Rather than a brief advisory visit by Peter Marriott and myself, I suggested that you and Heidi come here ... etc" This clearly refers to the telephoned invitation to Robert asking him to come down here, made by Lyn Blake.

23 August 1996: In a fax to Robert I told him about the proposed wool workshops and I said "We were disappointed to hear that you are too busy just now to pay a visit to the Islands". I never had a reply from Robert, instead I received a long fax from Colin. Amongst other things he said "Farmers are well aware how to skirt stained from fleeces and do not require more jolly delegations going around to show them which is stained wool and which is clean ... etc".

I think you will agree that D. S. & Co. were issued an invitation, although only by telephone, and they were well aware of plans for wool workshops and the Quality Wool Scheme.

The sub-committee investigating Quality Assurance for Wool, chaired by Lyn Blake, were very alarmed at the remarks made by wool tops manufactures by letter to D. S. & Co. (which Colin had copied to various people here) and which seemed to indicate that Colin had been telling them that the quality of Falkland wool was back-sliding due to loss of impetus in the stain-free campaign. Because of this Doug Cartridge wrote to D. S. & Co. with copies to the Topmakers. The sub-committee also instructed me to do the same.

I think it is important to try and get the co-operation of D. S. & co., and I was quite prepared to make a personal apology for my own short comings in the interest of a more harmonious relationship with D. S & Co.

To Colin and Robert.

I would personally like to apologise to you both for failing to send a letter of invitation to the recent workshops, and for not asking for your input on the Quality Assurance Scheme. The wrong impression from various correspondence was received, but that is not an excuse, and I am sincerely sorry the failure caused such offence - I can assure you it was not intended.

I am looking forward to meeting you in February Colin, and hope that you and Robert will accept my apology, and that when you are here we can have a constructive discussion on the way forward.

This letter has been taken as an admission of not inviting anyone from D.S.& Co.Ltd. to the wool workshops. This is not the case. Robert had the same telephone invitation as Peter Marriott and Heidi Blake.

WORM APPEAL

from Jonathan Sear

Many farmers will appreciate the useful role played by earthworms in improving conditions for plant growth by assisting in releasing nutrients and enhancing soil texture. This has been clearly demonstrated in New Zealand when the introduction of European earthworm species resulted in a large increase in pasture productivity.

Very little is known about earthworms in the Falklands, although they are found in a wide range of situations including decaying Tussac bogs, vegetable gardens, and less abundantly all over camp. It would be useful to be able to identify these worms and to discover whether they are native to the Falklands or were accidentally introduced from Europe. This would help us to establish whether worms could play a useful role in Falklands agriculture. It is possible that they could be used in conjunction with seaweed mulches and sand to assist in soil restoration on severely eroded sites, and there may also be potential for their use in general pasture improvement similar to that achieved in New Zealand.

Progress is dependent on finding the right species, however. Large, acid tolerant species which can reproduce rapidly would be the most promising. I have enlisted the help of an earthworm specialist in the UK who is willing to identify specimens for us, and I am on the lookout for worms wherever my work takes me. The number of sites one person can cover is very limited though, so I would be extremely happy to receive specimens from anyone willing to help! They should be sealed in a plastic bag or container with some soil or decomposing vegetation and sent to/ left for me at the DoA. Please label them with where, and from what sort of ground they were collected and be sure to include the largest ones you find, as often it is only mature specimens which can be reliably identified. Thanks for any help you can give - I'll keep you informed of progress through the Wool Press.

FARM BOUNDARIES:

by Owen Summers

Some while ago F.I.G. allocated funds for G.P.S. survey equipment, primarily for the accurate mapping of camp roads and farm boundaries, the latter being particularly relevant since many fences have been removed since the 1952 survey and others have been erected since.

The equipment was purchased and installed earlier this year and has been used for some local survey work and also for the routing of the Goose Green to North Arm road.

Ross Chaloner (P.W.D. Surveyor) and Department of Agriculture staff will be carrying out this survey work, we have been out on two occasions as trial runs but expect to start in earnest in the New Year. So far we have found that 20 miles per day is easily achievable and expect to greatly improve on this with longer days in the field, much of course depends on the type of terrain being traversed and the number of turns in fence lines.

The departments main role is co-ordinator of the project and ensuring that the correct fences are being surveyed, it is hoped that we will be able to call for farmers co-operation/participation with this latter point. We expect to start in the Port San Carlos area and will be in touch with you all as we progress.

POSITIVE "INTEGRATION" OF AGRICULTURAL GRANTS

by Robert H B Hall

It is widely acknowledged that the Rural Development Assistance Scheme (RDAS) concentrates upon encouraging the development of "new ventures" in Camp for a wide "cross-section of the rural community". Indeed such projects by their nature require special and appropriate assistance.

The clear objective must be to enhance the economy of Camp: now would therefore be an appropriate time for an additional grant scheme targeting current ventures:

Now: because F.I.G. has shown recent willing to both invest in Camp and in the service capabilities of the Department of Agriculture (DoA).

An additional grant scheme: because farmers and DoA would greatly benefit from positive integration of agricultural research, development and advisory work. There is an opportunity to be had by all.

Furthering the integration of agricultural research, development and advisory work means using research results to develop practical advisory packages, which can be transferred into Camp and profitably applied by farmers on their farms. Such "technology transfer" is encouraged by advisers and greatly assisted by specific Government grants.

The introduction of such an *Agricultural Development Scheme* which integrates the best research with development on the ground, would be of huge benefit to farmers. After twenty years of research, there must be an untapped fund of possible developments, worthy of grant assistance and promotion. A scheme which encourages farmers with grants and advice to use best research, would demonstrate the DoA successes physically on every participating farm in Camp. The result would be increased farm incomes and faster growth in the agricultural economy. Such an *Agricultural Development Scheme* could be reviewed bi-annually to incorporate best research as it comes on stream.

In short, as we start a New Year, both farmers and the DoA deserve a new, positive, objective and practical *Agricultural Development Scheme.*

AN INVITATION

from Malcolm and Glennis Ashworth, Stanley Dairy Ltd.

WE SHALL BE STARTING SILAGE AND HAY MAKING IN EARLY JANUARY. IF ANYONE IS INTERESTED IN SEEING THIS AND WATCHING THE MACHINERY IN OPERATION, PLEASE COME AND SEE US.

IF YOU ARE GOING TO BE IN STANLEY DURING THE NEXT COUPLE OF MONTHS AND WOULD LIKE A LOOK, JUST GIVE US A RING IN THE EVENING (LATE!) AND WE WILL TELL YOU THE BEST TIME TO COME.

IF YOU ARE JUST PASSING ON THE ROAD AND SEE THINGS HAPPENING, POP DOWN AND HAVE A CLOSER LOOK.

WE LOOK FORWARD TO SEEING YOU.

WEST FALKLAND RAM & FLEECE SHOW

a report from Nigel Knight, WFR & FS organiser

1996 PRIZE LIST

Prize		Won By	Points
Class 1	**Full Wool Ram Hogget:**		
1st Prize	Engraved challenge shield presented by Mr & Mrs A Davies + £100 donated by Cable & Wireless PLC.	Westley Farm	338
2nd Prize	£75.00 Presented by SCB Plc.	Mossvale Farm	285
3rd Prize	£50.00 Donated by Southern Cross Social Club.	Coast Ridge Farm	257.5
4th Prize	£25.00 Presented by R.M Pitaluga and family	Coast Ridge Farm	257
Class 2	**Full Wool Shearling Ram**		
1st Prize	Silver cup presented by Dunnose Head farm + £25.00 donated by FIDC	Coast Ridge Farm	255
2nd Prize	£75.00 Also presented by FIDC	Shallow Harbour Farm	242
3rd Prize	£50.00 Presented by the Saddle Farm	Teal River Farm	230
4th Prize	£25.00 Presented by Farmers Association	Coast Ridge Farm	211
Class 3	**Full Wool Mature Ram**		
1st Prize	Falkland Islands Wool Marketing challenge cup + replica & £40.00 presented by Falkland Landholdings Ltd.	Shallow Harbour Farm	323
2nd Prize	Statuette presented by the FIC Ltd.	Coast Ridge Farm	301
3rd Prize	£50.00 presented by Port Howard Farm	Mossvale Farm	282
4th Prize	£25.00 presented by Southern Cross Social Club	Coast Ridge Farm	273
Class 4	**Hogget Fleece**		
1st Prize	Challenge Cup & Replica presented by Meredith Fishing Company & Falkland Hydrocarbon LTD.	Shallow Harbour Farm	119
2nd prize	£70.00 voucher presented by Falkland Farmers.	Chartres Farm	52
3rd Prize	£50.00 fuel voucher presented by Stanley Services Ltd.	Shallow Harbour Farm	49
4th Prize	£30.00 voucher also from Falkland Farmers	Lakelands Farm	43
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	Shallow Harbour Farm	98
2nd Prize	£75.00 from Newton Investment Management (FIC's Investment Managers)	Bold Cove Farm	60
3rd Prize	£50.00 from Newton Investment Management	Shallow Harbour Farm	59
4th Prize	£25.00 from Newton Investment Management	Shallow Harbour Farm	33
Class 6	**Any 'B' Type Wether Fleece**		
1st Prize	Engraved Challenge Cup presented by Coast Ridge farm + replica & £25 presented by Ursula Wanglin	Chartres Farm	64
2nd Prize	£50.00 presented by the Falkland Islands Sheep Owners Association	Coast Ridge Farm	60
3rd Prize	£25.00 Donated by Little Chartres Farm	Bold Cove Farm	47
4th Prize	£25.00 from Stanley Electrical	Spring Point Farm	39

Additional Prizes

Champion Ram, won by Westley farm with 338 points. Prize of Patricia Luxton trophy & replica from the Luxton's, Chartres.

Rosettes given for 1st - 4th places in all classes, except for best ram overall where a supreme champion rosette is given. These were all provided by Jim McAdam, Department Of Agriculture, Northern Ireland.

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

Challenge cup + £50.00 donated by FIDC for the fleece with the highest commercial value. Won by Shallow Harbour. Estimated value £10.50.

A challenge cup presented by Owen Summers for the farm with most points in all classes was won by Shallow Harbour farm.

Guess the weight of a ewe hogget, £25.00 prize from Southern Cross Social Club won by Robin Smith. Actual weight 52.7 kilos.

Guess the weight of ewe hogget fleece, £25.00. Donated by Lake Sulivan farm won by Fiona Rozee. Actual weight 6.75 kilos.

Guess the average micron from mid-side sample £25.00. Donated by the Argos Fishing Company won by Roger Edwards. Actual micron 21.1.

Winner of the under 21's sheep judging competition sponsored by the Department of Agriculture was won by Sarah Berntsen.

Additional Credits

Mrs Griz Cockwell and the Falkland mill both donated sweaters, these items were then auctioned for show funds by Roger Edwards ☺ F.I.G.A.S kindly agreed to fly fleeces free of charge ☺ Tony & Lynn Blake and friends for the barbecue with meat supplied by Coast Ridge, Spring Point & Little Chartres ☺ Justin, Sasha & Ben for transforming the woolshed ☺ Doug Cartridge and the Department Of Agriculture for their assistance before, during & after the event ☺ The committee of the Southern Cross Social Club ☺ and not forgetting the residents of Fox Bay for being excellent hosts.

TAXING TIMES

by Hugh Marsden

While most will consider farm accounts to be an unwelcome distraction during this busy time of the year, only a select few can escape the fact that the Tax Office will shortly be passing on their annual season's greetings.

There are a few factors that need to be considered before we attempt to wind up the 1996 farm accounts:

1996 Assistance Programmes

Perhaps the most important point to remember is that any assistance received under the 3 Agricultural Assistance Programmes should be declared as income in the farm accounts and entered under " grants and subsidies" (if using the farm account book series.)

If any farm is unsure of the amount of assistance that it has received during the year, please contact the Department of Agriculture. We would be happy to provided the necessary information.

Gross Wool Receipts

Farmers are once again reminded to quote the annual gross wool receipts when completing the profit and loss account. As always, we would be happy to assist any farm that is unsure about how to calculate this figure.

When quoting gross wool receipts, be sure to record any corresponding wool marketing costs under "marketing expenses" in the account book.

Advances repaid from wool proceeds should be regarded as business loans and must not be deducted from the gross wool receipts figure.

Interest charged on an advance should be viewed as a business expense and entered under "interest and bank charges."

Further Advice ?

Should you have any other queries relating to your farm accounts or a desire to improve your basic accounting skills, please do not hesitate to contact the Department of Agriculture. The Income Tax Office should also be regarded as a helpful source of information regarding the current tax regime.

1997 RAM SALE / FARM OPEN DAY

by Owen Summers

It is intended that the annual Sale of National Stud Flock stock will be held on the 6th March at Goose Green followed by a Farm Open Day on the 7th March in the Fitzroy area (SS/6 Grazing Trial, Fitzroy Vegetable Production and F.I. Trust Tree Project) with the opportunity to discuss the Chief Executives Agricultural Policy Document that same evening. The plan at this stage is to fly West Falkland farmers to Goose Green on the day of the sale then overland to Stanley that same evening, next day would again be overland to Fitzroy and return to Stanley for the evening, ready for flights home from Stanley on the 8th. We will keep you posted as more details are available.

THE 1996 ESTANCIA SHEARING COMPETITION

a report of the day's events from Ailsa Heathman

Heavy rain in the afternoon & evening of the 28th of December started to make us feel nervous. The sheep were all crutched, sorted and under cover but memories of last years downpour were still fresh in our minds. Thankfully we got a nice day on the 29th and a great day out was had by all, with a good atmosphere prevailing.

There were no entrants for the junior shearing competition this year so we started off with heats in the intermediate class, 3 shearers in the first heat and 2 in the second. At the end of he day, Keith Dickson triumphed with 52.85 points off. Mark Summers was in 2nd place with 53.95, Jan Clarke 3rd with 54.25 and Kevin Clifton 4th with 58.56.

There were 20 entries for the open competition. The semi-finalists to emerge from the 5 heats were Hew Grierson, John Jones, Willie Dickson, Dave Gillett, Tom Kennedy, Paul Phillips, Fred Parker and Peter Mckay. Hew, John, Tom and Paul then made it to the finals and the end result was:-

1st	Tom Kennedy with	46.65
2nd	John Jones with	48
3rd	Hew Grierson with	48.75
4th	Paul Phillips with	51.15

This was quite an achievement for Paul to make it to the finals of the open after just three seasons of shearing. Hew Grierson was the fastest, 11 mins and 45 secs, just 6 seconds slower than the Estancia Competition record which was set by Hew in 1994. It may also be worthy of note that John and Hew have been in every final since the competition started in 1991.

Two new events added a bit of fun to the day. The wool handling competition was under the close scrutiny of Heidi Blake & Colleen Mowatt who initiated the event. Eight brave souls entered and had their efforts severely hen pecked by the two judges with Lisa Jaffray being declared the best wool handler. Harry Lewis was in 2nd place and Michelle Jones was 3rd. An unexpected prize was also given to Hew Grierson as the prettiest wool handler. The fact that he was the only male entrant had nothing to do with it as he swanned around the table in a blue dress and sheer black tights, complemented by rigger boots and orange lipstick!. The prizes for this event were kindly donated by Eurofishing.

The second new event was a team shear. After much deliberation it was decided to go for international teams; the two highest qualifiers for each country shearing together. This raised much excitement and encouragement from the spectators.

The winning team was our very own John Jones and Peter Mckay, followed by the second Falklands team of Paul Phillips and Andrew Smith. They had 36.87 & 41.14 points respectively. Hew Grierson and Willie Dickson were third with 45.41 for Scotland. Fred Parker and Greg Davidson were fourth for New Zealand with 45.95. Tom Kennedy and Robbie Mackellern were fifth for Ireland and bringing up the rear for Cumbria were Dave Gillett and Mark Fox. The first shearer of each team shore 3 wethers and the second guy shore 3 ewes.
Timmy Bonner won the prize for the cleanest pen of sheep. Mike and Jeannie Mckay were ever busy barbecuing their way through numerous sheep, but at least they weren't soaked this year. Donna, Mike Evans and family were also busy with their van and the bar was in the capable hands of Chris Clarke and his team. As usual many people helped in the back pens and the judges and the woolhandlers all had a busy day. Tony Pettersson became Brook Hardcastle's 'under study' and Murray Christie seamed to be everywhere keeping an eye on everything. Very grateful thanks to everyone and all who donated the prizes which Heidi Blake presented this year.

Keith Heathman & the hangi crew also delivered the goods at the end of the day & a lot of people stayed on to sample the cuisine.

The generous donors include:-

Lister shearing equipment Ltd ☯ Farmers association ☯ Port Howard ☯ Stanley Services ☯ Agricultural Department ☯ Falkland Islands Development Corporation ☯ Falklands Landholdings ☯ Mr & Mrs G.P. Smith ☯ Mr M Christie ☯ Falkland Farmers Ltd ☯ Falkland Islands Company Ltd ☯ Mr N Mckay ☯ Mr & Mrs P Goss ☯ Mr & Mrs T Phillips ☯ Mr & Mrs J. Jones ☯ Mr P.J. McKay ☯ Mr and Mrs R Binnie ☯ Mr R Alazia.

The prizes were distributed as follows:-

Open

1st	Lister challenge shield, a miniature handpiece, singlet, 1 pair of strides, a box of combs & £20
2nd	Lister medal, singlet, a box of cutters & £15
3rd	Lister medal, singlet, 3 combs & £10
4th	Fox bay mill jumper, a box of cutters & £5

Intermediate

1st	A pair of strides, 5 combs, a box of cutters & £20
2nd	T-shirt, 4 combs & £15
3rd	T-shirt, 3 combs & £10
4th	T-shirt, 1 comb & £5

Cleanest pen of sheep
Mowatt challenge mug, pendulum & £15

Team Event

1st	Challenge shield, 4 combs each & £25
2nd	£15 each
3rd	£10 each

NATIONAL STUD FLOCK - DECEMBER '96

a report from Gillian Phillips

Livestock

All of the ewe and ram hoggets and shearling rams were shorn in the new shearing shed at Saladero on the 20th and 21st December '96. All animals were in excellent condition. The average weights are as follows:

	Average body weight	Average unskirted fleece + belly	Average skirted without belly
Ewe hoggets	34.6kg	4.3kg	3.13kg
Ram hoggets	37.2kg	4.16kg	3.10kg
Shearling rams	44.7kg	5.3kg	4.03kg

General

The Saladero shearing shed is very close to being completed with the pen gates and a few other small jobs to be done. Everything ran very smoothly for the shearing of the young sheep.

RECIPES

These recipes have been sent to us from Ailsa Heathman at Estancia Farm, who say's that this pudding and fudge cake went down very well at the Quality Wool Assurance session.

CORNFLAKE PUDDING

Melt 4 ozs of margarine, 4 ozs chocolate and 4 tablespoons syrup together.
Stir in 4 ozs cornflakes and 4 ozs raisins. Press into a dish to cool. Top with an Angel Delight, whip or whatever and decorate if desired.

LIZ LEGG's FUDGE CAKE

You will need:

5 ozs Margarine 2 ozs sugar 3 ozs coconut (optional)
1 small egg 250g dgestive biscuits (crushed)

Melt margarine and sugar. Add egg, crumbs and cococut. Mix well and press into a 9 1/2" (approx) square tin. Chill to firm.

You will need for the topping:

4 ozs butter 4 ozs sugar 2 tablespoons syrup 4 tablespoons condensed milk

Melt butter, sugar, syrup and condensed milk and then bring to the boil and simmer for 7 minutes, stirring all the time. Pour over base and leave to cool.

Ideally, make this the night before so it has plenty of time to set.

AGRICULTURAL TRAINING SCHEME (YOUTH)

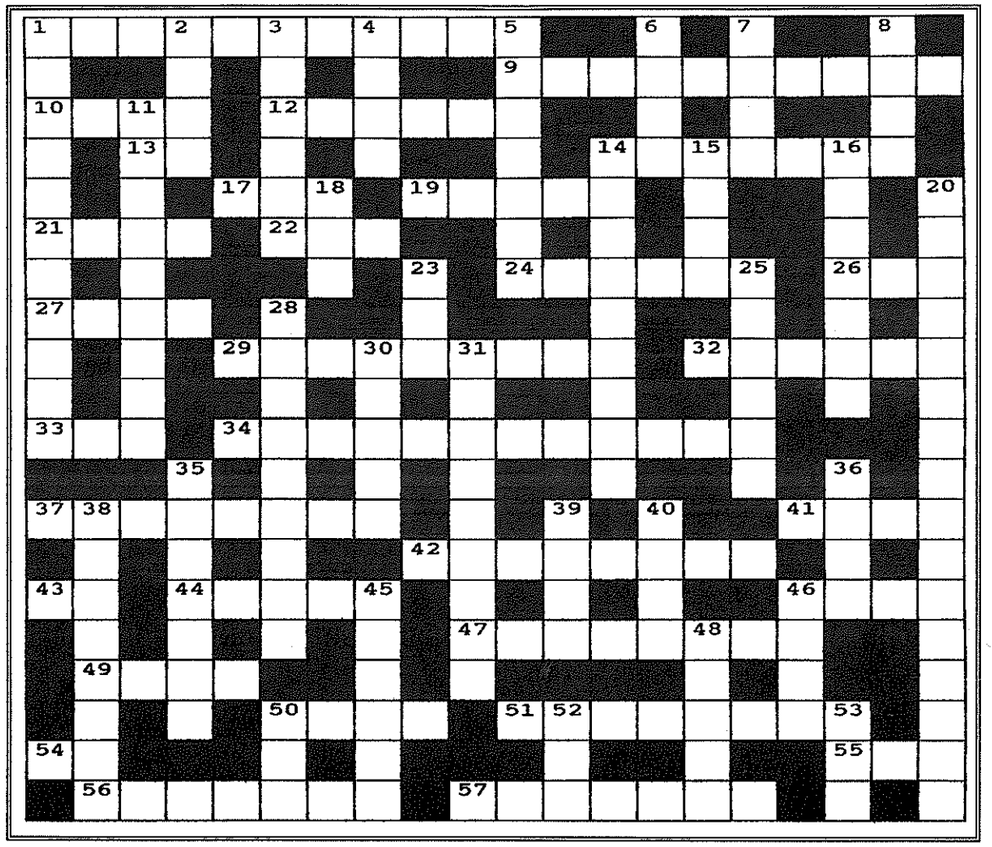
From Mandy McLeod (Training Officer)

The Agricultural Training Scheme for youth needs the support of farmers to be HOSTS to the young people in the Falklands that are keen to work in Agriculture. If you would like to be a host farm, please contact me on 27355 (work) or 21025 (home) for more information.

We have had three applicants so far from school leavers, to participate in the one year course (commencing after sports week).

These youngsters are our future!

THE JANUARY CROSSWORD



DOG DOSING DATES 1997

- **JANUARY - 13TH - DRONTAL PLUS**
- **FEBRUARY - 24TH - DRONCIT**
- **APRIL - 7TH - DRONTAL PLUS**
- **MAY - 19TH - DRONCIT**
- **JUNE - 30TH - DRONTAL PLUS**
- **AUGUST - 11TH - DRONCIT**
- **SEPTEMBER - 22ND - DRONTAL PLUS**
- **NOVEMBER - 3RD - DRONCIT**
- **DECEMBER - 15TH - DRONTAL PLUS**

CROSSWORD CLUES

ACROSS

1. FLAT OR STEEPLECHASE (5,6)
9. JOB
10. KNOWN AS
12. PRIMATE
13. AFTER CHRIST (1,1)
14. TYPICALLY A HORSE ENCLOSURE
17. BEER
19. GANDERS MATE
21. LARGE POND
22. LARGE DEER
24. WELDING CONDITION IF EYES NOT PROTECTED
26. ALE HOUSE
27. COLLECTED INFORMATION
29. IMMUNISE
32. FAIR HAIR COLOUR
33. SPEECH RESTRAINT
34. INFECTIOUS DISEASE, PARTICULARLY OF THE LUNGS
37. SLAUGHTER HOUSE
41. RISE TO MATURITY
42. FLOW CONTROL VALVE (4,4)
43. TEAL INLET (1,1)
44. GROUP OF LIONS
46. FLUID DROP FROM THE EYE
47. PIPE ALLOWING THE RELEASE OF ANY EXCESS
49. LEG JOINT
50. BLUE OR STRAWBERRY
51. WATER SYSTEM
54. PUBLIC RELATIONS (1,1)
55. DONKEY
56. PUNCHY HORSE?
57. TARMAC

DOWN

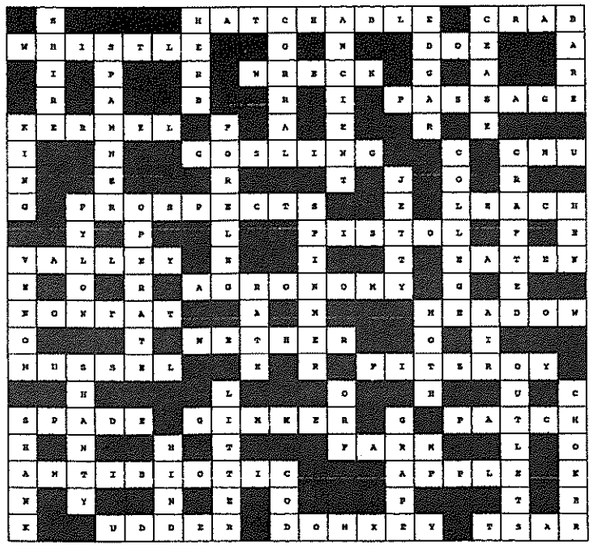
1. MANNED KITE SPORT (4,7)
2. KERNEL
3. BROKEN STONE
4. ROUND LOAVES
5. VENETIAN BOAT
6. CHRYSALIS
7. BEACH MATERIAL
8. FOOT ATTIRE
11. THE CONTROL OF SALES
14. LARGE HORSE
15. TYPE OF CART
16. LIVING IN A TENT
18. FAIRY BEING
20. COMMUNICATIONS COMPANY (5,3,8)
23. COMMON DISEASE
25. SIGN UP
28. INFLAMATION OF THE LUNGS
30. ENCOURAGE WITH SHOUTING
31. PERIOD OF MILK PRODUCTION
35. HELD WITH METAL PINS
36. SOFT CREAMY CHEESE
38. HORSE EYE GEAR
39. VAULTED CHURCH RECESS
40. OVERHEAD COVERING
45. GO ABOARD
46. ONE OF TWO BORN TOGETHER
48. DESCRIPTIVE TAG
50. BRAZILIAN CAPITAL
52. LONG EARED RABBIT OR GOAT
53. STUDENTS TAKING A YEAR OUT

SOLUTION

TO THE

DECEMBER

CROSSWORD



DEPARTMENT OF AGRICULTURE SEMINAR PROGRAM

DATE/TIME	LOCATION	SPEAKER	TITLE	CHAIRMAN
FRI 10/1 2.30	D.O.A.	MANDY MCLEOD	AGRICULTURAL TRAINING IN THE FALKLAND ISLANDS	OWEN SUMMERS
FRI 24/1 2.30	D.O.A.	ANDREW COE	INTERESTING CLINICAL CASES	DIANA ROBERTS
FRI 7/2 2.30	D.O.A.	JONATHAN SEAR	TUSSAC RESTORATION - CURRENT KNOWLEDGE AND THE WAY FORWARD	BOB REID
FRI 14/2 2.30	D.O.A.	OWEN SUMMERS	RURAL DEVELOPMENT ASSISTANCE SCHEME	MANDY MCLEOD
FRI 28/2 2.30	D.O.A.	AIDAN KERR	PROGRESS IN WHITE GRASS RESEARCH	BOB REID
TUES 4/3 2.30	D.O.A.	BOB REID	LEGUMES - THE NEW WAVE	ANDREW COE
FRI 14/3 2.30	D.O.A.	DOUG CARTRIDGE	WOOL PRODUCTION AND MARKETING	BOB REID

WOOL PRESS

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IN THIS ISSUE:

PLUS ALL THE REGULAR FEATURES AND MORE!

The Wool Press is published by the Department of Agriculture. Editors: Mrs C.Rowland & Mrs M.McLeod

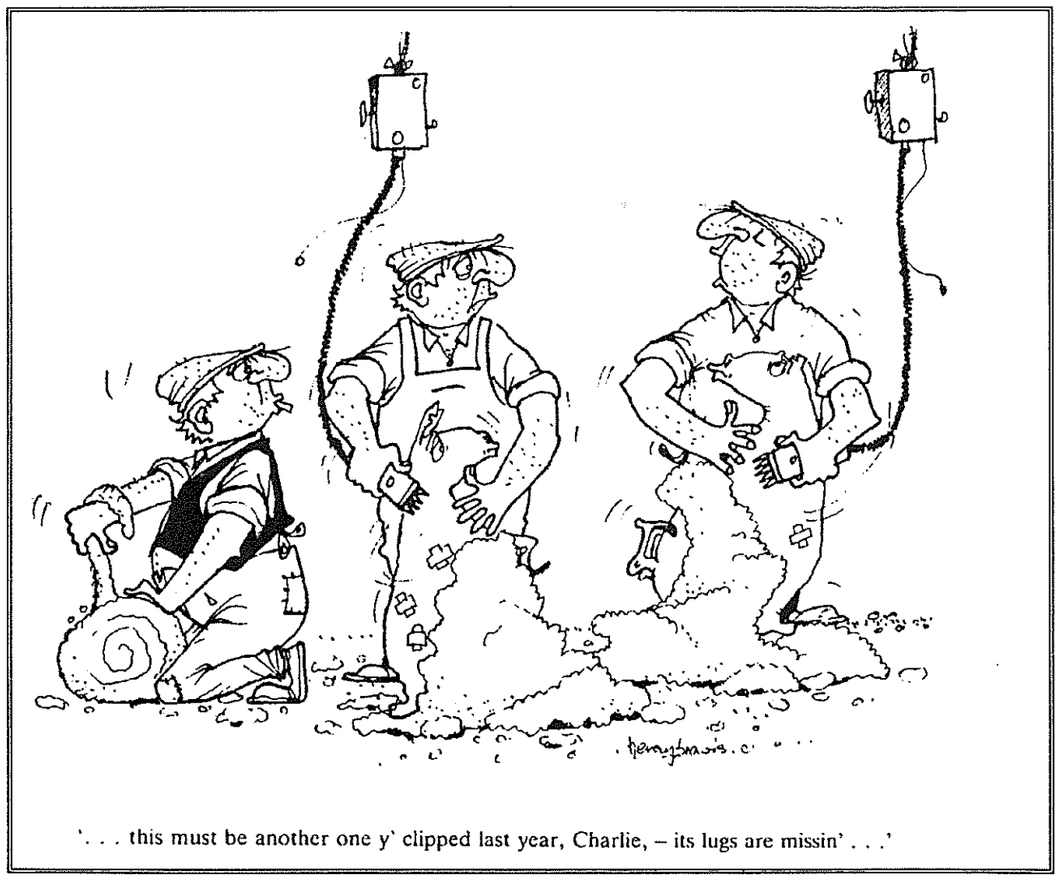
EDITORIAL

Sports week is almost upon us again, with shearing well underway and the season almost over. At least the weather has sorted itself out this year with not too many days of wet sheep about.

The department will shortly have a few more new faces around again; Sean Miller the Sheep Husbandry Specialist and Robin Thompson the Beef Expert are hoping to arrive around mid/end of February. Sean and Robin will be living and working at Goose Green. Hopefully we will have an introduction from them both for the next WOOL PRESS.

The itinerary for Dr Alan Low (Tree Specialist) has been included in this WOOL PRESS.
If anyone would like to talk with Dr Low just call the department and an appointment will be made, or get incontact with him when he is in your area.

HAVE A GOOD SPORTS WEEK



'. . . this must be another one y' clipped last year, Charlie, – its lugs are missin' . . .'

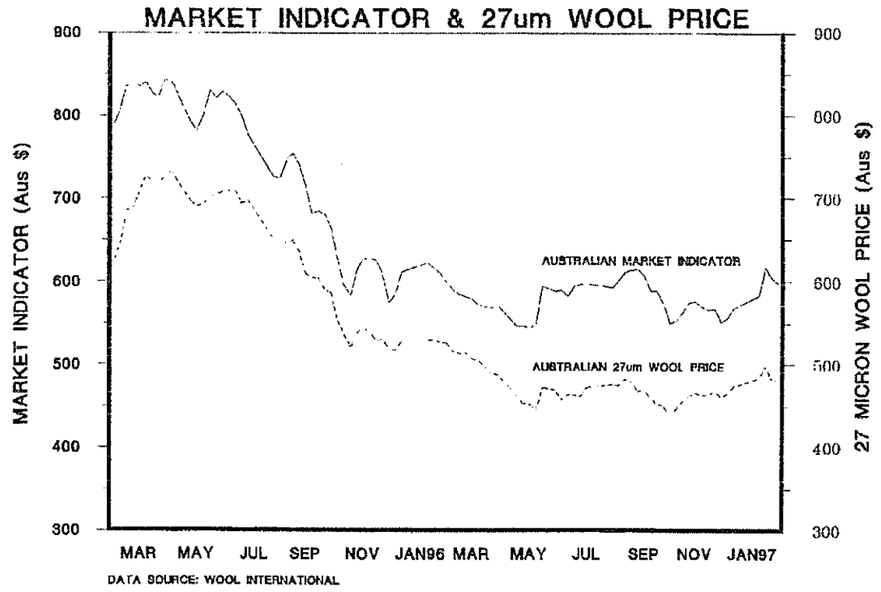
THIS MONTH'S CONTRIBUTORS

Bob Reid	Director of Agriculture, DoA
Charlene Rowland	Snr. Agricultural Assistant, DoA
Mandy McLeod	Adviser Economics/Training Officer, DoA
Jonathan Sear	Research Student, Queens University, Belfast.
Aidan Kerr	Senior Scientist, DoA
Hugh Marsden	Farm Management Specialist, DoA

WOOL MARKET

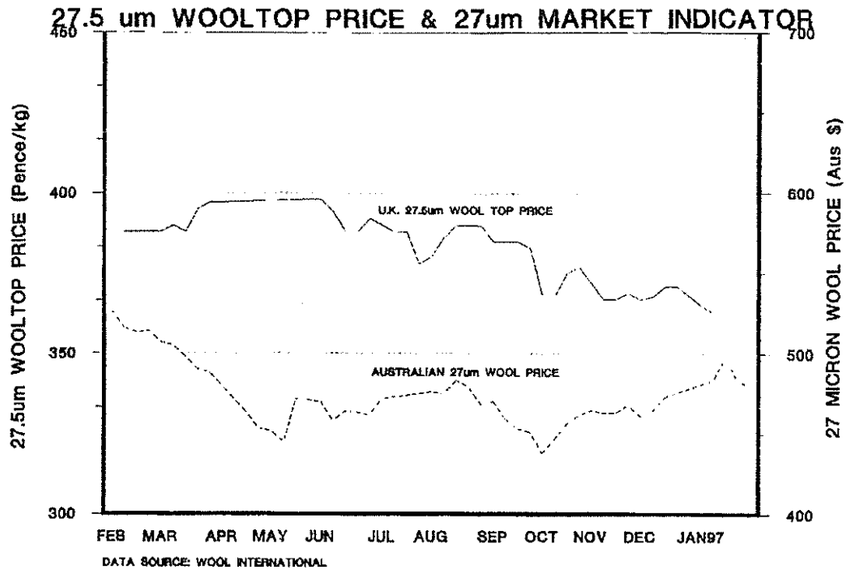
by Hugh Marsden

The Australian Wool Market had a positive start to the season with the Market Indicator actually rising above the critical break even price of 600 cents per kg. Prices tended to ease slightly at the end of the month with the Eastern Market Indicator closing at **598 cents/kg** on the 31st Janaury. Much of the rise can be atributed to a strengthening U.S dollar which makes Australian wool more competitiveley priced on the open market.



By way of contrast, the pound has been extremely strong and resulted in U.K (sterling) prices remaining relatively flat.

The 27um Indicator also rose during the month. It closed 7 cents higher at **480 cents/kg.**

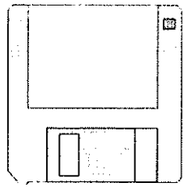


Reasonable stockpile disposal rates were achieved during the month with heavy selling mid-month having a negative affect on prices. New legislation has recently been introduced which allows Wool International greater flexibility in it's management of the remaining stockpile. The quarterly disposal rate has now been cut from 182,000 bales to 135,000 bales. The new legislation also provides for a higher disposal rate ceiling as and when market conditions permit. On the 30th January, the Wool International stockpile stood at **1,889,771 bales**.

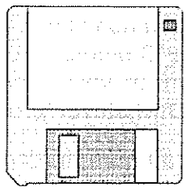
The Australian $ has continued to decline. On the 30th January, the rate was 1.5 cents higher over the month at **219.5 cents/£.** It is remarkable to think that just 8 months ago the $ was extremely strong at 198 cents/£. Regrettably, the weak dollar is not good news for the Falklands.

Argentinian Wool Production at lowest recorded level.

Faced with a continuation in the slump in wool prices, Argentinian wool production for the 1996/97 is projected to be at it's lowest level since records began 50 years ago. Since the early 70's wool production has fallen dramatically from 200,000 tonnes to it's current level of 68,000 tonnes. Whereas other Southern South American producers have little other options to sheep faming, Argentinian farmers are currently experiencing a green revolution and switching away from wool into other sectors such as the cereal sector and cattle ranching.



DO YOU USE YOUR DISKS WELL ?

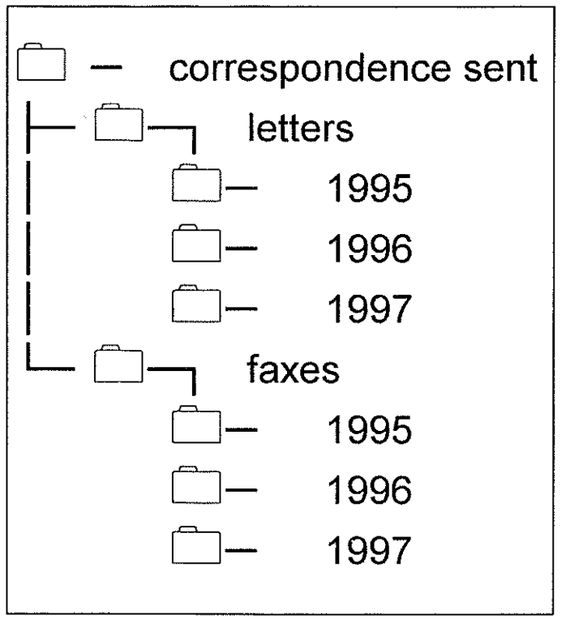


by Mandy McLeod

Disks are used to store information. Last month we looked at the different types of disks and their advantages and disadvantages. Once again, this article is primarily targeted at beginers, although I know of a fair few so called 'experts' who do not manage their storage space at all.

When you store something away you assume that at some point it may be needed again, otherwise you would just throw whatever it is away, wouldn't you ? If things are stored in their rightful places, they are easier to find when required. It's the same with computer documents. They just need to be filed (stored) in the right place, which is usually a matter of common sense.

Imagine that you are setting up a manual filing system, with which you can store and retreive documents easily. The filing cabinet has many divisions and sometimes, within those divisions are several 'folders'.



For example, you could have a file (division) called *correspondence sent.*

Within that file there could be two folders, one called *letters*, one called *faxes.*

Any letters and faxes sent would be filed accordingly.

You could even have further folders within the letter and fax folders depicting years, so that all letters and faxes for *1995* are kept separate from *1996* and *1997* etc.

In a manual system, this can get a bit 'bulky', but in the computer filing system the physical space taken up is very small (a disk).

If you have the Windows environment on your computer, you can look in file manager and see a display similar to the diagram above. In DOS there is not this facility unless your version has DOS SHELL which is similar to file manager.

New directories can be 'created' at any time. Somewhere in the 'pull-down menues in both File Manager and DOS SHELL will be the command 'make directory' or 'create directory'. Sub directories (those extra folders within the partition) are made by highlighting the particular directory that you want the sub-directory to be in and then creating a dirctory in the usual way.

If you don't have Windows or DOS SHELL, then you have to type in a command at the 'C prompt' (looks like this C>:) which comes up on your monitor when you first turn on your computer. A command that you can use to make a directory are: **MD\whatever you want to call it up to 8 characters**

Apart from making retreival of documents easier if they are filed well, there is also the advantage of using the disk space available more economically.

Floppy disks come in two sizes: 1.44 mb and 720 mb. If you make directories on the disk, you will find that it will store a lot more information. When it comes to backing-up to reduce the risk of losing valuable information, you will have less working disks to make back-up copies of.

Backing up is a vital part of computer use and safe storage of information. A disk (hard, floppy or CD) can cease to be 'readable' at any time, without warning. I persoally find that the best way to work is to use the hard drive of the computer as my working disk. This is the way I work.

I make a directory in the C drive called MANDY.

Anything that I save on the computer is saved to this directory. I can have as many sub-directories to MANDY as I wish. I use the C drive to work on because it works faster under certain commands (floppy disks tend to be slow because they are constantly trying to re-organise very limited space).

When I have finished saving my work to C:\MANDY I make at least one back-up copy on floppy disk. Because floppy disks (A) don't have the amount of space as the hard disk (C) it is easier to copy if you have your back-ups called by the different directories names.

Many people work solely on the hard drive (C) and do not have a good directory (filing) system. The result is a very cluttered hard drive with a real song and dance performance if you want to find a particular document that you worked on six months ago, and can't remember what you called it! (I think we've all been there at some point).

You can periodically remove documents or 'files' or even a complete 'directories' when you are absolutely sure that is never going to be needed again, so that you keep as much disk space free as possible.

Through the articles In the last 3 issues of the Wool Press, I have endeavoured to introduce those contemplating or just beginning with computers, to some of the basics. Computers are quite resilient to the uses we put them to when we are not quite sure what we are doing. The worst you can do is lose everything on the hard drive if you make a huge mistake, but if you are fully backed up on floppy disks (including your software), it is not a problem. You just re-install or copy it back onto the computer's hard drive.

If anyone has a particular area of computer use that they would like to be explained in the WOOL PRESS, please let me know and I'll do my best to find out. Likewise, if you have some information that you can pass on to others, send in an article.

I'll close with one final piece of advice:

ALWAYS BACK UP !!

STATISTICAL COMPARISON'S

by Hugh Marsden

The following set of statistics have been prepared to demonstrate that the Islands wool industry has made substantial progress since the onset of farm sub-division. They also suggest that in spite of a number of substantial set-backs, the performance of the industry continues to improve.

The analysis examined the "key area statistics" of the 11 subdivisions that have been created since the late 1970's. The performance of these farms has also been compared with those farms that have experienced little or no fragmentation of the original farm settlements. Farms in the latter category include:

All F.L.H farms, Berkley Sound, Gibraltar Station, Port Louis, Rincon Grande, Pebble Island and Port Howard.

Given that all these farms (with the exception of Pebble Island) are in local ownership, it would be inappropriate to view these farms as being a representation of the management system that would have occurred under a continuation of absentee ownership.

A comparison is made between the farms in 1978 (prior to the sub-division process) and the 5 year average 1992-1996 (post sub-division.)

Table 1: Comparison of greasy wool production 1978-1996

System of Farm Ownership	1978 Production (kgs greasy)	1992-1996 Average Production	% Increase (decrease)
Sub-divided farms	890,307	1,135,316	21.58
Non Sub-divided	951,086	1,146,195	17.02

The analysis demonstrates that the industry has achieved considerable success in increasing wool production and that the sub-divided sector has performed particularly well.

The performance amongst individual sub-divisions is interesting and shows that all farms have achieved a significant increase in wool production with the exception of Roy Cove:

Table 2: Comparison of Sub-division wool production 1978-1996

Original Farm Name	1978 Wool Clip (kg greasy)	1992-1996 Av. Wool Clip (kg greasy)	% Change in Production
Douglas	44,225	68,134	35.09
Fox Bay West	96,116	120,752	20.40
Green Patch	58,468	82,874	29.45
Hamilton Est	53,251	69,883	23.80
Hill Cove	119,929	129,137	7.13
Packes (Fox Bay E)	100,470	140,504	28.49
Port San Carlos	105,233	124,305	15.34
Port Stephens	88,813	121,560	26.94
Roy Cove	71,123	70,245	(1.25)
San Carlos	86,001	123,949	30.62
Teal Inlet	66,678	83,973	20.60
Total	890,307	1,135,316	21.95

Table 3: Comparison of No's sheep shorn 1978-1996

System of Farm Ownership	No's Sheep Shorn 1978	No's Sheep Shorn 1992-96 (average)	% Increase (decrease)
Sub-divided farms	250,329	299,792	18.95
Non Sub-divided	266,557	300,390	11.26

The table above demonstrates that the increase in wool production has been associated with an increased sheep numbers. The increase in sheep numbers has been greatest in the subdivided sector although this has resulted in lower increase in wool clip per sheep (see below)

Table 3: Comparison of wool clip/sheep 1978-1996

System of Farm Ownership	Wool Clip per Sheep 1978 (kg greasy)	Wool Clip per Sheep 1992-96 (average)	% Increase (decrease)
Sub-divided farms	3.66	3.79	2.77
Non Sub-divided	3.57	3.82	6.49

In next month's Wool Press we propose to analyse and compare other key indicators such as hogget mortality rates, lambing percentages and farm labour statistics.

1996 ASSISTANCE PROGRAM

(O.A.P Refund)

All farmers and employers of farm labourers are reminded that they are now able to apply for a reimbursement of O.A.P contributions that have been paid and cover the 6 month period (**1st July 1996 to 31st December 1996**.)

Claimants are requested to submit full proof of payment (i.e. stamped O.A.P card) to the Treasury. All applications should be addressed to the Financial Secretary (O.A.P Refund) and presented with a covering letter that clearly states your intention to claim a refund. The Treasury would be most grateful if farmers could provide them with their bank account details. Further advice regarding the refund procedure for the period 1st January 1997 to 30th June 1997 will follow in due course.

Employers are reminded that they are expected to pass on any employee related refunds to their employees.

It should be noted that the refund is only available to those farms which satisfy the conditions of the 1996 Assistance Program.

TESTING SOIL ACIDITY

by Bob Reid

On the morning of Saturday 25 January, the Department of Agriculture opened it's doors and offered to test the pH levels of the garden soils of Stanley. 20 people availed themselves and brought in their soil samples. Not suprisingley many samples were found to be very acid (pH 4.5 - 5.0) a few strongly acid (pH 5.0 - 5.5) and one actually made moderately acid - pH 6.2.

What does it all mean?

Well, certainly all the gardens in the first two categories had an urgent need for lime.

What does the Lime do?

In Layman's language it sweetens the soil which means that the acidity lessens, and not only does that satisfy the calcium requirements of a plant but also frees up the other nutrients present in the soil.

Next year we will repeat the process and assess just how much the individual gardens have improved. Hopefully by then we will have already seen bumper crops of celery, leeks, silver beet and spinach.

The Department of Agriculture would like to offer the same service and advice to our camp readers so contact me and I'll tell you how to prepare a sample.

FROM JIMMY FORSTER, BOLD COVE FARM

I will shortly be putting together my tag order for next season, including wool packs for the new Sunbeam, Lyco and small Donald's presses.

If orders could reach me before the end of February, I would be grateful.

Telephone: 42178 or fax: 42177

ITINERARY FOR Dr ALAN LOW - TREE SPECIALIST

The following camp visits have been arranged, if anyone would like speak with Dr Low, please contact him either at a camp settlement or call the department for an appointment.

February, 1997

Saturday 1st	Fitzroy Farm
Monday 3rd	Weddell Island
Tuesday 4th	Dunnose Head
Wednesday 5th	Port Howard
Thursday 6th	Carcass Island
Wednesday 12th	Teal Inlet
Friday 14th	Roy Cove
Saturday 16th	Hill Cove

WANTED TO PURCHASE

Wanted to buy - One round wool table with weighing scales.

If you can help - please contact: Susan and Ian Hansen of Main Point Farm.
Telephone/fax no. 41008

SCREWDRIVERS CAN BE GIVEN STICKING POWER

Source: ***Practical Farm Ideas***

Farm fingers and small fastenings such as the screws and nuts which hold together electrical equipment are often incompatible. Farm fingers are just too fat and clumsy to manipulate the little devils. Magnetic screwdrivers are a real help and the good thing is you don't need to buy special ones.

Magnetise your screwdriver by rubbing or stroking it in a single direction against a strong magnet. Loudspeaker magnets do a good job. Your screwdriver will lose its magnetism over time - but if you keep an old speaker handy you can always recharge it. The dodge saves a lot of frustration, but remember to keep the magnet away from computers and computer disks - it can wipe information off them faster than anything!

PRODUCT SPOT

DOSING GUN

Source: Sheep Farmer

A dosing gun, which takes the hard work out of injecting or drenching is being marketed in the UK by Richey Tagg.

Developed by Rembrook Development, the Air-o-Matic gun eliminates operator fatigue and dosing errors, ensuring the correct dose is delivered at a rate of one animal every four seconds. Extensive drenching trials show that sheep do not have the opportunity to spit out the dose because it is delivered so quickly.

Driven by compressed air supplied by a disposable liquid CO2 Mig welding bottle, a light press of the trigger delivers the prescribed dose and automatically reloads the gun for the next application. Each bottle of compressed air delivers around 3,500 x 10ml doses. The gun comes complete with a full gas cylinder in a light cloth holster, regulator, tubing and easily interchangeable injection or drenching barrels.

If anyone would like more information on this Dosing Gun, please contact:
Ritchey Tagg, Fearby Road, Sham, Ripon, North Yorkshire. HG4 4ES.

MONKEY WIRE STRAINERS

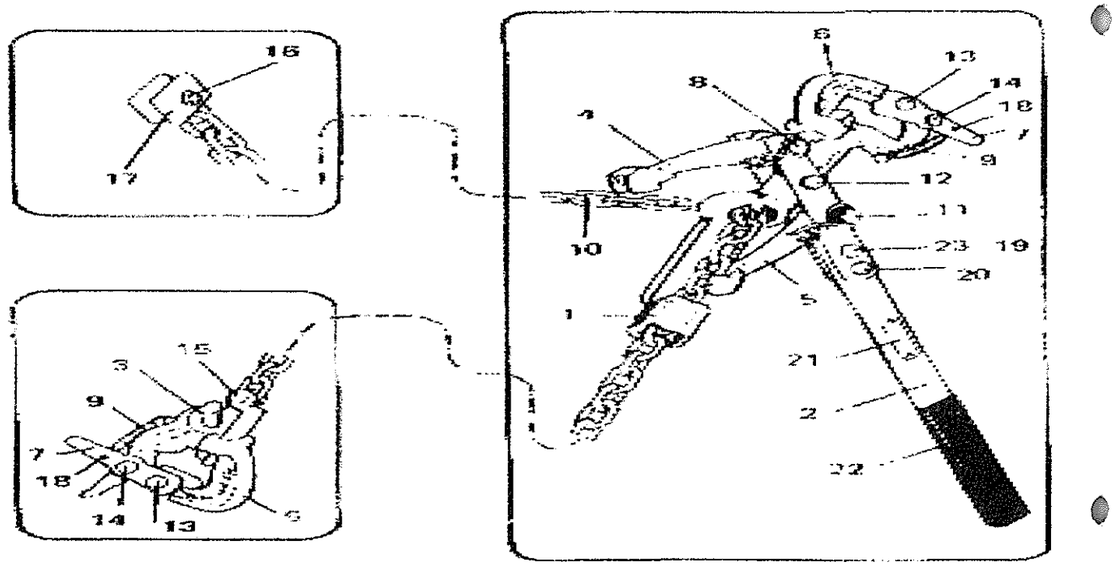
Heather Smith of Harps Farm, wrote to us explaining that some farmers are experiencing difficulties in obtaining spare parts for their Monkey Wrenches.

Heather has gone to the trouble of finding the parts, numbers and the supplier.

Address and fax No.

ABC Equipment,
The Greens, Clayton,
Doncaster
DN5 7DD or fax: (1977) 643103

I apologise for the poor quality of the diagram, but if you should have difficulty in reading the parts, please don't hesitate to give me a call.



Ref:	Description:	Part No:	Ref:	Description	Part No.
1	Main body	1401	13	Gripper pin	1413
2	Handle assembly	1402	14	Rivet	1414
3	Chain body	1403	15	Rivet	1415
4	R.H. pawl	1404	16	Nut and bolt	1416
5	L.H. pawl	1405	17	Chain end plate	1417
6	Grip jaw	1406	18	Rivet	1418
7	Gripper	1407	19	Rivet	1419
8	Spider web spring	1408	20	Rivet	1420
9	Gripper spring	1409	21	Instruction label	1421
10	Chain	1410	22	Handle grip	1423
11	Stepped rivet	1411	23	Split cotter	1424
12	Rivet	1412			

NATURE CONSERVATION

Law and Legislation

*A request from a farmer - that it would be a good idea to print in the **WOOL PRESS** the Legislation and Law of the fishing season, duck season, sanctuaries and reserves, protected and unprotected bird species.*

1. Sanctuaries and Reserves:

a. The Wild Animals and Birds Protection Ordinance 1964 creates wildlife sanctuaries. It is an offence to kill, injure or take any wild animal or bird, to introduce any carnivorous animal and to enter during specified prohibited periods without a licence issued by the Governor. There are sanctuaries at the following locations:

- The Twins (near Carcass Island)
- Low Island (near Carcass Island)
- Beauchene Island
- Middle Island (King George Bay)
- Volunteer Point and Cow Bay
- Cape Dolphin
- Bleaker Island
- Stanley Common and Cape Pembroke

b. The Nature Reserves Ordinance 1964 defines a nature reserve as being land reserved for the purpose of protecting and of providing under suitable conditions and control special opportunities for the study of and research into matters relating to the flora and fauna of the Falkland Islands. It is an offence to kill,injure or take wild animals, birds or plants from a nature reserve without a licence issued by the Governor. There are nature reserves at the following locations:

- Crown Jason Islands
- Sea Dog and Arch Islands
- Kidney and Cochon Islands
- Bird Island

2. Unprotected Species:

Dominican gull	Rat
Skua	Mouse
House Sparrow	Rabbit
Upland Goose	Carancho
Thin Billed Prion	Turkey Vulture
Hare	Fox

These species may be killed or taken anywhere other than on a sanctuary or reserves at any time.

3. Game Shooting:

The following species are named as Game species (Wild Animals and Birds Protection Ordinance 1964) but may only be killed during the period ***1 March to 31 July.***

Grey Duck	Pampa Teal
Chiloe Widgeon	Yellow Billed Teal
Paraguayan Snipe	

4. Egg Collection:

Penguin and Albatross eggs are protected by law(*Wild Animals and Birds Protection Ordinance 1964*) and a licence (obtainable from the Post Office) is required for their collection. The period when eggs of these species may be collected are as follows:

Albatross Eggs:	***1 to 30 September*** only
Gentoo Eggs:	***1 to 31 October*** only
Other Penguin Eggs:	***1 October to 31 December***

5. Salmon and Trout:

Salmon and trout may only be taken during the open season (***1 September to 30 April***) and only by by rod and line. A number of offences are created by the Trout and Salmon Regulations 1964.

- Trespass
- Exceed permitted catch (12)
- Fish without licence (obtainable from the Post Office)
- Use means other than rod and line
- Use unlawful bait
- Take juvenile or spawning fish
- Disturb spawning fish
- Offence in relation to Moody Brook

6. Protected Bird Species:

Both the Ruddy Headed, Brent Goose and the Striated Caracara are protected under current legislation (*Wild Animals and Birds Protection Ordinance 1964*). Such species may only be killed for approved scientific experiment, for humane reasons, or if a court is satisfied that the "action was necessary for the purpose of preventing serious damage or injury to domestic animals, crops, vegetables, fruit or any other form of property or to fisheries".

7. Marine Mammals:

All marine mammals (including all seal species) are protected by the law (The Marine Mammals Ordinance 1992) and no marine mammals may be deliberately killed or injured. Exceptions may be made if it can be proven that an animal was killed for humane reasons, or to prevent injury to a person.

VEGETATION RECOVERY ON BARREN ISLAND

by Jonathan Sear

Barren Island (south of Speedwell Island) has now been completely destocked for 6 years., I am of the opinion that the land had been severely overgrazed before all the sheep were removed. All vegetation had been lost from a wide coastal belt around the south of the island, which must earlier have supported good Tussac. The more central areas were also badly damaged, with the heavily grazed Diddle-dee giving very poor ground cover. This was made worse by wind blown Tussac peat inundating the vegetation.

I visited the island for a couple of days in late January, with the aim of assessing the rate at which the vegetation was recovering since the destocking. As it was the first time I had been there, I was not in a position to make direct comparisons. However I was able to get a general idea of progress, for example by looking at the state of plants on the edge of eroded areas, and by making comparisons with the 1956 aerial photographs.

The island is still in a bad state and so much peat has been lost that there are black beaches composed of nothing but peat dust. There are some signs of recovery, with eroded ground being colonised by Sorrel, and to a lesser extent Native Rush. However this regrowth is extremely limited when compared to the extent of bare ground, and at this rate we would probably be looking at more than a century before most of the bare ground was well vegetated again.

The fact that Sorrel, which is not very palatable, is dominating newly revegetated ground, is not as worrying as it sounds. Almost any plant cover is better than bare ground, because it helps to prevent further erosion, and every indication is that after a number of years growth Sorrel will have improved soil conditions sufficiently for other species to take over.

A few other plant species were recolonising the eroded ground on Barren, although only in small numbers at present. These included Tussac, which had successfully established even on stony, but loose, subsoil. It seems, from the lack of younger plants, that establishment only occurs in favourable years, probably those with wetter summers.

Given the large area of land which has been degraded, and the small labour force in the Falklands, it is likely that most revegetation will have to be by natural regeneration. From this point of view, the slow rate at which the vegetation is recovering is not encouraging. However it may be that the re-establishment rate will increase as the species best able to recolonise become more common and set more seed. Large areas may be recolonised at once, if a year with favourable conditions (a wetter than normal spring/summer) occurs. Whilst many aspects of the situation on Barren may have implications for the rest of the Falklands, comparisons must be made with caution because of variation in rainfall, and causes of erosion, for example.

Human intervention may play a useful role in increasing the rate at which natural regeneration takes place, although I believe that the most important action land managers can take is to keep stock out of regenerating areas. Other steps may include Tussac planting, or collecting and sowing the seed of pioneer species. More research is needed into the most worthwhile species and methods to use.

My most significant impression, however, was that prevention would have been so much easier than cure. Whilst the temptation to graze as many animals as possible, in order to maximise short term profits, must have been high, the effect of the stock on the vegetation, not just whether there is enough to eat, must be considered if the land is to be kept in good condition, and hence profits maximised in the long term.

CLIPPIE DEATHS 1996-97

From Aidan Kerr

I would be grateful if sheep farmers could let me know the dates, numbers and weather conditions when large numbers of clippies died as a result of poor weather. The information will strictly be confidential and could be used to refine and improve the Sheep Farmers wind-chill prediction system provided by the Meteorological Office at MPA.

Please contact me on 27355 or by letter. Thanks.

WHITEGRASS RESEARCH - SUCCESS IN POLAND!

by Aidan Kerr

Regular readers of Wool Press may recall an article in Vol. 55 June 1994 concerning research being conducted on Whitegrass by Professor Poskuta of the University of Warsaw, a renowned international authority on photosynthesis (the growth process of plants). His interest followed a paper given by Jim McAdam and Fiona Wilson (Queen's University of Belfast) at the European Grassland Conference in Finland in June 1992.

Fiona and her colleagues had found that unlike most grasses, Whitegrass grew better in water logged soils than drained soils and that nitrogen (a key plant nutrient) applied as fertiliser reduced its growth.

After some discussions Professor Poskuta agreed to begin some joint work on the physiology of Whitegrass with Jim at Queens and in Poland funded by European Community Grant.

After four years the results of the research are about to be published in a top scientific journal. The paper, by Prof. Poskuta, Jim and two other Polish collaborators, compares the photosynthetic and respiratory characteristics of the 'bog or tussock' form with the 'lax' form of Whitegrass. The main conclusions were that the taller and more vigorous performance in the islands of the 'bog' form compared to the 'lax' form is due to the former's higher rates of photosynthesis, higher content of photosynthetic pigments (e.g. chlorophyll) and lower rates of dark respiration.

While this information may be of little direct benefit to sheep farmers here and now it does help explain the differences between both types of Whitegrass and adds more clues to the Whitegrass puzzle! The next step could be to determine why or how this difference occurs. Undoubtedly publication of the work in an international journal will improve the international image of the islands as well as that of the researchers. Overall it has been a successful liaison.

RECIPES

GRAN'S JAMMY SHORTBREAD

300g (10oz) butter
100g (4oz) caster sugar
375g (12oz) plain flour
Pinch of salt
Jam to sandwich biscuits together

Knead all ingredients until formed into a smooth dough. Roll out on a lightly floured board approx. 0.5cm (0.25in) in thickness. Cut out with a plain cutter into round biscuits. Place on a baking sheet and with a small round cutter cut holes in the centre of half the biscuits.

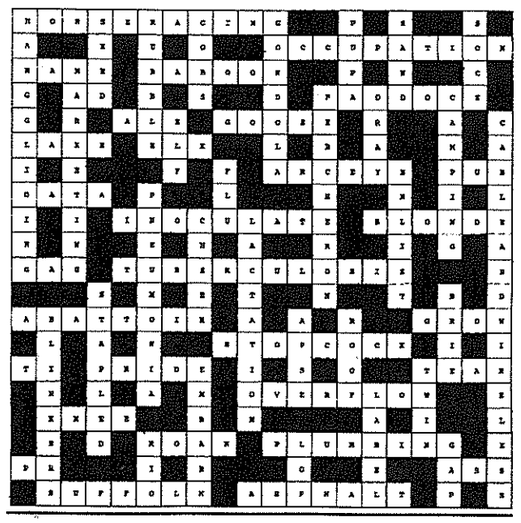
Bake in a slow oven, 150C (300F or Gas 2) until set, cooked and just golden. When cold sandwich together with your favourite jam.

PIPED SHORTBREAD SWIRLS

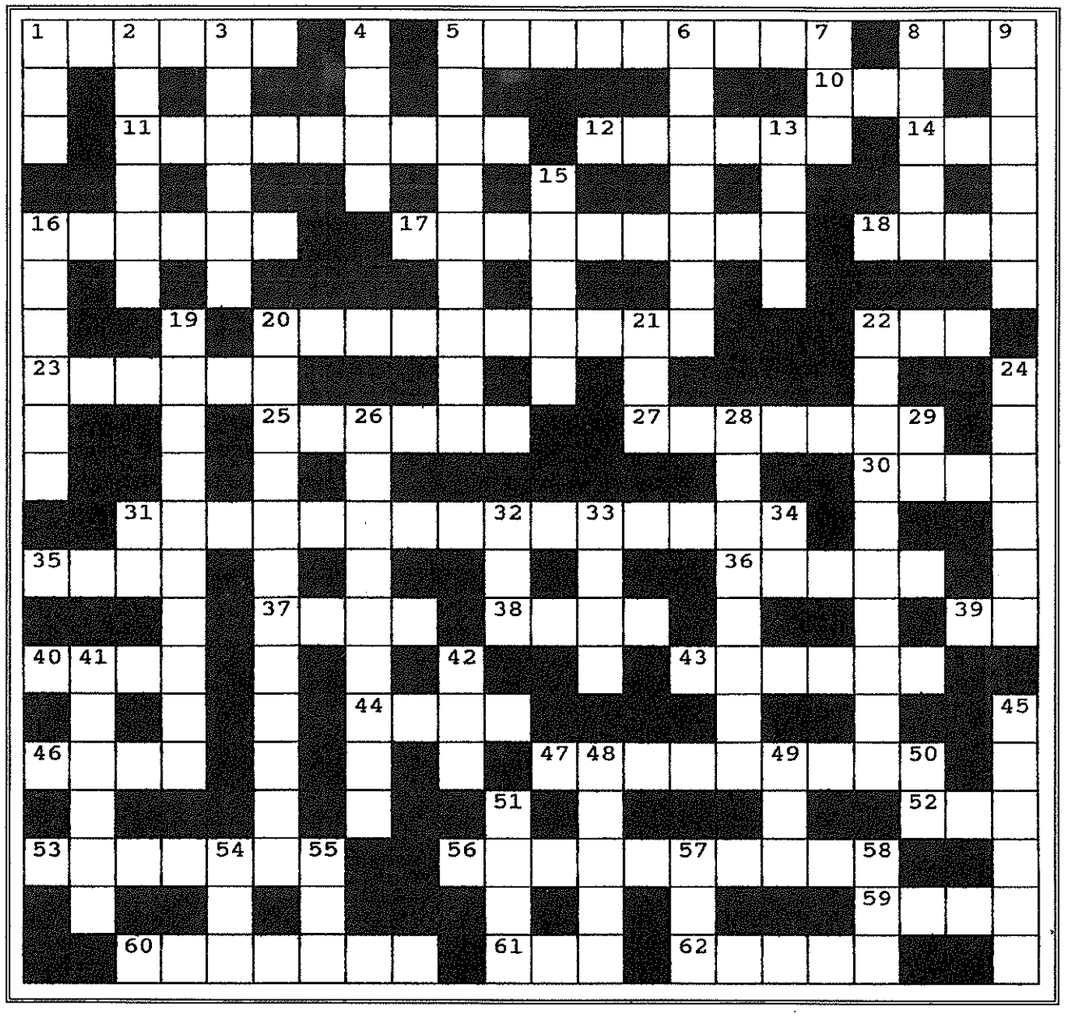
100g (4oz) chopped butter
100g (4oz) icing sugar
185g (6oz) plain flour
75g (3oz) sour cream
4 teaspoons lemon juice
2 teaspoons grated lemon rind
The flavour may be varied to taste replacing lemon with orange.

Put all ingredients into a processor, process until a smooth dough is produced. Place into a piping bag fitted with a large nozzle. Pipe small swirls onto a greased baking sheet, leave room for spreading. Bake at 190C (375F or Gas 5) for 10-12 minutes.

SOLUTION TO JANUARY'S CROSSWORD



THE FEBRUARY CROSSWORD



ACROSS

1. REAR OR LOWER PORTION
5. STATE OF HEALTH, PHYSICAL FITNESS
8. MALE CAT
10. MINERAL SOURCE
11. USING OR NEEDING CONCENTRATED EFFORT
12. CLEVER AND PERCEPTIVE
14. A GROUP OF WHALES
16. GROOVED WHEEL USED WITH A ROPE OR CHAIN
17. WORM TREATMENT
18. PLANT PART
20. MAGNIFYING, LAB TOOL
22. SUPPLIES EVERYDAY MILK
23. PRETENDING
25. CLOSE TO
27. PUTTING THE RAMS OUT
30. TO INVALIDATE ALTERNATIVE
31. ENTERPRISE
35. YOU WRITE WITH THIS
36. DECORATIVE MAT FOR PLATES
37. A CONTENTED CAT SOUND
38. NOT BFBS
39. ALTERNATIVES
40. A LITTLE ISLAND
43. SHARP OR SOUR
44. PART OF BODY BETWEEN LEG AND HIP
46. MALE PIG
47. ISLAND WITH TWO OWNERS
52. EGG
53. CUT AND PREPARE MEATS
56. FIRM THAT SUPPLIES MATERIALS AND LABOUR
59. HORSE FEED
60. BODY WASHING VESSEL
61. HIGH ROCKY HILL
62. THIS FILM HAS LANDED

DOWN

1. A HEAVY ROD OR INGOT
2. FIT TO EAT
3. HANDPIECE PART
4. TO CORRODE
5. USED FOR PRE LAMB SHEARING
6. WHEEL DRIVEN BY FLUID OR GAS
7. SLIGHT TIP OF THE HEAD
8. INDIAN TENT
9. TO CHANGE
13. MOST OF US GET THIS AT THE END OF THE MONTH
15. LIGHT MEAL
16. VAST GRASSY PLAINS
19. A PERSON WHO CONDUCTS AN AUCTION
20. CONIFEROUS TREE WITH SHARP STIFF LEAVES
21. MINING PONIES
22. INVOLUNTARY SPASM
24. BURROWING MAMMAL OF THE WEASEL FAMILY
26. LARGEST ISLAND IN THE WORLD
28. MAKES, PROVIDE, GROWS
29. TO PROCEED
31. SHORTENED FOR A DOCTOR
32. INVITRO FERILIZATION
33. RESPECT FOR A PRIEST OR MONK
34. OPPOSITE TO YES
41. A NEW POPULAR VEHICLE IN THE FALKLANDS
42. APPARATUS FOR DRILLING OIL
45. HARSH HUSKY VOICE
48. TO GO IN
49. TO ALLOW OR PERMIT
50. TO PREFORM OR EXECUTE
51. VEHICLE FOR TRAVELLING ACROSS WATER
54. SITS ON YOUR HEAD
55. DETERIORATE
57. A TAILLESS MONKEY
58. A SMALL EUROPEAN DEER

SUN PREVENTION FACTOR CREAMS

By Sally Blake of Hill Cove

Something that may be of interest to folk who work outside, and find that high SPF creams leave a thick white mask on the face.

Boots sell an Australian made product called Suu Seuse and I have found it excellent. It is a milk rather than a cream, SPF 30 for 200 ml sells at £9.95 and also Suu Seuse lip balm SPF 20 is very good.

SEMINARS

The next scheduled seminars at the Department of Agriculture for February 1997, is as follows:

Friday 2nd	at 2.30	Jonathan Sear	Tussac Restoration-Current Knowledge and the way forward.
Saturday 8th	at 8pm	Dr Peter Wilson	Erosion in the Falklands - Causes and Timing.
Friday 14th	at 2.30	Owen Summers	Rural Development Assistance Scheme.
Friday 28th	at 2.30	Aidan Kerr	Progress in Whitegrass Research.

Everyone is welcome

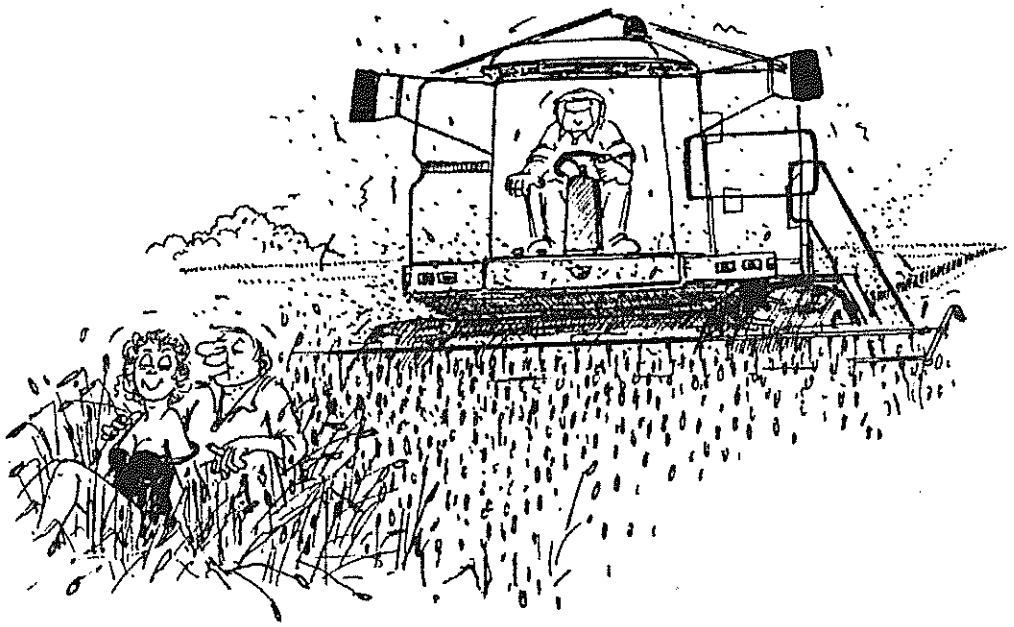
Public Seminars

Australasian Pasture Innovations - Ideas for Falkland Agriculture?

Come along and listen to a presentation given by Bob Reid (Director of Agriculture), followed by open discussion on Agriculture in the Falkland Islands.

Where?	When?	What Time?
Stanley Community School	Thurs. 6th Feb	7.30 pm.
Hill Cove Hall	Mon. 10th Feb	7.30 pm.
Fox Bay Social Club	Tues. 11th Feb	7.30 pm.
Goose Green Hall	Mon. 17th Feb	7.30 pm.
Douglas Settlement (Whitney's)	~~Tues.~~ 20th Feb Thurs.	7.30 pm.

Everyone is Welcome



'So how was it for you, darling? Personally I feel the earth's still moving!'

WOOL PRESS

ISSUE 88 MARCH 1997 RETAIL PRICE £1.00

IN THIS ISSUE:

PLUS ALL THE REGULAR FEATURES AND MORE!

The Wool Press is published by the Department of Agriculture. Editors: Mrs M. McLeod & Mrs C. Rowland.

EDITORIAL

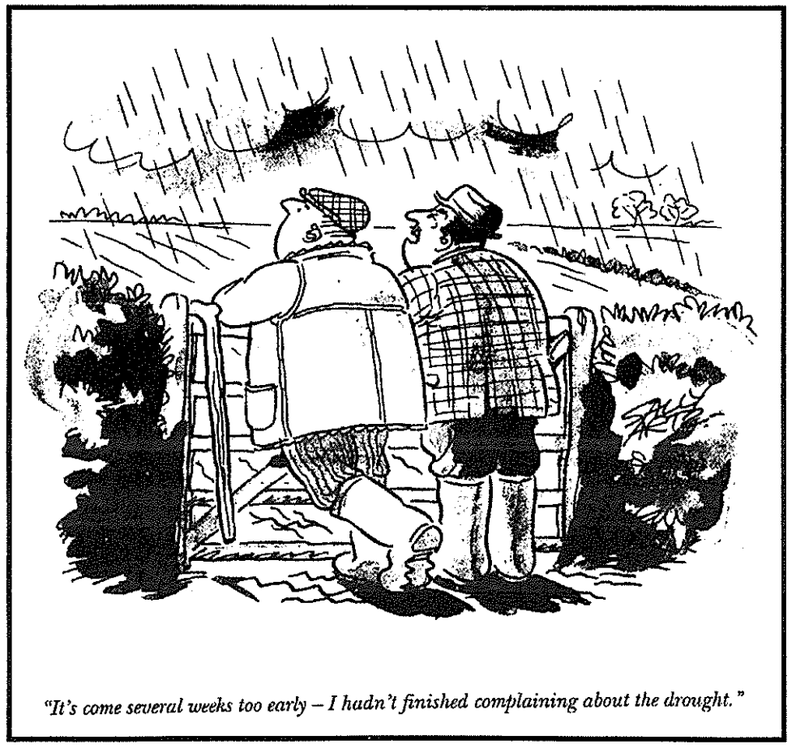
I hope everyone has had a well deserved rest and enjoyed this year's Camp Sports Week. The National Stud Flock Sale at Goose Green and the Open Day at Fitzroy are in the first week of this month. We will have a report on both days events in the next issue.

During February Bob gave an interesting seminar to several audiences around the Islands. Following on from the discussions after the talk, Bob is doing a series of articles providing interested farmers (or in my case - amateur gardener) with further information and explanation on fertilizers. The first this month is titled 'BASIC FACTS ABOUT FERTILIZERS'.

Well .. What about Gillian? She has taken up a college course in Tasmania and by her faxes she has settled in amicably. We wish her all the very best and miss her giggles around the Department. In the same month as Gillian's temporary departure, we say hello and welcome to Sean Miller and Robin Thompson who will be living and working at Goose Green. They will introduce themselves with articles in the next WOOL PRESS ! We are sorry also to say good bye to Jonathan Sear and wish him well in the future.

A brief questionnaire has been sent out to all farmers and accompanies this WOOL PRESS. I would be grateful if you could take the time to reply. All issues also have an up-dated index.

This cartoon says a lot about our weather this year (and human nature) !!



"It's come several weeks too early – I hadn't finished complaining about the drought."

THIS MONTH'S CONTRIBUTORS

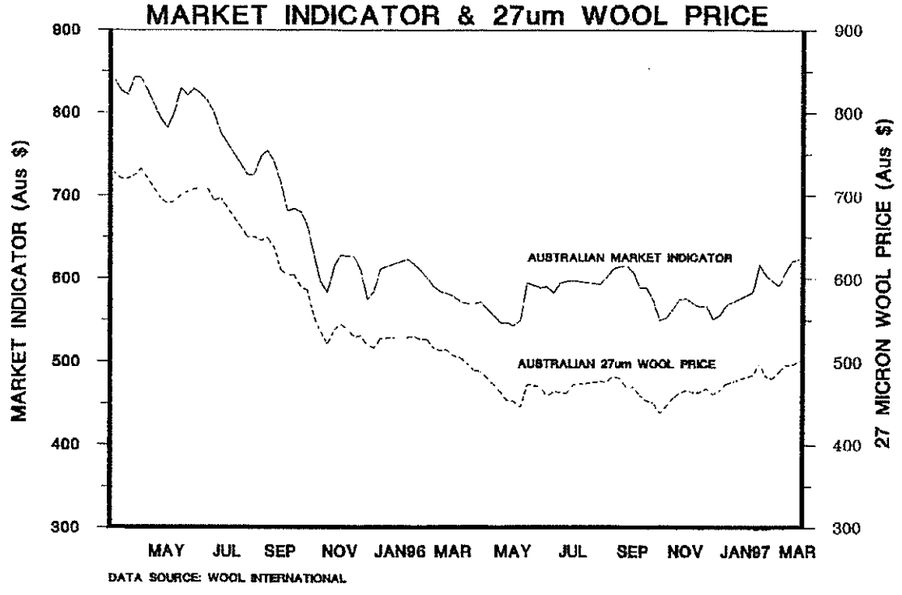
Hugh Marsden	Farm Management Specialist, DoA.
Andrew Pollard	Trainee Agriculturist, DoA.
Bob Reid	Director of Agriculture, DoA.
Jonathan Sear	Research Student, DoA / QUB
Michelle Marsh	Farmer's daughter, Shallow Harbour Farm, West Falkland.
Aidan Kerr	Senior Scientist / Agronomist, DoA.
Andrew Coe	Senior Veterinary Officer, DoA.
Richard Wagner	Economist, Treasury Department

WOOL MARKET

by Hugh Marsden

The Australian wool markets have had another positive month with prices for all categories making steady progress. The reduction in the Wool International stockpile disposal rate has clearly brought the market back into a better balance.

On the 28th February the Australian market indicator closed 26 cents higher over the month at **624 cents/kg clean**. This figure represents the highest level since October 1995.



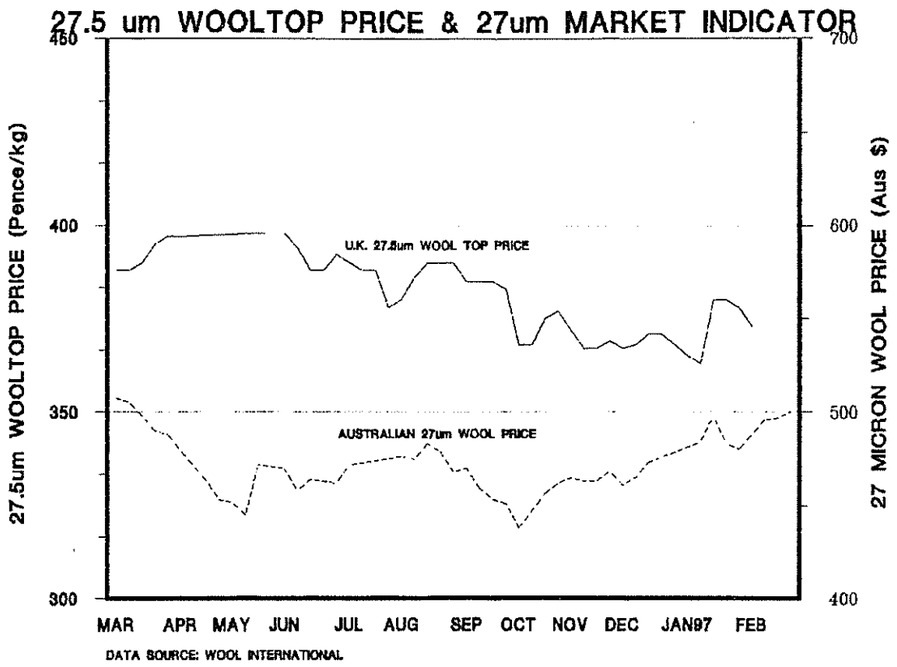
Another interesting feature of recent weeks has been the steady increase in the margin between fine and coarse Australian wools. Such a trend is normally associated with a sustained period of recovery in market conditions.

The 27 micron Indicator has also had an encouraging month rising by 20 cents over the month to close at **500 cents/kg clean**. This figure represents the highest level since March 1996 and a continuation of a five month period of sustained market recovery.

Wool International stockpile disposal rates have been significantly reduced in recent weeks and reflect the lower legislated disposal rate of 135,000 bales per quarter. The upper limit on quarterly disposal rates has been substantially increased to 350,000 bales which should ensure that the stockpile is eliminated well before the legislated diposal date of 31st December in the year 2000. On the 28th February the Wool International stockpile stood at **1,849,330 bales.**

The Australian $ has strengthened by 2 cents/£ to close at **217 cents/£** on the 28th February.

U.K wool prices should be expected to react positively to the stronger Aus $ and apparent recovery in the Australian market.



REMEMBER THE NOAH'S ARK (FALKLAND VERSION)?

Mr Tim Harris of Harris Associates is visiting the Falklands for a week at the end of March (19th to 26th inclusive). He was very instrumental in the transportation of the Noah's Ark animals in 1983, including the selection and overseeing of correct protocols for export / import.

During his stay he is going to give a seminar in Stanley about the Noah's Ark. He is also keen to meet / talk to anyone who had animals imported. If you would like to make contact with him, please call me at the Department of Agriculture and I will see what I can arrange. *Mandy*

CULLING SHEEP

by Andrew Coe

Winter will be with us sooner than we would like so I though I would say something about the problem of thin old sheep on poor quality winter grazing.

You all know that times can be hard during the Winter with the available herbage being of very poor quality and unable to meet even maintenance requirements for much of the time. Put a few inches of snow on top of it for a week or two and the situation becomes even worse. Now I realise that it's no good me going on about supplementary feeding because at present it's simply not available at a cost that would make it economic to feed it to anything but the most valuable stud sheep. What I will go on about however is the need for you as stockmen and women to make sure that your sheep are given the best possible chance of making it through that lean period until the Spring grass starts growing again. How can you be expected to do that?

Firstly, the sheep have got to be in decent condition in the Autumn because like I say, in most cases they're only going to lose weight between the Autumn and the Spring. The most important factor in having your sheep in good condition in the Autumn is to have the stocking rate right so that there is sufficient available food in the Summer to enable sheep to lay down some fat stores. In addition, not weaning lambs too late gives the ewes a chance to pick up in condition before the Winter sets in.

Secondly, sheep need to be culled/discarded in the late Summer on the basis of age, teeth and/or condition. I know from bitter experience that it doesn't matter what you do to old sheep in the way of extra feeding or whatever, you simply can't turn them into young sheep. Similarly, if you find sheep with broken mouths or individual sheep in poor condition then those should be culled regardless of their age. Yes I know that some thin sheep will get fat again given time but it is the exception that proves the rule, most of them don't and if you hold onto them they will simply add to the statistics of sheep turned out one season that didn't turn up for shearing the next. I would urge everyone to cull rigorously before the Winter, by doing so you will be making great improvements in animal welfare and you will be improving the nutrition and hence increasing the survival chances and wool clip of those sheep that rightly should be retained.

Thirdly, for those of you who do need to buy in sheep to keep your numbers up I would make the following plea: Please buy the best quality sheep in terms of age and condition, that you can afford. 50p or £1.00 culls may seem like a bargain but a 30 or 40% mortality soon knocks the profit out of them. In animal welfare terms it is unacceptable to turn such sheep out in the Autumn to face a hard Winter.

In summary then, try to follow the three principles below and I believe you will have fitter, healthier sheep of which you can be proud plus a more profitable farming enterprise.

1. **Get the stocking rate right. Don't overstock the land.**
2. **Cull VIGOROUSLY in the Autumn on the basis of age, teeth and body condition.**
3. **Buy the youngest, fittest replacement sheep you can afford. Don't buy culls that are fit only for dog food.**

For those of you already carrying out the above .....Keep up the good work!!!

LIGHT AT THE END OF THE LONG DARK TUNNEL?

by Hugh Marsden

Readers of the Wool Press may be interested in a recently published set of forecast scenarios for the wool industry through to the year 2000. The forecast has been prepared by the Economist Intelligence Unit in its special report on the World Wool Markets. It should be noted that the Economist intelligence unit has an excellent reputation in publishing economic reports on a wide range of commodities and industries.

Production and consumption figures are quoted in 000 tonnes (clean.) Prices are in Australian cents/kg clean and are based on the Eastern Market Indicator (as published every month in the Wool Press wool market report.)

The worst case scenario is based on a rapid expansion in wool production in Australia following an improvement in the relative improvement in the wool market.

The best case scenario assumes a dramatic increase in the volume of Chinese wool imports.

Table 1: Worst Case Scenario

	1993/94	1994/95	1995/96	1996/97	**1997/98**	**1998/99**	**1999/00**	**2000/01**
Production	1633	1546	1520	1537	**1569**	**1657**	**1702**	**1745**
Consumption	1646	1620	1652	1691	**1725**	**1789**	**1821**	**1856**
Average Price	542	780	650	700	775	725	**700**	**700**

Table 2: Central Scenario

	1993/94	1994/95	1995/96	1996/97	**1997/98**	**1998/99**	**1999/00**	**2000/01**
Production	1633	1546	1520	1537	**1569**	**1607**	**1652**	**1694**
Consumption	1646	1620	1652	1691	**1725**	**1765**	**1797**	**1832**
Average Price	542	780	650	700	775	**800**	**825**	**850**

Table 3: Best Case Scenario

	1993/94	1994/95	1995/96	1996/97	**1997/98**	**1998/99**	**1999/00**	**2000/01**
Production	1633	1546	1520	1537	**1570**	**1607**	**1652**	**1695**
Consumption	1646	1620	1652	1691	**1789**	**1765**	**1797**	**1833**
Average Price	542	780	650	700	**850**	**900**	**850**	**825**

While the forecasts do not envisage a return to the "heady days" of the mid-1980's, I feel they do portray a reasonably optimistic picture of the future. The last thing the industry needs is a massive explosion in prices. Such a situation would only encourage manufacturers away from wool and increase the demand for competing fibres.

SOME BASICS ABOUT FERTILIZER (Part 1)

by Bob Reid

Most farmers in the Falklands know that to get crops and grass to grow they need some fertilizer. However, they are often unaware of exactly which fertilizer they need, on which plants it will work, what response they will get and for how long, so a few basics are in order.

All plants require nutrients taken from the soil and these are essential for growth. These elements are often described as belonging to two groups - the major nutrients - which are reflected in kilogrammes per hectare (pounds per acre) or - minor nutrients, often called trace elements, which are needed in grammes per hectare (ounces per acre).

Nitrogen (**N**), phosphorous (**P**) and potassium (**K**) are the three elements usually sold as fertilizers. The other three, calcium (**Ca**), magnesium (**Mg**) and sulphur (**S**), are just as essential, and when they have to be supplied because soils contain too little, they are also fertilizers. Our peaty soils are very low in **N** and **P** but generally have adequate levels of **K**. Put simply, we need **N** to promote green, leafy and productive grass, **P** to produce healthy clover and **K** to ensure that the energy supplied by the sun is well utilised by the plants. Our soils are chronically short of **Ca** but it is a very expensive element to apply in the Falklands.

The minor plant nutrients include iron (**Fe**), manganese (**Mn**), zinc (**Zn**), boron (**B**), copper (**Cu**) and molybdenum (**Mo**). The needs of crops and pastures and their abilities to extract these elements from soils vary greatly, and any deficiencies are difficult to diagnose under field conditions. In general terms **Mn** and **Cu** deficiencies occur on some peat soils, and **Mo** deficiency is found when legumes are grown on acid soils.

The nutrients needed by crops and pastures are taken by the roots from the soil. Three sources that are important in replenishing the stock of soluble nutrients that the roots draw on are:

1) rain 2) soil reserves 3) fertilizers.

Rainfall can supply appreciable amounts of nutrients but obviously the proportion will vary from country to country. Small amounts of **N** are often reported during thunderstorms, but unfortunately not enough to increase growth significantly. **S** is the most important nutrient supplied by rain and where sulphur free fertilizers are used in well - leaked soils, rain is the only source. It is well supplied in the northern hemisphere, usually coming from industrial pollution, but is often below critical levels in the southern hemisphere.

Where no fertilizers or manures are used, the soil is the immediate main source of all nutrients except sulphur. As you would expect, soils derived from nutrient rich rocks, or supplemented by basic volcanic ash, are inherently better supplied with nutrients than those derived from nutrient poor rocks. Unfortunately, Falkland Islands soils are the latter.

Then there are nutrients from fertilizers. Water from crops and animal manures have been used for thousands of years and are still important in many countries. These organic fertilizers also include materials that can be crushed so fine that they eventually release their essential nutrients. Such products are rock phosphate, animal bones, gypsum etc.

Modern methods of fertilizer manufacture now offer the farmer a whole range of products to solve his plant nutrient problem.

Most fertilizer elements are sold either solely or in mixtures, thus a bag marked:

20 : 10 : 10

Contains 20 kg **N**, 10 kg **P** and 10 kg **K** for every 100 kg applied.

for comparison

Nitram **34.5 : 0 : 0** (only supplying **N**)

Superphosphate **0 : 16.5 : 0** (only supplying **P**, but **S** as an impurity)

Sulphate of Potash **0 : 0 : 50** (only supplying **K**)

Compare these figures with animal manures using the same ratio;

Horse manure	**0.7 : 0.3 : 0.6**
Sheep manure	**1.4 : 0.2 : 1.0**
Fowl manure	**1.6 : 0.4 : 0.4**

(average figures only)

When, what and how to apply will be next in this series about fertilizers.

SAND-BLASTER MADE FROM PIPE FITTINGS

Source: Practical Farm Ideas

A simple sand blaster can be made from an iron tee piece. Direct air from a compressor into the tee through a 1/8 inch orifice and make an outlet which is also 1/8 inch diameter and 2 to 3 inches long.

The venturi effect sucks sand in through the right angle pipe, and is sufficient to work well with a hose of around 2 feet in length. Improvements can be made to the design by having the sand hose enter the venturi at an angle. A partial diverter plate fixed in the tee piece will have the same effect. An air supply at 50-60 psi is needed for success.

MORE STATISTICAL COMPARISONS

from Hugh Marsden

1. **Lambing Performance**

Perhaps the one disappointing aspect of sub-division has been the loss of reproductive performance on sub-divided farms. Such a loss of productivity was perhaps inevitable given the manner in which farms were divided at sub-division. The dispersal of breeding flocks from traditional lambing grounds to other areas was bound to cause a decline in performance.

The loss in lambing performance also seems to have occurred on the established farms although it should be remembered that the figures quoted below do include the appalling 1995/96 season statistics.

Table 1: Comparison of Lambing Performance 1978-1996

System of Farm Ownership	1978-1990 Average Lambing %	1992-1996 Average Lambing %	% Increase (Decrease)
Sub-divided farms	64.88	54.91	(15.36)
Non Sub-divided farms	66.79	64.85	(-2.90)

Data Source: Falkland Islands Farming Statistics

Table 2: Original Comparison of Sub-division Lambing Percentages 1978-1996

Original Farm Name	1978 - 1980 Average Lambing (%)	1991-1996 Average Lambing (%)	% Change in Lambing Percentage
Douglas	49.97	46.78	(6.38)
Fox Bay West	62.42	50.21	(19.56)
Green Patch	73.96	61.52	(16.81)
Hamilton Est	62.11	56.81	(8.53)
Hill Cove	65.05	64.84	(0.32)
Packes (Fox Bay East)	70.26	59.90	(14.74)
Port San Carlos	74.04	61.93	(16.35)
Port Stephens	58.74	47.78	(18.65)
Roy Cove	64.66	62.16	(3.86)
San Carlos	67.38	49.72	(26.20)
Teal Inlet	64.63	50.05	(22.56)
Total Sub-divisions	64.88	54.91	(15.36)

Data Source: Falkland Islands Farming Statistics

Given this decline, perhaps it might be an opportune moment for the Department to investigate ways of reversing the trend? If lambing percentages could be increased, the proportion of dry sheep could be increased resulting in an increased wool clip per sheep. It could also allow for an increase in the number of surplus sheep available for the abattoir.

An obvious shortcoming of the current system is the inability to identify and isolate those ewes that are habitual non-breeders. With the recent developments in the area of sheep recording technology we may soon have cost effective means to identify and isolate offenders. This would enable a more rigorous culling policy to be employed on farms. The opportunities to do this are probably greatest on smaller farms where more intensive flock management systems should prevail.

It is also possible that a shift towards greater specialisation into dry/breeding flocks could also provide an opportunity for some to reverse this decline? Regular readers of the Wool Press will be aware that there has been much debate recently regarding the advantages of greater specialisation in flock types i.e. dry flocks/breeding flocks. The Law of Comparative Advantage would suggest there would be benefits to both buyer and seller if greater specialisation did occur. The one major shortcoming of the system as it stands at present (and what has recently been proposed in the Wool Press) is that the buyer usually has no say over the breeding policy of the seller. Clearly a sheep bred for good Falkland land is not necessarily suited to harsh Falkland land ! The following suggestions are put forward as ways of enhancing the transfer of sheep between farms.

1. Farmers should be prepared to enter into a more formalised contract between buyer and seller.

2. The seller must accept a greater willingness to adapt the farm breeding program to suit the requirements of the purchaser.

3. The industry should not expect the Department of Agriculture (or other F.I.G body) to create or impose market conditions. The initiative behind any transfer must come from the industry itself.

4. The Government should be prepared to act as an honest broker between buyer and seller and be prepared to meet any short term cash-flow difficulties. This is undoubtedly an area where the Rural Development Assistance Scheme could be used to great effect?

5. Potential buyers and sellers should be more pro-active in advertising individual requirements.

6. Perhaps the most important ingredient of any increased trade is trust.

2. Hogget Mortality Rates

In contrast to the loss in lambing performance, it appears that some sectors of the industry have made significant progress in reducing the incidence of hogget mortality. This development should be welcomed as hogget losses represent an enormous drain on the profitability of the business.

Table 3: Comparison of Hogget Mortality Rates 1978 -1985

System of Farm Ownership	1978 Hogget Mortality Rate	1991-1995 Hogget Mortality Rate	% Increase (Decrease)
Sub-divided farms	19.32	15.68	(18.84)
Non Sub-divided arms	18.87	14.09	(25.33)

Data Source: Falkland Islands Farming Statistics

WORM UPDATE.

By Jonathan Sear

There was only a very small response to the worm appeal in the January 1997 Wool Press. However, I was still able to send a few worms to the United Kingdom, where they were examined by a zoologist at Lancaster University.

A very large, reddish purple specimen was brought into the Department by Dennis Middleton of Stanley. This was found in his garden at Dolphin Cottage and was identified as *Lumbricus terrestris,* a British species which I expect was accidentally introduced to the Falklands.

Lumbricus terrestris is however a very desirable species. It comes to the soil surface at night to feed on dead plant remains, which it drags into its burrow. This activity improves the soil structure and helps to break down organic matter into nutrients which are available for plants to take up again. Therefore its presence is very beneficial to plant growth.

Lumbricus terrestris could well be quite widely distributed in the gardens of Stanley, and possibly elsewhere in the Islands. Whilst mature specimens are often around 20cm long, immature individuals can be much smaller. This is certainly a worm to be encouraged. Leaving mulches of organic matter on the soil surface and avoiding the use of pesticides whenever possible will help to boost earthworm numbers. Intolerance of acidic conditions is likely to be the factor limiting the potential of this species for improving conditions in camp.

This is the only species for which I have a positive identification. However some of the worms I found in peaty ground behind the department building were thought to be from the family Glossoscolecidae. This is interesting because most of the 200 species described from this family come from tropical forests in Central and South America. The only wide ranging species in this family does not match the characteristics of the Falklands specimens.

It is quite possible that these worms could be of an as yet unknown species, although we are still a long way from confirming this. No work has been done on the Islands' earthworms before, and it could be that these are the same worms that people have reported finding in the middle of camp whilst cutting peat. It would certainly be interesting to find some mature specimens and show them to an expert on the Glossoscolecidae.

However, from an agricultural point of view these worms are unlikely to be as beneficial as species such as *Lumbricus terrestris.* This is because they are smaller, and tend to spend most of their time below the soil surface, where they feed on plant material which is already well decayed.

I have only touched on the issue of earthworms in the Falklands. There is certainly a lot more that could be done, from both agricultural and natural history viewpoints, as and when someone has the time to devote to it.

FALKLAND ISLANDS WOOL SALES

by R. C. Wagner, Treasury Department.

Richard has kindly supplied this interesting table to the Wool Press.

YEAR	QUANTITY KILOS GREASY	TOTAL VALUE £	PER CENT CHANGE VALUE	AVERAGE PER KILO GREASY	5 YR. AVE. PER KILO GREASY	YIELD	AVERAGE PER KILO CLEAN
1978/79	2,148,181	£2,675,774		£1.25		65.00%	£1.92
1979/80	2,222,727	£2,479,674	-7.33%	£1.12		65.00%	£1.72
1980/81	2,116,818	£2,615.752	5.49%	£1.24		65.00%	£1.90
1981/82	2,195,800	£3,070,986	17.40%	£1.40		65.00%	£2.15
1982/83	2,398,600	£3,592,462	16.98%	£1.50	£1.30	65.00%	£2.30
1983/84	2,531,600	£4,166,857	15.99%	£1.65	£1.39	65.00%	£2.53
1984/85	2,536,800	£4,419,954	6.07%	£1.74	£1.52	65.00%	£2.68
1985/86	2,748,100	£3,628,257	-17.91%	£1.32	£1.52	65.00%	£2.03
1986/87	2,194,734	£3,406,963	-6.10%	£1.55	£1.55	65.00%	£2.39
1987/88	2,400,437	£4,253,687	24.85%	£1.77	£1.60	65.00%	£2.73
1988/89	2,276,290	£4,450,477	4.63%	£1.96	£1.66	65.00%	£3.01
1989/90	2,615,058	£3,310,026	-25.63%	£1.27	£1.56	65.00%	£1.95
1990/91	2,610,349	£2,352,218	-28.94%	£.90	£1.47	65.17%	£1.38
1991/92	2,791,569	£3,055,502	29.90%	£1.09	£1.37	60.46%	£1.81
1992/93	2,520,854	£2,923,718	-4.31%	£1.16	£1.26	65.26%	£1.78
1993/94	2,537,909	£3,111,440	6.42%	£1.23	£1.13	63.97%	£1.92
1994/95	2,415,699	£4,234,266	36.09%	£1.75	£1.22	65.17%	£2.69
1995/96	2,324,870	£3,504,252	-17.24%	£1.51	£1.34	65.24%	£2.31

These statistics have been used for reports to the EEC. However the sources vary from year to year and they are not entirely consistent. The sales figures do not correspond to production figures. The years represent the wool clip or production. The sales are on a calendar basis with the year of selling being the later year quoted.

1979-1990 Actual Yield not known - assumed to be 65%

Yield Low in 1991/92 due to volcanic dust.

ERRATUM

SUN PREVENTION FACTOR CREAM

I must apologise to Sally Blake of Hill Cove for giving the wrong name to the Sun Prevention Factor Cream in last month's edition of the Wool Press.

The correct name is 'Sun Sense'

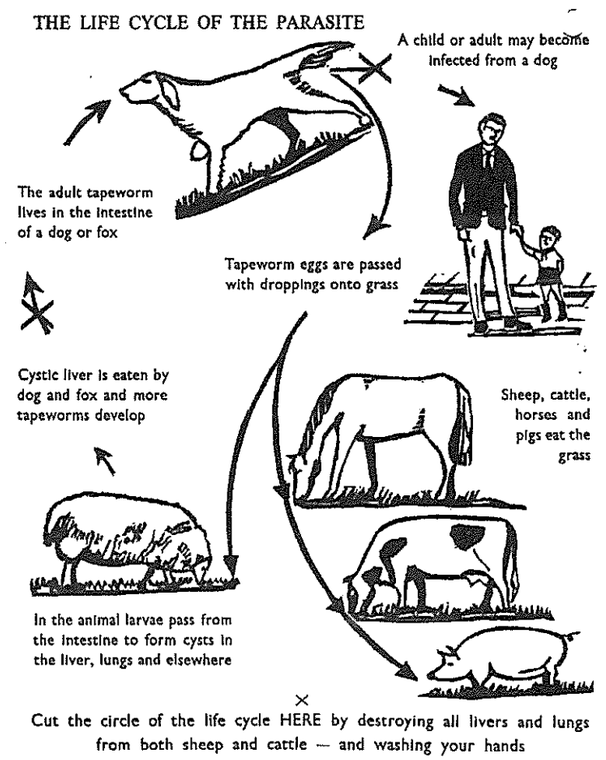
IS YOUR DOG A HEALTH HAZARD?

from the Veterinary Section

ECHINOCOCCOSIS - also known as hydatid disease - is a chronic disease of sheep and other herbivorous and omnivorous animals. It is characterised by the formation of variable-sized cysts on the internal organs or central nervous system. The disease is world-wide and generally endemic in many regions. It inflicts significant costs on the sheep industry in prevention, eradication, condemned carcasses and human infection. It is also a disease that can be readily controlled by timely and effective worming of dogs, particularly the farm dog.

Sheep acquire the infection during grazing and harbour the cysts at all times. Infection rates can be particularly high when the sheep are gathered around settlements if infected dogs have been running loose.

The main source of infection for sheep is usually the farm dog. The dog passes on the disease through its faeces which become dispersed causing the eggs, which are immediately ineffective, to be distributed over the ground. Although sheep generally avoid grazing areas contaminated by dog faeces, their disposal enhances the likelihood of the eggs being ingested by grazing animals and a heavily infected dog can pass on the disease to sheep over a wide area.



Once in the sheep's gut, the eggs hatch. They penetrate the intestine wall, entering the bloodstream to be carried to the liver, lungs, or other parts of the body. They then lodge and change into a cyst that becomes full of protoscolyxes. If the sheep then dies on the hill and is not buried or removed from scavenging animals, the cysts may enter the digestive system of any dog or other animal preying on the carcass. Once inside the scavenger the tapeworm lodges in the gut of the animal. There it develops and if not treated, eventually reaches a stage where it releases ineffective eggs via the faeces to infect more grazing animals.

As well as being a cause of concern for animal health and losses through condemned carcasses at the abattoir, sheep farmers should also be aware of the risks that they and their families face from the disease. It is a zoonotic organism, that is a disease which may be caught by humans as well as animals.

Human infection usually results from association with dogs. Children are particularly liable especially if dogs lick their faces. Transfer of eggs on the hands from an infected dog's fur is also a means of infection. Dog handlers including shepherds and vets, run equally high risks if the dogs they work with are not treated against hydatidosis.

So how can you protect your flock and also yourself and your family?

Continue 6 weekly dog dosing. If your dog vomits the tablet later, contact the Veterinary Office and ask about the injectable form of 'DRONCIT'.

Stop your dogs from scavenging. Ensure that offal from killed sheep or cattle is disposed of in the required manner, i.e. either stored in a sealed container for a minimum of 28 days or burnt. Make sure that you do a thorough offal check for any cysts before disposal.

LUPINS JOIN PENGUINS IN THE FLORAL FALKLANDS

Source: The Daily Telegraph, 17 February 1997

This article was printed in The Daily Telegraph, although most of you have probably read it, for those who haven't I thought I would print it in the Wool Press. The article is highlighted with a picture of Gentoo penguins and pictures of Lupins.

Quote:

The rugged landscape of the Falkland Islands is to be transformed into a "rainbow of colour", writes David Brown, Agriculture Editor.

More than 800 different plants and flowers including red, blue and white lupins from the United States, yellow-flowering lotus plants from the Faroe Islands and grasses and clovers from Turkey, Norway and Sweden are to be imported as part of a programme to improve the soil fertility and increase organic food production.

The scheme, which will be carried out over the next three years, is the brainchild of Robert Reid, who was appointed recently as Director of Agriculture for the Islands. "We are talking about a real rainbow mixture here", Mr Reid said yesterday.

"In the past people have been trying different ways of getting plants to grow better here. I've decided that it's better to change the plants. We are looking at the problem a different way."

The new plants will be grown in trial plots to find out which grows best in the often windswept and inhospitable landscape. The clovers and other plants will add nitrogen to the soil as well as providing quality grazing for livestock. The lupins will be used as animal food. *Unquote.*

Dr Alan Low

by Aidan Kerr

On behalf of Dr. Alan Low (DoA, Forestry Consultant) I would like to thank all those people who kindly accommodated and assisted us during Alan's recent visit to the Islands. The success of his visit should be borne in the establishment of several shelterbelts by the DoA at selected sites over the next 2-3 years. We hope that Alan can return briefly in early spring and again between April and June 1988 and regularly thereafter.

If anyone requires advice on tree planting, please contact me initially. Given sufficient notice it may be possible to arrange an advisory visit by Alan to farms intending to establish a shelterbelt.

Please note that tree growing is featured highly on the Departments Open Day on March 7th at Fitzroy Farm.

RECIPES

by Michelle Marsh of Shallow Harbour Farm

GINGER PUDDING (Serves 4 - 6)

2 tablespoons golden syrup
6 oz (175g) unsalted butter or soft margarine
6 oz caster sugar
6 oz self raising flour
2 - 3 tablespoons ground ginger
2 - 3 tablespoons milk.

- Butter the inside of a 1 litre (1½ pint) pudding basin and pour golden syrup into the base.
- Cream the butter, margarine and sugar, until light and creamy, add eggs, a little at a time and mix well.
- Sift the flour and ground ginger together and fold into the mixture in three batches, if necessary add a little milk to make a soft dropping consistency.
- Pour into the prepared basin, cover with grease proof paper and steam for 1½ - 2 hours.
- Turn out the pudding on a hot serving dish - serve hot with syrup or custard.

DEVIL'S FOOD CAKE (Serves 8)

5 tablespoons cocoa powder
1 egg yolk
1/2 pint milk
4 oz soft butter
12 oz caster sugar
1 teaspoon vanilla essence
2 eggs
9 oz flour
2 teaspoons baking powder
1/4 teaspoon bicarbonate of soda
1/2 teaspoon salt

- Cook gently, cocoa, egg yolk and half the milk until thick. Allow to cool.
- Cream butter and sugar until fluffy (in a separate bowl) add vanilla then the eggs, beat into the cocoa mixture.
- Sift the flour and baking powder, soda and salt, fold into the creamed mixture with remaining milk.
- Turn mixture into two sandwich tins, dividing the mixture between them, bake for 30 minutes.
- Remove from the oven and cool in the tins for 5 minutes before turning onto a wire rack.

For the filling:

12 oz plain chocolate
6 oz unsalted butter
3 egg yolks
12 oz icing sugar

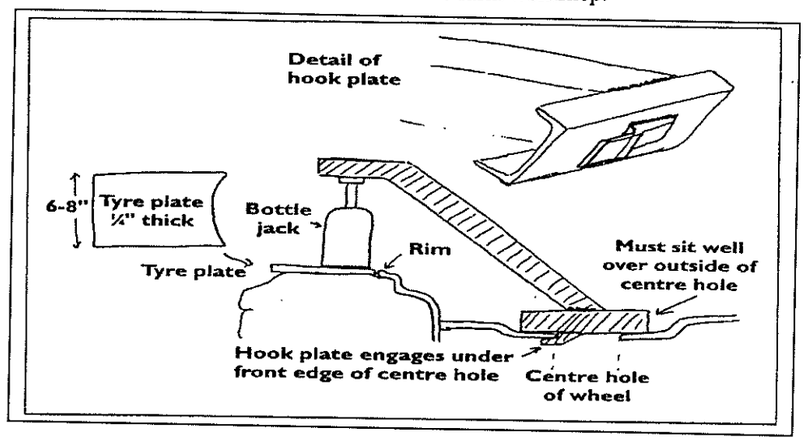
A CUNNING BEAD BREAKER WHICH IS SIMPLE TO MAKE

Source: Practical Farm Ideas

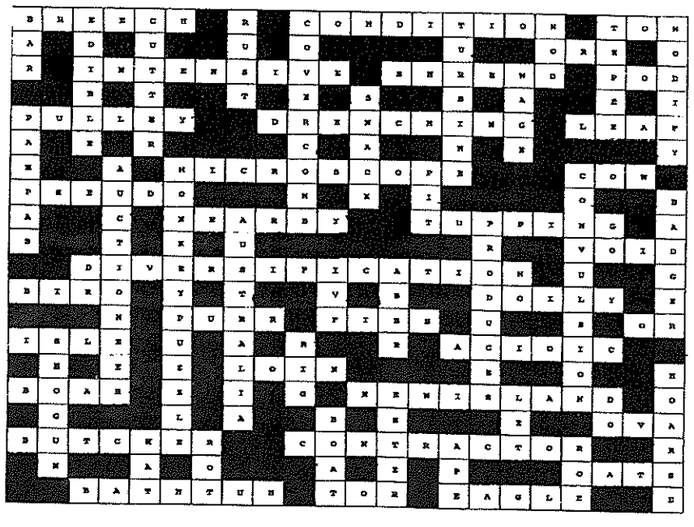
Breaking tyre beads from rims can be neatly and effortlessly done using a bottle jack and a tool. The bead breaker is a simply fabricated frame made with 4 x 2 inch steel channel. The frame is made so it hooks into the centre of the wheel, with its arm extending over the tyre. A steel plate can be placed under the bottle jack and the tyre forced away from the rim when the jack is pumped.

The tool adapts to various wheel shapes and sizes, as adjustments can be taken up using the screw on the jack. Sometimes putting pressure in a single place will be sufficient to get the tyre away from the rim. Other times you need to move the tool around to another place on the tyre side. While the inventor (Alan French) used a 5 ton jack, smaller capacity ones will work just as well. The force needed from the jack is relatively small.

This model has been designed for a 28 inch wheel, but the same principle works on tyres of very different sizes - you could make one for the 4 wheelers if your tyres are difficult to get off. As designed, the breaker works on wheels which have been removed from the hub. Adapting the design to work on wheels and tyres which remain fitted to the axle would make a useful addition to the farm workshop.



ANSWERS TO LAST MONTH'S CROSSWORD



THE REVOLUTIONARY NEW TRACTOR MOUNTED DAISY D DRAINER

by Andrew Pollard

When it comes to the time that a building has to be erected, one job which requires great motivation is laying electric cables or more often flexible water pipes. However organised you may be, Sod's law will provide rain, a howling gale or for the really unlucky, snow. These conditions that make a job tiring, monotonous and most of all, time consuming, no longer need be endured. Along has come the revolutionary new tractor fitted Daisy D Drainer.

As the Daisy D Drainer fits onto the hydraulics of any standard tractor, hands can now remain warm and more importantly time can be saved and spent on the many other jobs that would otherwise have been put off till next season.

The Daisy D Drainer carries out four jobs in one go:

(1) Opens the trench

(2) Lays the flexible pipe

(3) Surrounds pipe with gravel

(4) Closes the trench behind it

Trials carried out by the company have proved that a farmer could make an incredible saving of up to 74% using the Daisy D Drainer, when compared to hiring a contractor using a conventional machine.

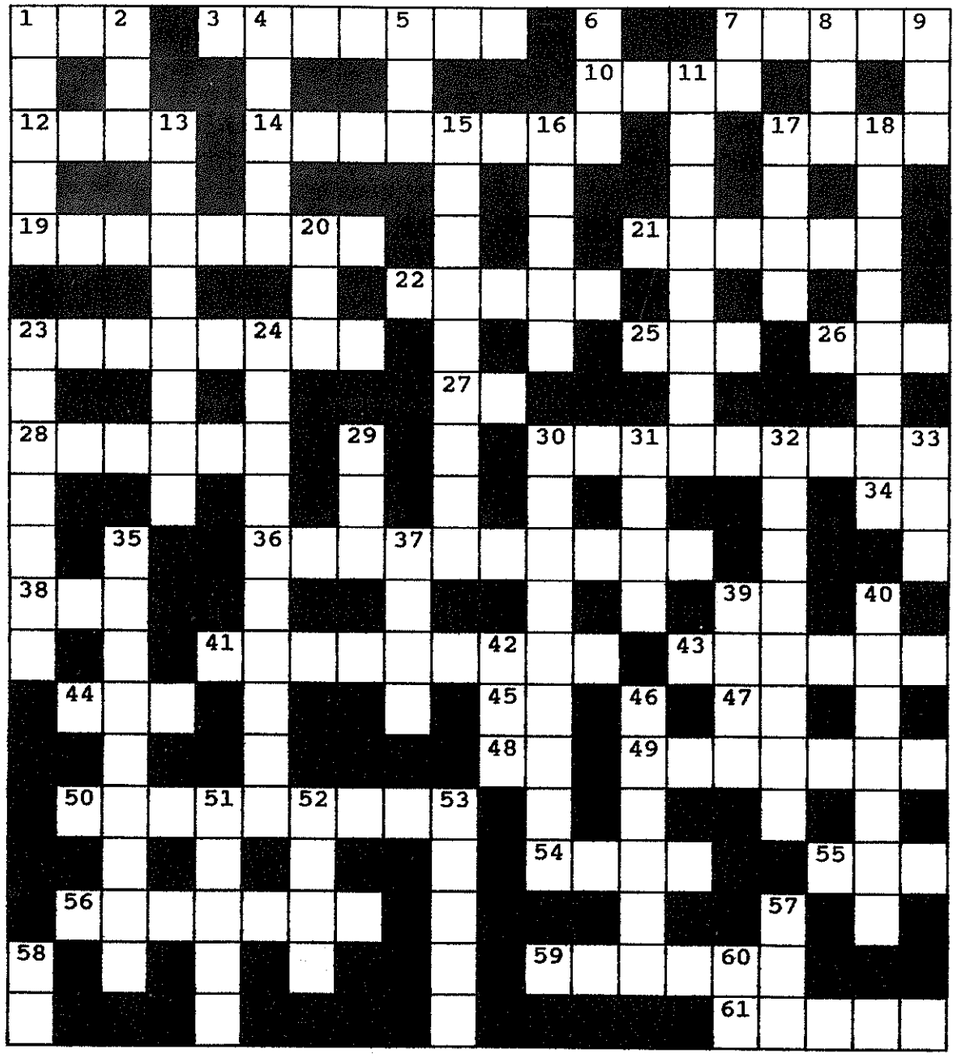
The Daisy D Drainer comes in three sizes: 60mm, 80mm and 100mm, and two ranges, standard and super. It also has the capability to lay just gravel alone as well as being used as just a subsoiler. Minimal soil disturbance occurs so no long term damage to the camp occurs.

For more information on this product please contact the Department of Agriculture, Stanley for a copy of the leaflet, or write direct to the company at the following address:

The Daisy D Limited
Agricultural Machinery
West Mains
Gleneagles
Perthshire
PH3 1PJ

Fax/Telephone 01764 682 202

THE MARCH CROSSWORD



TAKING AN EARLY WINTER BREAK?

The Department of Agriculture would be most grateful if all farmers who anticipate that they will be absent from the Islands in May through to July could make sure that their **farming statistics** returns are completed (and returned to the Department) **prior to departure.**

Any farm that requires a stock return form earlier than usual to accommodate this request are invited to contact the Department.

THE MARCH CROSSWORD CLUES

ACROSS

1. TO PUT MONEY ON A HORSE
3. TO WEIGHT UP
7. LESS THAN BEFORE
10. LIVESTOCK CHUTE
12. UNIT OF MATTER TO TAKE PART IN A CHEMICAL REACTION
14. LAMBS WITH A LACK OF COPPER
17. HAVE TO TRIM ON A HORSE
19. FIND THESE ON THE BEACH
21. NAME OF INDIANS
22. A MANS NAME
23. COLOURLESS GAS IN THE AIR
25. PIGS HOUSE
26. REAR OF A SHIP OR AIRCRAFT
27. THAT PLACE
28. PERSUADE BY FLATTERY
30. TO BE EATEN AWAY BY CHEMICAL ACTION
34. I, YOU, ME AND ...
36. CAROLINE THE VET'S HOME
38. THE TOP CARD IN A PACK
39. PARLIAMENTARY MEMBER
41. NAME OF A QUARRY
43. A SMALL ENVELOPE
44. SOMETHING TO WIPE YOUR FEET ON
45. OLD RADIO STATION
47. '..... AND SO' - UNNAMED PERSON
48. MISTER
49. INFLAMED SWELLING CONTAINING PUS
50. ONE EWE RAISING ANOTHERS LAMB
54. A KIND OF A DONKEY
55. OPPOSITE TO WET
56. A JOINT OF PRIME MEAT
59. CONCRETE
61. NAVEL AREA

DOWN

1. A QUICK SNACK ON TOAST
2. BEFORE THREE
4. CENTRAL CHURCH WALKWAY
5. HORSE NOISE
6. NOAH'S GOT ONE
7. CHEMICAL SYMBOL FOR IRON
8. DR OF THE TARDIS
9. SHORT FOR REFERENCE
11. PIECE OF EQUIPMENT TO STORE DATA
13. LIKE TO GROW IN DAMP CONDITIONS
15. IN A LOST TANK
16. TO CRAWL
17. JOINT IN THE LEG OF A HORSE
18. PIPE OUT OF THE TANK
20. MAKERS OF A JEAN
23. A VERY POWERFUL WEAPON USED IN WAR
24. HOUSE TO GROW VEGETABLES IN
29. A FEMALE PIG
30. FIRST DRINK VITAL FOR A LAMB
31. SMALLEST OF THE LITTER
32. TO STOP WATER RUNNING
33. NEVER BEEN USED
35. CHEMICAL USED FOR PUMPING UP MUSCLE
37. TO HAVE ENJOYMENT
39. SERVICE OR WORSHIP
40. MEDICATED SUPPOSITORY
42. TO LIFT WITH
46. BLAND BABY FOOD
51. A SOFT TRANSLUCENT MINERAL
52. WATER FROM THE SKY
53. GREEN BLANKET THAT GROWS ON THE GROUND
57. PAST TENSE FOR EAT
58. USED IN THE PREFERENCE 'I'
60. LATIN ABREVIATION OF NOTE WHAT FOLLOWS

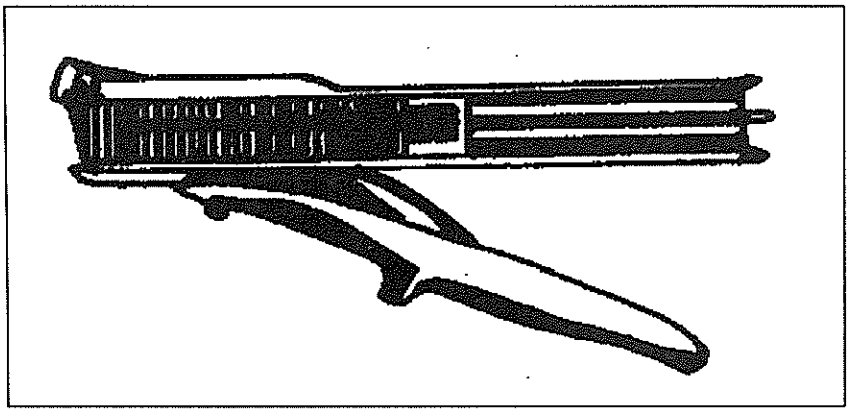
PRODUCT SNIPPET

From Nigel Knight, Coast Ridge Farm

Nigel has written in and suggested that I should let you know about a handy little tool that he has had for a few years.

It is called a Ring Gun and is obtainable from Jackson's Fine Fencing. This automatic ring fastener gun is a very fast method of fixing wire netting and chain link to support wire.

If anyone is interested in knowing more, please contact Nigel (Telephone 42094).



WANTED

by Linda McRae, South Harbour Farm

Does anyone have Yams in their garden or know of anyone who has that may be able to supply me with some ?

Telephone: 42308

CAN YOU MAKE GOOD USE OF B.V. TRACKS ?

The Department of Agriculture has had a phone call from Sgt. Rennie (**Telephone MPA 6320**) stating that he has a quantity of B.V. tracks which are no longer needed. He thought that they would be ideal for small bridges in swampy areas / streams. If you are interested please call him direct and he will give all the relevant information that you may need.

WOOL PRESS

ISSUE 89 APRIL 1997 RETAIL PRICE £1.00

IN THIS ISSUE:

PLUS ALL THE REGULAR FEATURES AND MORE!

The Wool Press is published by the Department of Agriculture. Editors: Mrs M. McLeod & Mrs C. Rowland.

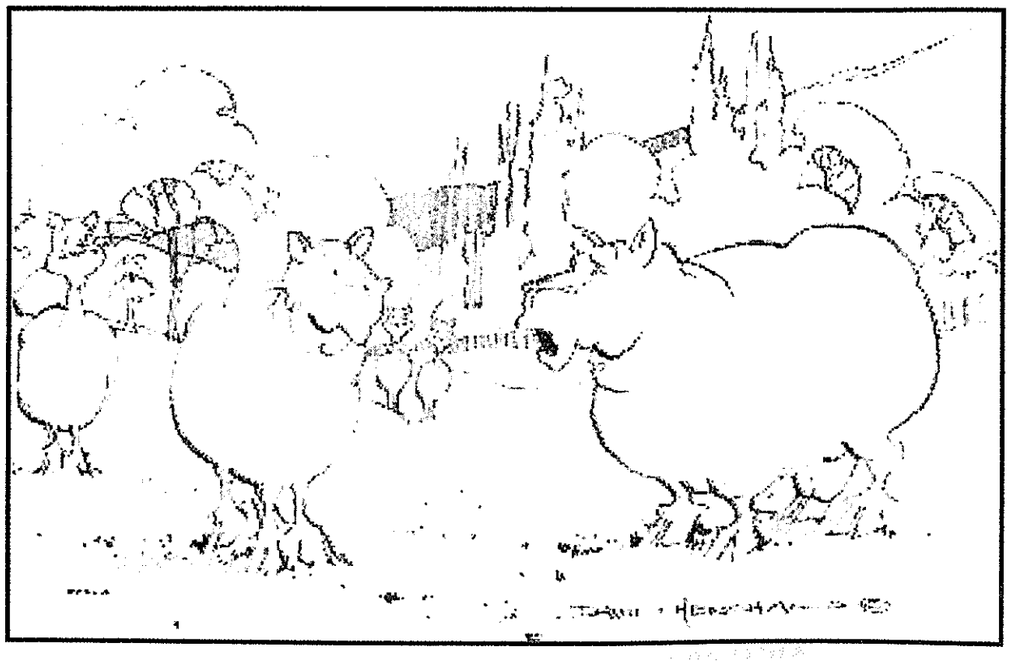
EDITORIAL

The 1997 National Stud Flock Sale and Open Day went well and are reported on in this issue. Some of the Open Day topics are also included. The rest will be in future WOOL PRESSES.

The WOOL PRESS survey sheets are slowly being returned. We've had about 50% so far. Some of the suggestions received have already been incorporated in this issue. Next month I will show an analysis of the survey. Please, if you haven't returned your form yet we would appreciate it if you would. The more replies, the more accurate the survey.

Yet more changes in staff have happened in the last month. Andrew Pollard has got a work experience placement in Wales prior to starting his HND in Agriculture in September. New to the department are David Parsons (Legume Agronomist), Lucy Ellis (Agricultural Assistant - NSF) and Robert Coombes (Agricultural Assistant - Forestry).

This Wool Market report is probably the last one from Hugh Marsden as he finishes working with the Department in April. Hugh has been with us since 1991 and his dedication and commitment to his work, the department and most of all the 'CAMP' will be missed. We wish him good luck for the future and hope to see him return one day. **Keep sending the articles Hugh!**

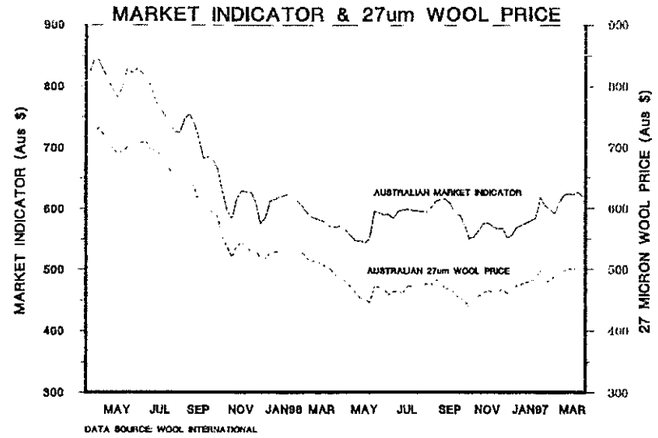


I know it's still a few weeks away but couldn't we just practice?!"

WOOL MARKETS

by Hugh Marsden

The Australian wool markets have closed for the Easter recess and will re-open on the 8th April. Prices remained firm throughout March although a large offering of 112,236 bales in the week prior to the recess led to a slight reduction in prices. Since the start of the 1996/97 season, the average weekly offering has been just 83,400 bales.

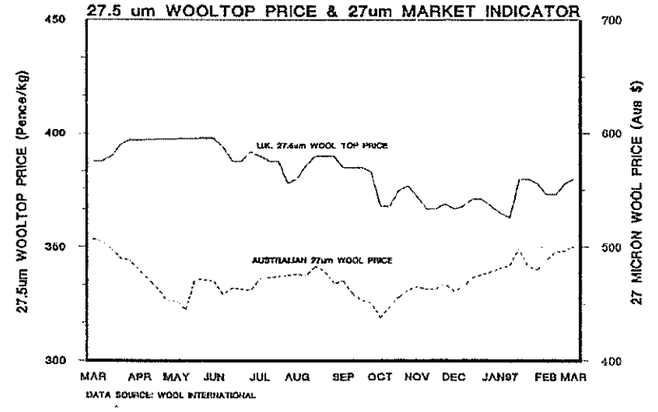


On the 21st March the Australian market indicator closed 5 cents lower (over the month) at **619 cents/kg clean**.

The 27 micron Indicator also weakened slightly during March. It closed 3 cents lower at **497 cents/kg clean**.

Wool International comfortably achieved it's revised disposal rate for the March quarter On the 27th March, the Wool International stockpile stood at **1,814,660 bales.**

Uncertainties surrounding the U.K election have at last caused sterling to weaken and also a slight increase in U.K wool prices. The Australian $ has strengthened by 2 cents/£ to close at 215 **cents/£** on the 27th March.



Help for Argentine Farmers

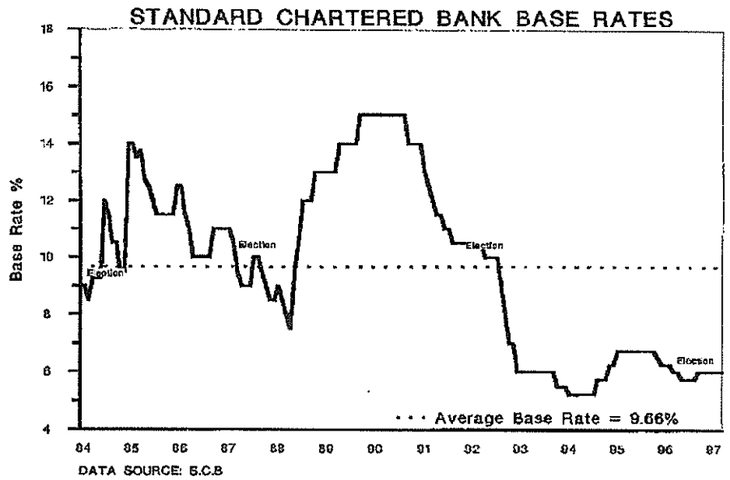
It appears that even the cash starved Argintine government has recognised the plight of it's wool growers and has reacted to the situation by initiating an assistance package for Argentinean producers. The Wool Record Weeklyt reports that President Menem has granted federal help to US$ 1.00 per kg greasy (60 p/kg) up to a maximum of 30,000kg. The relief is to assist farmers following a period of servere sheep losses caused by drought, severe winters, over-grazing and volcanic ash.

BANK INTEREST RATES

by Hugh Marsden

With the U.K now embarked on a political roller-coaster and heading for a May election, it seems an appropriate time to remind farmers of the economic dangers of interest rate volatility.

I am sure that those farmers with money invested in a S.C.B savings account (a rare species these days!) will need no reminding that interest rates are pitifully low. This observation is borne out if we examine the movement of base rates over recent years:



This short article is written to remind farmers that interest rates are a two edged sword and that it would be unreasonable to expect the current level of interest rates to remain ad-infinitum. It should also be remembered that there is a tendency for interest rates to sore with the egos of newly elected governments! I am sure that many within the farming community still have painful memories of the early 1990's when bank lending rates were as high as 18%.

Farmers should therefore think very carefully about the long term implications of taking on board commercial loans or overdrafts during this period of political uncertainty. An allowance for interest rate volatility should also be built into any investment appraisal exercise. I have particular concern for those farmers who are thinking of borrowing money for the purchase of an item that does not generate an economic return (i.e a new vehicle or an expensive bathroom suite.)

A simple comparison of the interest charged on a £6,000 loan over a five year period will hopefully reinforce this concern. In 1991 (higher rate) the interest charged on a 17% (fixed) loan over 5 years would have been £3,376. In recent months, the interest charged on the same amount of capital could have been as low as £1,365.

NATIONAL STUD FLOCK SALE

by Charlene Rowland

Preparation started a few days earlier to get all the seventy-one N.S.F. rams in from Saladero. Arthur finally arrived at the shearing shed at 8 o'clock on the Wednesday morning, just before a raging thunderstorm burst its clouds. Setting up the pens and picking the right ram for the right pen was a task and a half.

The rams faired well over night in the pens and were looking forward to their new homes (I think). Neighbouring farmers started to arrive around 9 o'clock and eagerly started to sellect the ram that they thought would be ideal for their flock.

The day started with thick fog. The Islander Aircraft had started flying at half past six and turned back to Stanley, but by 11 o'clock we were informed that they were flying again and they would have all the West Falkland farmers over to Goose Green by 2 o'clock. Sure enough FIGAS kept to their word.

Bidding started at approximately 3 o'clock. Owen gave a short speech and thanked everyone for making the effort to come to the sale. Brook Hardcastle took over and started the auction. The bidding was fast and furious. Only four out of the seventy-one rams did not sell, and were transported back to Saladero.

Lot No. 1 was a difficult ram, he had decided not to stand in the pen and thought farmers could look at him sitting down, but with a bit of coaxing he finally stood up and was bid for. The prices ranged from £50 to £250.

This year saw three Cormo rams from Fitzroy Farm. (A Cormo ram is part Corriedale and part Polworth and will give fine wool). No one bid for these rams, but we would like to take the opportunity to inform farmers that we hope to auction other farms sheep again next year. If you have an exceptional sheep that you would like to sell, bear it in mind.

We would like to thank Tony and June for letting us hold yet another sale at Goose Green, and the farmers from East and West Falklands (including the school children) who came on the day and gave us their support.

FALKLAND ISLANDS LIVESTOCK STATISTICS

It is getting close to the time when the Livestock Odinance forms will be sent out to all farmers.

In order to minimise delay in publishing the Annual Farming Statistics, will any farmers that anticipate leaving the Islands during the usual data collection period (figures as at 31st May 1997), please contact Charlene or Mandy to ensure that a form is sent to you prior to your departure. **THANK YOU**

MORE STATISTICAL COMPARISONS (part II)

from Hugh Marsden

Apologies to Hugh from the Editors! We missed off the last part of his article on Statistical Comparisons (issue 88). We have started the article off again at section 2: Hogget Mortality Rates.

2. Hogget Mortality Rates

In contrast to the loss in lambing performance, it appears that some sectors of the industry have made significant progress in reducing the incidence of hogget mortality. This development should be welcomed as hogget losses represent an enormous drain on the profitability of the business.

Table 3: Comparison of Hogget Mortality Rates 1978 -1985

System of Farm Ownership	1978 Hogget Mortality Rate	1991-1995 Hogget Mortality Rate	% Increase (Decrease)
Sub-divided farms	19.32	15.68	(18.84)
Non Sub-divided arms	18.87	14.09	(25.33)

Data Source: Falkland Islands Farming Statistics

As with other statistics, the change in hogget mortality rates amongst the various sub-divisions has been extremely mixed, with the majority of farms experiencing a significant reduction in mortality rates.

Table 4: Sub-division Hogget Mortality Rates 1978-1995

Original Farm Name	1978-1980 Average Hogget Mortality (%)	1991-1995 Average Hogget Mortality (%)	% Change in Mortality Rates (Decrease)
Douglas	21.21	17.38	(18.05)
Fox Bay West	17.11	15.09	(11.80)
Green Patch	23.09	15.31	(33.69)
Hamilton Est	19.76	17.72	(10.32)
Hill Cove	20.66	15.00	(27.39)
Packes (Fox Bay E)	24.19	11.56	(52.21)
Port San Carlos	22.92	13.29	(42.01)
Port Stephens	9.70	21.86	125.36
Roy Cove	16.03	14.23	(11.22)
San Carlos	16.60	15.60	(6.02)
Teal Inlet	23.16	16.10	(30.48)
Total Sub-divisions	19.32	15.68	(18.84)

Data Source: Falkland Islands Farming Statistics

Please note that the above figures do not include the 1995/96 season statistics. They do however include the 1991 "volcanic ash" year.

3. Camp Population Loss

Evidence suggests that the sub-divided sector has been more effective in maintaining Camp population.

Table 5: % Loss in Camp Employees 1978 -1996

System of Farm Ownership	No's Employees 1978	No's Employees 1996	% Decrease
Sub-divided farms	171	120	29.82
Non Sub-divided farms	163	80	50.92

Data Source: Falkland Islands Farming Statistics

This table is quite interesting in that it suggests that the decline in the Camp workforce has been lower in the sub-divided sector. For the future, it seems likely that unless there is a major shift in the pattern of land ownership, the work force in the sub-divided sector should remain virtually constant, whereas market forces in the Island's labour market could result in a continued shift in labour from the larger farms to Stanley?

ROBIN'S PEDIGREE

by Robin Thompson

Personal

I am married to Glenys and we have two boys, Nigel aged 13 and Keran aged 10. We come from a little town in the North East of Tasmania called Scottsdale. There I work for the Department of Primary Industry and Fisheries and Glenys works at the local high school in the office and as a learning assistance teacher. My family are not here yet but hopefully you will have a chance of meeting them before the end of the year. We have a farm on which we run a Merino ram breeding nucleus, beef cattle and grow potatoes and poppies.

Professional

During my time with the Tasmanian Department of Agriculture. I have concentrated on grazing management and the interaction of plants and animals. This is of course a very broad area involving both general animal husbandry (sheep, beef and dairy) as well as specific pasture and animal management factors. I have also been involved with the development of nucleus breeding schemes, electronic animal identification systems and general farmer education.

I obtained my masters degree from Melbourne university looking at the issue of farmers paying for information and assistance from Departments of Agriculture. Eight years ago I spent half a year working with the New Zealand Ministry of Agriculture on a project looking at controlled grazing management for sheep and beef production. A couple of years ago I ventured into the political arena as a research director working with five state politicians, running a parliamentary select committee inquiry into the Tasmanian dairy industry. I found this great as it provided an opportunity to experience the political process from the inside, but I would rather stay on the outside.

On a more agricultural note, during the past three years I have been leading a team doing research into how gazing management can be used to change the type and quantity of plants that grow in a pasture. This project also had a large farmer education component in which there was the opportunity to learn more about the practical implications of how plants and animals interact and feed the requirements of animals. Hopefully we will be able to develop a similar course for farmers in the Falklands.

THE GRASSLAND TRIALS UNIT REVISITED

by Heather White - nee Rogers

After an absence of eighteen years, I made a return visit to the Falklands in January of this year, to catch up with old friends and, of course, make a pilgrimage to the Department of Agriculture ("Son of GTU") to see how it had all progressed from our early days. I was very impressed with the changes, the laboratory in particular. My lab had been half of what is now a conference room. Whilst there I was asked to contribute a little something for the "Wool Press". Here it is! Should it seem a little light-hearted, well those are the things one remembers.

In March 1977, on a two-year loan to ODA from the Ministry of Agriculture, Fisheries and Food Central Veterinary Laboratory, I travelled to the Falkland Islands to join the Grassland Trials Unit as a Veterinary Biochemist.

The unit comprised of a team leader, Campbell Kerr, from the Hill Farming Research Organisation in Edinburgh; an agronomist, Jim McAdam from Belfast University; and the vet, Steve Whitley. The unit had been set up as a result of a fact-finding mission led by Tom Davies in the late 1960's, and prior to my trip I had read the Davies report and met several members of the team. From them I learned a little about the work to be done - and a lot about the friendship and hospitality they had met in the Falklands. They were able to repay some of this however, as the team consisted of several Welshmen and had, I understand, been the basis of a good male voice choir.

When I arrived, the unit was short of a field officer (Peter Maitland arriving some months later), so I got involved in the weighing, condition scoring, cobalt bulleting and dye-banding of sheep. The dye-banding to measure wool growth was as near as we got to the sophisticated techniques that are in use at the present Department of Agriculture, where there is now a temperature and humidity controlled room for the work on wool.

In the laboratory one of our first priorities was to get a reliable test going for the detection of *Brucella ovis*. Steve had written to me in England saying he had details of one that was fairly straightforward, but was lacking a vital barbiturate. I travelled down through Argentina carrying boxes of the substance to enable us to make a start. I still go a little cold now when I think of what the Argentine customs would have made of it, had they known. The test was a simple gel diffusion using serum from the sheep. It was quite time consuming but required no complex equipment, and it worked for us. This was the beginning of the eradication of Brucella from the Falklands, which I understand is virtually complete.

The separation of serum from the blood of so many animals could have posed a problem as all we had was a small hand-wound centrifuge that took only four tubes (surely a museum-piece now, if it still exists). However it was discovered that a sharp tap on the side of the 'vacutainer' was found to detach the blood-clot and leave enough clear serum at the top to test.

Hydatid was the other urgent problem at the time and Steve was working diligently to ensure the destruction of all sheep offal, and that all dogs were regularly wormed. Also, in an attempt to detect incidence of the disease, we had decided to carry out faecal worm-egg counts on all the dogs in each settlement. Not a job either of us anticipated with any degree of pleasure and Steve offered gallantly to take on the work. Alas, I did not get off so lightly, as on the Sunday prior to starting it, he broke an arm playing rugby against the Royal Marines. Incidentally, any rugby match in the 1970's was of an undetermined duration, as, regardless of what time it started, it finished at 11.45 so that teams and supporters could get to The Globe for 'Glory Hour'. Pubs then were only open between 12.00 and 1.00 on a Sunday.

Along with the problems of "boils" (a legacy of heavy-handed shearing?) and the strange incidence of black livers, we also encountered "Square Cat Syndrome." These were cats in which bone development seemed to have been arrested, leaving the animal short and boxy-looking. Not usually a real worry until the females got pregnant birthing their kittens. There were two theories on this-one. One was that a diet of only one mutton was not providing the minerals and vitamins essential for proper bone development and that feeding a proprietary brand of cat food would overcome this. Dutifully the F.I.C. introduced Kit E Kat to the West Store, and, quite predictably, the cats turned up their noses at it and went on with eating mutton. The second theory was that it was all due to in-breeding in a somewhat enclosed feline society. It was felt that importing a couple of dozen randy toms might sort things out. I do not know if this was tried, but on my return to Stanley I find the cats eating tinned food and looking fit and healthy.

Another vivid memory is of the time when I was the GTU - all other members of the team being on home leave. The greatest challenge was being "Deputy Vet". Giving injections to cats and trimming budgies beaks in Stanley was OK, but giving advice over the R.T armed only with Steve's books was daunting. I was frequently asked for help with chickens that "were off their legs" - a symptom that seemed common to every known poultry disease. My thanks are due to Richard Cockwell who reckoned it was most likely to be coccidia, so we dished out sulphanilamide (out of date for human use and kindly donated by the hospital) to be added to the drinking water. Our patients soon got up and walked!

I do not know if this is still happening, but we seemed to get involved in all sorts of extraneous projects. One of my first jobs was to sort out haemoglobin assays for the hospital. They had been getting ridiculously high levels, even to the point of wondering whether they should be giving the pregnant mums extra iron. It turned out to be a faulty test, and not anything strange about life in the Falklands. The British Antarctic Survey asked for a little laboratory help from time to time, and at one point we were weighing egg contents from wild birds and sending them off for pesticide assay. This was, of course, the time when it was realised that DDT levels were building up in the environment. I can also recall using copious amounts of GTU hydrochloric acid to clean up the vintage lemonade and beer bottles that Jim McAdam was bringing up from his dives in Stanley harbour. I still have some of these, but will return them as I feel that they really belong in the splendid museum.

Also on the lighter side, some weeks before Dr Ron Summers arrived (our Goose Officer, whose remit was to quantify the adverse affects of geese grazing on pasture and possible ways of controlling goose numbers), various items of equipment arrived for him which we unpacked. Included in one lot, to our amazement, was a large box of condoms! For the control of geese? We later realised that it should have been delivered to Dr Peter Summers at the Hospital!! Also, about that time, we took delivery of a very whiz new typewriter complete with its book of instructions entitled "How to use and enjoy your Brother"!?

Oh, and did I ever manage to do a little biochemistry while at GTU? Yes, we did some assays of copper levels in sheep livers (results which were later confirmed by my parent laboratory) as we suspected copper deficiencies, but the results proved us wrong.

I'm sure the Department of Agriculture won't mind if use this opportunity to thank all of my old friends for making our trip so memorable. I won't mention names, they know who they are. We won't leave it so long next time.

MASTITIS

by Caroline Lamb

Mastitis refers to inflammation of the mammary gland. This usually results in swelling, heat and pain in the udder, with milk that may be discoloured and contain clots and large numbers of white blood cells (pus).

The infective agents involved are broadly divided into 3 categories:

1. Causes of contagious mastitis - e.g. *Strep. agalactiae, Staph. aureus*.
These bacteria are transmitted from cow to cow - usually via contaminated milking cups.

2. Causes of environmental mastitis - e.g. *E. coli, S. uberis.*
These bacteria are common in the farm environment. Infection with these is often found when the cow is brought in after calving, especially if in wet, muddy conditions.

3. Normal teat flora e.g. *Staph. epidermidis.*

There are varying degrees to which the cow may be affected by the infection, depending on the bacteria involved.

In very severe infections, in addition to usual mammary gland changes, there may also be signs of systemic infection such as depression, sunken eyes, weakness, fever and loss of appetite. Very occasionally gangrene of the udder may occur - the infected quarter becomes cold, turns a bluish colour and will eventually slough off.

However, in most clinical infections fever and depression are slight with inflammation in the udder usually the only noticeable problem. The milk may become thickened with clots noticeable. Alternatively the only material milked from the gland may be a watery substance - and not much of it!

Control and Treatment

1. Treat clinical infection as they occur. It probably pays to have 2 or 3 syringes of intramammary antibiotic on hand by the start of calving.

The quarter should be milked out as much as possible first. Then the end of the teat should be wiped with dilute disinfectant before the intrammamary syringe is inserted. The treatment should continue for 3 days.

2. Milk any infected cow last.

3. Correct any chapped/cracked teat using teat cream as this will predispose to infection.

4. Ensure milking cups are cleaned and disinfected thoroughly after every milking.

5. Use dry-cow preparations on any cow that has mastitis neardrying-off, or any cow that had 2 or more bouts of mastitis during the seasons lactation.

RAM MANAGEMENT

By Doug Cartridge

By now all farmers should have their rams selected out for the forth coming tupping. I can not emphasis enough, the importance of getting this job done well in advance of the proposed mating date. I have constructed a checklist, that I hope you will all take note of, it will help to insure that you obtain a high ewe conception rate and hence optimise your potential lambing % for 1997.

1) **Ram to Ewe ratio.**
Under open camp management a ratio of 1 ram per 30 ewes should be maintained. This ratio could be extended for small mobs mated under intensive management conditions.

2) **Cull rams rigorously for faults.**
Genetic gain is slow in the Falklands with low reproductive rates, high death rates and the practice of not lambing ewes until they are 3 years of age. Because of this you must insure that you are maximising the potential genetic gain each and every year. The rams that you use dictate half of that potential gain the balance being reliant on the ewes. You must source the best possible genetics and monitor your rams productive performance. You must cull rams with physical faults i.e incorrect teeth placement, poor foot formation, face cover etc. You must cull rams with wool faults i.e black fibres, hairiness, unevenness and low production.

3) **Inspect rams for reproductive soundness.**
If rams are not reproductively sound you are wasting your time trying to breed from them. Turn each ram over and inspect that there are no abnormalities which may affect the use of it's penis. Check for shear cuts and abscesses and any other infections or swellings. Thoroughly examine the rams scrotum and testicles checking for abnormal lumps, inadequate testicle size and any other irregularities which may occur. If you require further information on this please contact the Department of Agriculture for advice.

4) **Animal Health**
Rams must be in good health and condition to maximise their performance. Sperm take 6 - 8 weeks to form and mature thus rams must be in good shape two months prior to the commencement of mating. You should specifically be attempting to increase their body weights during this time preferably on good quality pasture located near the settlement. This will allow you to keep a close eye on them to eliminate any chance of disaster. They should not be unduly stressed in the two weeks preceding introduction to the ewe flock and under no circumstances should they be shorn within that time. Pay close attention to animal health, a worm drench 4 - 6 weeks prior to mating and constant checking for lameness, scouring and general well being will ensure they are rearing to go when you introduce them to the ewes.

5) **Mating Management**.
Ewes display oestrus or cycle approximately every 17 days. To ensure as many ewes conceive as possible, while maintaining a condensed lambing, will require rams to be left with ewes for a maximum of 3 cycles or approximately 50 days. Rams should be removed after this time, put on good saved pasture and treated for any animal health problems. Don't forget about them until this time next year. Your ram flock is, or should be, a valuable asset. Looking after that asset will ensure constant productivity gains into the future.

Always remember!!

If you don't look after your rams.
Your rams won't look after your ewes.
If your ewes aren't looked after by the rams.
You won't get many lambs.
And if you don't get many lambs.
You won't be able to blame the rams.
But the rams will be able to blame you.
And there's nothing worse than a smart arse sheep!!!

WOOL TESTING

by Diana Roberts

Wool testing is measuring the fineness of the wool and is one of the most important parameters of the wool fibre. It determines how the fibre will be used. The handle and visual appearance of the overall product is affected by the fineness of the wool. Clear price differentials exist for different fibre diameters. In almost all cases the price increases as the diameter decreases.

The current measurement unit of fineness is the micron. A micron is one micrometer, that is one millionth of a meter. 17 micron would be classed as fine compared with 30 micron which is coarse.

The most common method officer diameter measurement is the Airflow method. This is quick, simple, inexpensive and accurate on most wool types.

The principle of the airflow method is to apply a constant air pressure to a fixed weight of wool in a standard volume chamber and to measure the resulting flow of air through the sample. The surface area of the wool fibre creates a resistance to the flow of air. The airfllow is measured on an airflow meter. Finer wool causes a greater resistance to the flow of air than does coarse wool.

A midside sample is used as this is representative of the whole fleece. The wool is washed twice to remove grease and vegetable matter and is then dried. The wool is then carded and placed in a standard laboratory atmosphere of 20°C and 65% relative humidity. Moisture is absorbed by the sample from the atmosphere to the point where the fibre is no longer absorbing any additional moisture. The wool once conditioned can be tested. 2.5 grams of wool is placed into the meter and a reading is taken. This is repeated for a further 3 times and an average taken. The readings are then converted to microns using a standard graph.

To make sure that the wool laboratory is up to international standard, we have become a member of Interwoollabs. This is an association who monitors laboratories for test procedures and results. They organise two round-tests per year and by using their approved wool tops of known diameter it is possible to calibrate the airflow meter to produce accurate results.

Percentage yields are also carried out at the laboratory. Basically, the yield is the weight of clean wool expressed as a percentage of greasy or raw wool after the removal of impurities. The impurities can be natural such as grease or acquired, such as vegetable matter along with sand and soil. In addition, wool naturally absorbs water and this can vary from day to day depending on climatic conditions.

The first stage in testing is that the sample is accurately weighed out. It is essential that no fibre or vegetable matter impurities are lost after this stage. After the test samples have been weighed they are scoured in hot water and detergent where the grease, dust and dirt are removed. The sample is then dried at 100°C until the weight becomes constant, indicating an absence of any moisture. This constant dry weight is recorded and the percentage yield worked out.

The cost of the tests are as follows:

£2.00 per sample for the first 25 micron tests and £2.50 per sample for the first 25 micron plus percentage yield.

For the second 25 samples it is £1.50 per sample for micron only and £2.00 for micron and percentage yield.

Any additional samples, the micron test costs £1.00 and £1.50 for micron plus yield.

Samples submitted should be a midside sample, identified with the farm or farmers name and any other identification of the sheep.

CATTLE - FARM WRECKERS ?

by Robin Thompson

Although I have only been here a short time, many people with cattle tell me that they are difficult to handle and that they wreck their fences. This may well be true, but as an old professor used to say "Why is it so"?

Cattle, like any animal, (and humans for that matter) get scared when unfamiliar sights and activities start going on around them, so they run away to what they think is a safe distance. This distance will be determined by their previous experiences and, of course, if they were bad, such as being shot at or chased with lots of excitement and vigour, they will run a long way, probably taking everything in their path including fences. The cattle that we have don't have to be so tame that you can pat them on the head or tie them up, but they do need to be familiar and confident enough with us that they have a small 'flight' distance, or don't really 'bolt' when they see a human. This can be achieved by simply being with the animals and working with them in a controlled way.

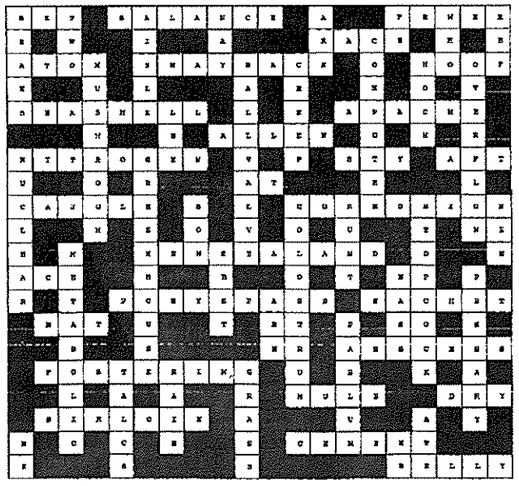
Fences are a valuable asset and are essential for good pasture and stock management, so it is important that they are kept in good order. A fence is effective in stopping stock because either they see it as too large a physical barrier to overcome or because they are afraid of it. In reality, no paddock fence is of sufficient physical strength to stop many farm animals, but if the animals don't learn bad habits like being able to walk through them, then they serve as a good bluff.

Electric fences on the other hand work on the fear principle. Just as cattle keep away from humans who do nasty things to them, they also keep away from fences that shock them. This means that electric fences can potentially be 'flimsier' than conventional fences but will only remain effective if they are kept turned on and operate at an effective voltage (more than 4500 volts). There is no substitute for good design and regularly checking electric fences, just as is the case with conventional ones.

Nobody wants to spend money on fences or anything unless there is little alternative. The effectiveness of an old fence can be dramatically improved by the addition of an electric outrigger. This is just one electric wire held out by insulators or poly-pipe so as to be about a foot away from the conventional fence. This wire then serves as the first line of defence and if operating properly keeps animals away from the fence.

Cattle need to be trained to respect electric fences. This can be done by confining them to a small area surrounded by a fence with a high power output so that they get a few good shocks. They learn quickly, and once the fencing is in place around the farm future training will take care of itself.

Give me a call at Goose Green on 27354 if you would like to discuss fencing or any other aspect of cattle husbandry.



THE MARCH SOLUTION

AGRICULTURE ON TRIAL - STUDENTS' VERDICT

by the Students of the Falkland Islands Community School

Tomorrow's farmers, currently attending the Falkland Islands Community School, recently attended the annual Agriculture Department Open Day. The day began at the grazing systems trial being carried out on Whitegrass camp pasture close to Mount Pleasant Airport and belonging to Fitzroy farm. Over a period of three to four years, Senior Scientist Aidan Kerr has been aiming to develop a profitable and sustainable grazing system for adult wethers and Whitegrass camp. During the period of the grazing trial an analysis has been made of the economics of producing wool and the performance of sheep in both set-stocked and rotational grazing systems.

Early results from the trials show that sheep grazed on rotation pasture (where Lax Whitegrass has decreased by 6% and other types have increased by 1-3%) produce 0.2kg more clean fleece than set-stocked sheep. This represents an increase of $430 per 1,000 sheep, with survival being 93% regardless of the system. In Autumn, rotation grazed sheep lag behind set stocked sheep in both live weight and condition scoring (cs), but the benefits of rotation grazing through the winter months become obvious by the time Spring arrives in September. By then rotation sheep have recovered from being on average 2.8kg lighter to become 2.7kg heavier. Their (cs) has also improved from being 0.4 behind set-stocked sheep to being 0.3 better. These improvements continue into Summer so that by December rotation sheep are 3.2kg heavier and 0.6 (cs) better condition than set-stocked sheep.

There was some debate concerning the merits of Fachine. On the one hand it cannot withstand heavy grazing because sheep find it so palatable and benefit from its high nutrient value. Growing to a height of one to two metres it can provide shelter as well as habitat for passerine birds such as finches. On the other hand it is disliked by some farmers because of its tendency to pull wool from the fleece.

There was also an opportunity to study the work of the tree evaluation trial, a programme initially funded by the United Kingdom Falkland Islands Trust. The value of trees as shelter belts seems particularly important in the Falkland Islands, both for stock protection and in creating micro-climates for arable farming and gardens. Of the species trialed, Lodgepole Pine has been the most suitable with browsing and frost badly effecting Sitka Spruce. Paraweb shelter did not make much difference to the rate of growth and may be an unnecessary expense. One expense that cannot be spread on East Falkland is in providing hare proof netting.

Pit planting has provided to be the best planting technique. To allow roots to establish it is important to break up the iron pan layer to a depth of at least one metre. The use of fertiliser and kelp both benefit growth, but once planted, competition from weeds must be avoided if the young trees are to thrive. At planting it is important to keep the roots moist while the pit is being prepared and as a guideline there should be as much root as there is stem. The choice of site is also important. When planting shelter belts, exposed sites such as the tops of hills and ridges should be avoided but even so there will be some wastage. The belt needs to be some ten rows wide as the windward side will wither and die - these trees will be sacrificed so that others might grow. The origin and quality of the stock is vitally important; it must come form an environment that closely resembles the Falklands or it will fail.

Clearly, forestry in the Falkland Islands is a long-term investment. The benefits will be significant but success depends on the four P's - Planning, Preparation, Persistence and Patience. Regardless of their particular interests, these are four qualities which continue to bring success to Falkland Island farmers.

DEPARTMENT OF AGRICULTURE - SEMINARS

forth coming seminars to be held at the Department of Agriculture:

Aidan Kerr	April 11th at 3.30pm	Progress in Whitegrass Research
Robin Thompson	April 24th at 2.30pm	Beef Production Program
Owen Summers	May 9th at 2.30pm	Rural Development Scheme
Sean Miller	May 23rd at 2.30pm	Rangeland Sheep Nutrition
Doug Cartridge	May 30th at 2.30pm	Wool Production and Preparation

ALL ARE WELCOME

SUMMARY OF THE AGRICULTURAL MANAGEMENT COMMITTEE MEETING HELD 24TH MARCH 1997

by S. Halford

The following is a brief resume of what was discussed at the recent meeting of the Agricultural Management Committee Meeting on 24th March but not items which will require Executive Council approval:

Bob Reid informed the meeting that he would be accompanying Rodney Lee on visits to as many farms as possible with the view of gathering together farmers ideas for what they see as the best way forward for them and how best the department could help or assist.

The current legislation under the Protection of Animals Act 1912 does not cover cats and dogs and it was decided to ask the Attorney General if this could be amended.

The need to have killing houses dog proofed and some dog kennels tidied up was discussed.

The department have been given another 150 hectares of land at Fitzroy for experimental purposes. It is intended that once this land is improved it will be swapped for another piece.

The need for a national beef herd was discussed and how best this could be achieved. It was hoped that in the short term good breeding animals could be purchased rather than killed for beef.

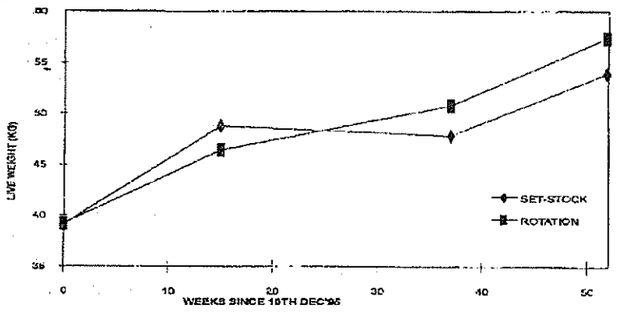
If anyone has any ideas they would like to put forward at any time then please do contact either myself or one of the other committee members; we would like to hear from you.

OPEN DAY - SS6 GRAZING TRIAL
SHEEP & WOOL RESULTS 1995 / 96

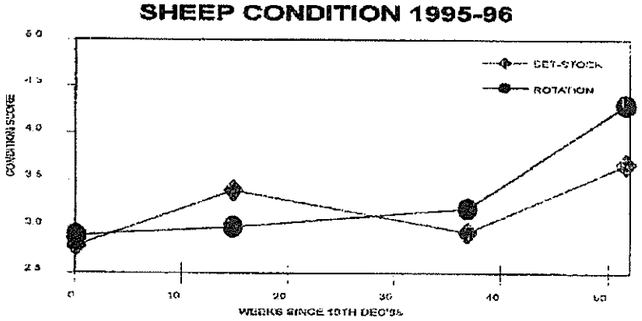
from Aidan Kerr & Doug Cartridge

This is a summary of the first year's results of the SS6 grazing trial at Fitzroy showing the effects on sheep and wool.

SHEEP LIVE WEIGHT 1995-96



SHEEP CONDITION 1995-96



1. Survival was about 93% in all systems.

2. In April, set stocked sheep were 2.8 kg heavier and 0.4 (cs) better condition than rotation sheep.

3. By September, rotation sheep were 2.7 kg heavier and 0.3 (cs) better condition than set-stocked sheep.

4. By December, rotation sheep were 3.2 kg heavier and 0.6 (cs) better condition than set-stocked sheep.

5. Rotation sheep produced 0.2 kg of clean fleece more than set-stocked sheep.

WOOL ANALYSIS

	SET-STOCKED	ROTATION
MEAN CLEAN FLEECE WEIGHT (Kg)	2.1	2.3
MEAN MICRON	29.8	30.2
MEAN STAPLE LENGTH (mm)	108	117
EST. HAUTER (est. fibre length in tops - mm)	87	89
EST. WOOL VALUE / HEAD	£4.70	£5.10

STAPLE STRENGTH

	SET-STOCKED	ROTATION
MEAN STAPLE STRENGTH (N / Ktex)	25	29
WEIGHT REQUIRED TO BREAK AVERAGE STAPLE (Kg)	7.0	8.8
PERCENTAGE TENDER (<30 N / Ktex)	72	53
POTENTIAL MEAN DISCOUNT FOR TENDERNESS / HEAD	12p	9p
INCREASE IN WOOL VALUE / 1000 SHEEP		£430

THE NEW SHEEP HUSBANDRY OFFICER - SEAN MILLER

Well, the customary greeting of an Australian is a simple, welcoming "G'day". However, after recently arriving in Goose Green I must say it pales by comparison to the Falkland Island's welcome provided by the trio of killer whales in the harbour. G'day indeed!

As a brief, general introduction, my recent history has seen the last decade between the pastoral country of outback Queensland and the cereal growing zone of Victoria (sheep nutrition research), the dairy country of Western Australia (dairy cattle nutrition and feed quality), and working the family's Thoroughbred horse and Poll Dorset sheep property in South Australia. On a more social side, I lay claim to a set of golf clubs, a fishing rod and an old guitar, and the way I'm playing golf at the moment I'll take just about any offer for the clubs!

More seriously, from my first few weeks in the Islands it is clear that there are many common issues facing Falkland farmers with those faced by farmers throughout most of Australia's pastoral country. These include a predominance of poor quality feed for much of the year, high mortality rates amongst lambs and hoggets, and of course the obvious management difficulties associated with extensive grazing properties.

In the coming months the Department will be building on the past work done in some of these areas, with the aim being to assist in improving the survival of young sheep in particular and, therefore, lifting the size of the Falkland Island's wool clip.

In the mean time, if you happen to pass through Goose Green or need some nutrition advice, drop in or drop me a line (telephone 27353). Until then, see you round the traps!

ANOTHER GREAT BEAD BREAKER IDEA

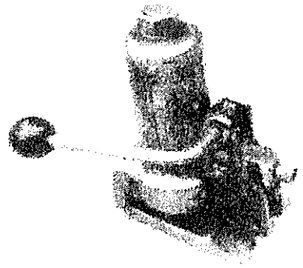
source: Practical Farm

Breaking tyre beads is a problem which can be solved with something as simple as a sledge hammer or with complex power equipment. Here's a home made tool which falls neatly in between the two. Hand operated, it needs no power source. The machine works by forcing the bead off the rim using a split foot, the centre of the foot working on the underside of the rim and the outer parts pushing down on the tyre bead. You use the bead breaker by first knocking the pointed foot between the wheel rim and tyre bead. Operating the lever on the machine grips the wheel rim. Turning the bolt on the top forces the bead away from the rim. Undo and move around the wheel until the bead is free. The job is quick to do - and safe as well.

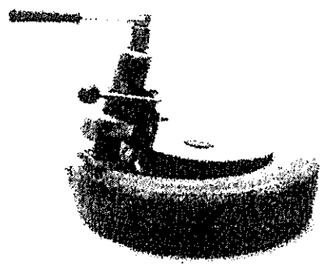
The bead breaker is made using two short lengths of pipe, the larger having a diameter of 2.5 ins and the other smaller and able to neatly slip inside. The top of the outer pipe is capped off with a heavy duty plate drilled so a 5/8 ins bolt can go through. The smaller, inside tube is capped with a 5/8 ins nut. Around the base of the larger tube there is a reinforcing ring of heavy section pipe, and welded to it is a short locking plate on one side and a curved foot or tongue on the other. Above the foot is a bracket with a screw adjuster and a slot which carries the rim gripper. The base of the smaller tube carries the pushing part of the foot which has the centre cut away so the gripping part fits in the middle. At the start of the job the tongue sections line up together.

The rim gripper works by having the two sections pivot on a rod. The position of the rod is adjusted by a screw and the gripper can move vertically to take account of the thickness of the steel rim. The handle has a cam on it which connects with the outside of the pipe. Pulling the lever forces the top of the bracket away from the body of the machine and the base towards it, so it locks onto the rim.

The breaker can be made with no special tools. Care is needed to make the tongue sections fit together evenly, and the nut on the top of the smaller pipe needs to be aligned reasonably accurately. The gripper sides should be made together so they are identical. The slot can be done with a succession of holes cleaned out with a file, or a jig saw. The screw adjuster can be made from one piece of steel or, if more convenient, welding some square section bar. Fitting a black knob on the handle makes the tool appear quite professional.



The clamp grips the wheel rim. The socket on the top nut forces the lower foot against the tyre.



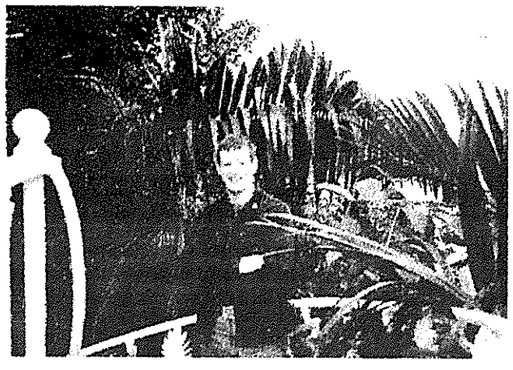
A curve on the facing edge of the foot helps when working on small diameter wheels such as ATVs.

Agricultural Assistant

An Introduction From Robert Coombe

I would first like to thank everybody involved with my transfer from Government House to the Department of Agriculture. This has been the biggest step in my career since I was first recommended to go to college by the former Governor H. E. Mr David Tatham. I will take this opportunity to explain my new role with the D.o.A. and what I achieved at college that will be of use to the D.o.A.

My first job will be to help prepare the land and plant the trees that arrived in early March. I will assist with the establishment of shelter belts at Estancia, Saladero and Port Howard. As Dr Low will only be here for short periods of time, there will have to be someone here to monitor each tree individually. My task will be to take records of their height, health and survival in the hope of future progress in shelter belts, or even a Forestry Commission in the Falklands. My job also entails the checking of all plant imports into the Islands, making sure they are all free from pests and diseases. I will also be involved in the Pasture Legume Programme, investigating the possibility of better food crops for our sheep and cattle.



I studied Horticulture for two years at Sparsholt College of Agriculture, during which time I had the opportunity of work experience at the Royal Botanical Gardens of Kew and for the Governor of Jersey.

I finished college in June 1996 and returned to work at Government House Stanley as a gardener for eight months before my transfer.

WHITEGRASS GRAZING AND BREEDING BIRDS

by Jeremy Smith, Conservation Officer

There is little information available on the density of birds within inland regions in the Falkland Islands. However, it is known that at least eight species of songbird and waders rest in habitats found in inland regions along with numerous waterfowl. Many of these species are found only in the Falklands. Furthermore, two species known to nest in inland areas, the Ruddy Headed Goose and the Black-throated Finch are of global importance as the Falklands holds most of their world populations.

Grazing is the dominant impact on the habitat and has the potential to alter the population levels of all of these species. It is therefore a priority to:

a) develop a method of evaluating the densities of different species in inland areas.

b) to compare densities of different species between grazing systems.

The Dept. of Agriculture and Falklands Conservation have been jointly developing a method of addressing these issues and have now completed two surveys. The methods used are as follows:

- Transects spaced 300m apart are walked using the grid posts as markers. These transects run west to east across the whole of the trial area.

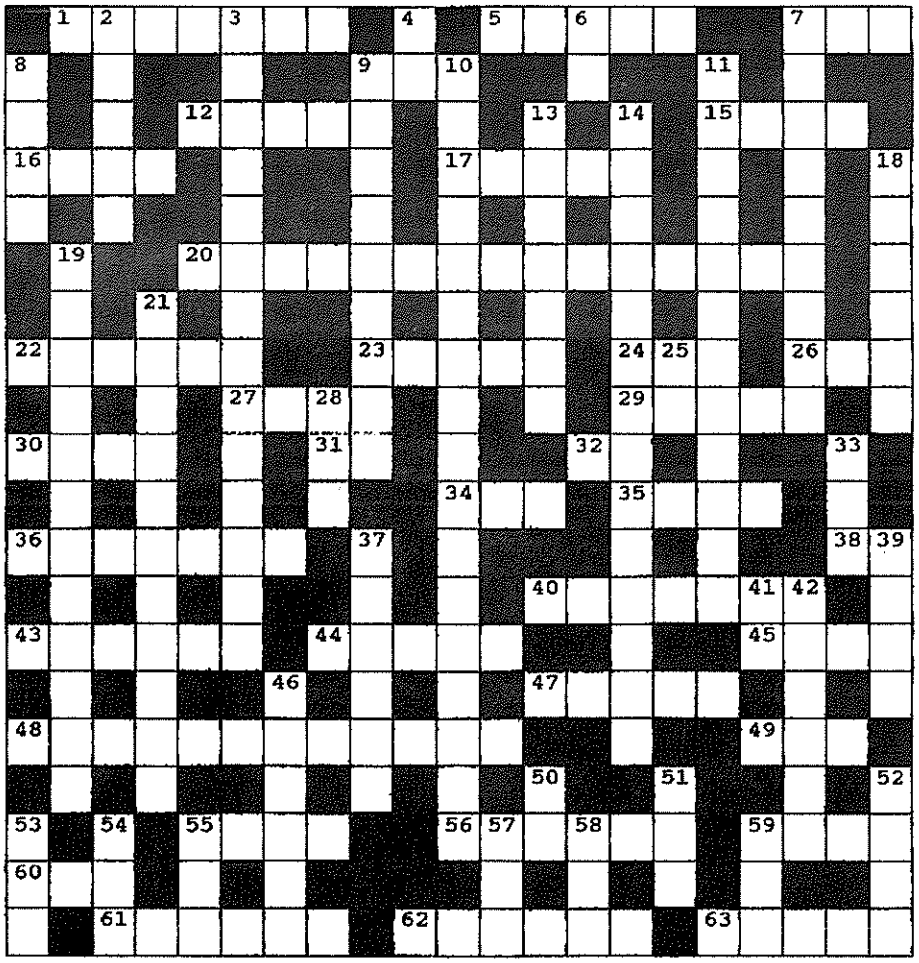
- As an observer walks a transect, all birds seen within 200m of the transect line are recorded.

- Because not all birds will be disturbed by a walker it cannot be assumed that all birds within the area are seen (e.g. Snipe will not move from a nest unless a walker passes within around 5 metres!). Therefore a mathematical formula has been developed which allows densities of different species to be determined by taking into account their 'detectability' away from the transect line.

- Observations in each 'grazing system' are recorded separately and it is then possible to calculate density differences between systems early in the trail which can be compared with results obtained in subsequent years.

Initial results from our first two surveys have indicated that densities for even the most common species are very low. Falkland Pipits and Black-throated Finches were the most commonly recorded species. Surprisingly few Snipe were found, and there was only one recording of a Grass Wren. Although the overall densities for all species were low, there was a marked increase in sightings in areas which were damper, such as stream valleys and swamps.

Despite the low numbers, we have now established a 'baseline' figure which can be used as a comparison in future years. Just as importantly, it has provided an opportunity for developing a surveying method which can be used anywhere else in the islands. As agricultural practices in the Falklands develop in the future, it is important hat its impacts are monitored and surveys such as these provide us with a valuable means of achieving this.



THE APRIL CROSS WORD

ACROSS

1. WHAT PEOPLE ARE LOOKING FOR AT A SALE
5. MALE THESPIAN
7. WEATHER OFFICE AT M.P.A
9. BAKED BEANS COME IN ONE
12. SPREAD WITH A GREASY SUBSTANCE
15. ESSENTIAL FOR EASE OF DRAFTING
16. NUTS FOR SHEEP AND CORN FOR CHICKENS
17. GIVE LESSONS
20. SHOWS FARM STOCK FIGURES
22. EAGER, ENTHUSIASTIC, PASSIONATE
23. PRECIOUS STONES
24. SHANTY OR SHED
26. CRAWL-WALK-JOG-.....
27. ..... ADMIRAL(IN THE NAVY)
29. COMBINE
30. HIT SHARPLY
31. COMPACT DISC
32. TITLE SEEN IN FRONT OF SHIPS, ... GREAT BRITAIN
34. A GOVERMENT LEVY
35. PAYMENT FOR A TEMPORY RELEASE
36. TAKE BACK INTO POSSESSION
38. INITIALS OF GOVERNORS RESIDENCE
40. AGITATED
43. SHAMELESS AND BOLD
44. COAST LINE FEATURE OF NEW ISLAND
45. RELATE STORY
47. WATER PIPES MAY DO THIS IN ICY CONDITIONS
48. DECLINE IN VALUE OR PRICE
49. PAST TENSE OF EAT
55. FORMAL VEHICLE TRACK
56. HOME FOR A DOG
59. A TRI-SERVICE MEMBER
60. FAIRLY COMMON VIRAL INFECTION
61. A ROVER WITHOUT A CARBURETTOR
62. PERMITS
63. SCALE FARM SIZE IS MEASURED IN

DOWN

2. VALUABLE POSSESSION
3. JULIE AND LILIAN IN THE DEPT. OF AGRICULTURE
4. MOTHER (SLANG)
6. TWO; TOO; .....
7. MECHANICAL DEVICES OR SYSTEM
8. MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
9. CURRENT PASTIME
10. MARCH SALE
11. RATE OF PRODUCTION OR MANUFACTURE
13. BURROWING PENGUIN
14. SEAN MILLERS OCCUPATION AT GOOSE GREEN
18. NOT PRESENT
19. WILD FRUITS IN THE ISLANDS
21. ESSENTIAL FOR PASTURE IMPROVEMENT
25. UNITED NATIONS
28. HIGH OR LOW CARD
33. ....IRON,....HEADED OR ....STY PERHAPS
37. NOT CONCENTRATED
39. PLEA OR CRY WHEN IN DANGER
41. EXTRA-TERRESTRIAL
42. A SMALL BREED OF CATTLE
46. FERMENTED FODDER CROP
50. NOT OUT
51. BEER
52. COLOUR STAINING SUBSTANCES
53. REAR OF AIRCRAFT
54. COWS CHEW IT
55. FISH EGGS
57. LONG SLIPPERY FISH
58. ....ISLAND OR ....HOUSE
59. OLD DOA NAME

WOOL PRESS

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IN THIS ISSUE:

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EDITORIAL

The weather certainly has that wintry feel about it now. Even when the sun is shining there's a nip in the air. The staff have been kept busy with many venturing out of Stanley and embarking on farm visits for various reasons. Charlene and I are busy fitting in as many fence inspections as possible before the weather prohibits us reaching some of the more inaccessible areas. Robin is visiting farms and selecting cattle for the National Herd. The veterinary and laboratory sections are being kept busy travelling around with AI, ram testing and dealing with all the usual clinical cases in camp. Bob has been visiting and talking to farmers with Rodney Lee and Owen has been mapping more boundary fences with the GPS system. In all, there has been a lot of direct contact with farmers which is a good thing all round and encourages an exchange of dialogue and opinions, most of which is constructive.

The results of the WOOL PRESS survey are in this issue. We are hoping to introduce as many of the suggestions offered over the next month or two. With the growth of the Department recently, it is not such a difficult job trying to cajole enough articles out of people to fill our 20 pages, but it would still be nice if we could have at least one farmer contribution each issue. It doesn't have to be pages.

Calendar items for May that spring to mind are the May Ball and the Dog Trials. I quite like the expression on the dog's face in the cartoon below ... a cross between defeat and bewilderment !

THIS MONTH'S CONTRIBUTORS

Hugh Marsden	Farm Management Specialist, DoA.
Robin Thompson	Beef Specialist, DoA.
Bob Reid	Director of Agriculture, DoA, Goose Green.
David Parsons	Legume Agronomist, DoA.
Mandy McLeod	Adviser (Economics) / Training Officer, DoA.
Sean Miller	Sheep Husbandry Officer, DoA, Goose Green.
Andrew Coe	Senior Veterinary Officer, DoA.
Caroline Lamb	Veterinary Officer, DoA.
Doug Cartridge	Wool Adviser, DoA.
Robert Coombe	Field Assistant (Forestry), DoA.
Sharon Halford	Councillor / Chairperson, Agricultural Management Committee.

AGRICULTURAL MANAGEMENT COMMITTEE - MEETING REPORT

from Sharon Halford

At the recent A.M.C. Meeting held on the 22nd April, it was noted that during the discussions with Rodney Lee and Bob Reid on the Policy Document, many farmers had asked who was actually on the committee. The answer is as follows: Councillor S. Halford (Chair); R. Reid and O. Summers (Department of Agriculture); R. Wagner (Economic Adviser - Treasury); H. Normand and I. Hansen (F.I.D.C. Board); C. Phillips and C. May (Farmers Association); N. Watson (Sheep Owners Association); P. Robertson (Falkland Farmers Representative).

It was noted that the meetings held around camp by Rodney Lee and Bob Reid were far more productive than the general meeting in Stanley. Some of the topics raised were pasture improvement, a machinery pool, subsidy for fertiliser, cattle floor price, cattle yards, fencing subsidy, shelterbelts, tourism, airfares and shipping. It was thought that regular meetings of this type with farmers would be useful to continue to get feed-back and ideas for future requirements.

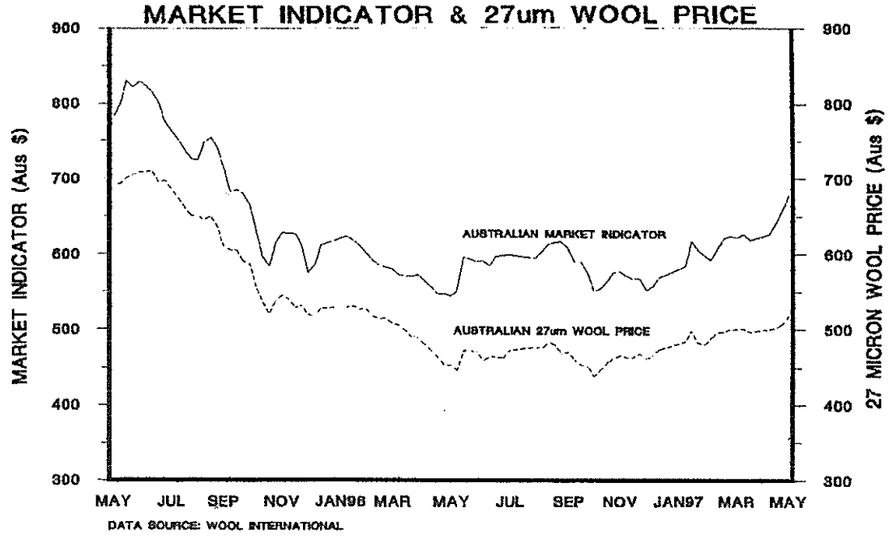
The main part of this A.M.C. meeting was taken up by Robin Thompson (Beef Specialist - DOA), who gave an informative presentation on his proposed beef programme.

WOOL MARKET

by Hugh Marsden

The Australian Wool Market has made significant gains since the Easter recess with prices at last moving back towards break even levels. Prices for best style merino fleeces were particularly strong and this could suggest that the market is moving towards a period of more sustained recovery.

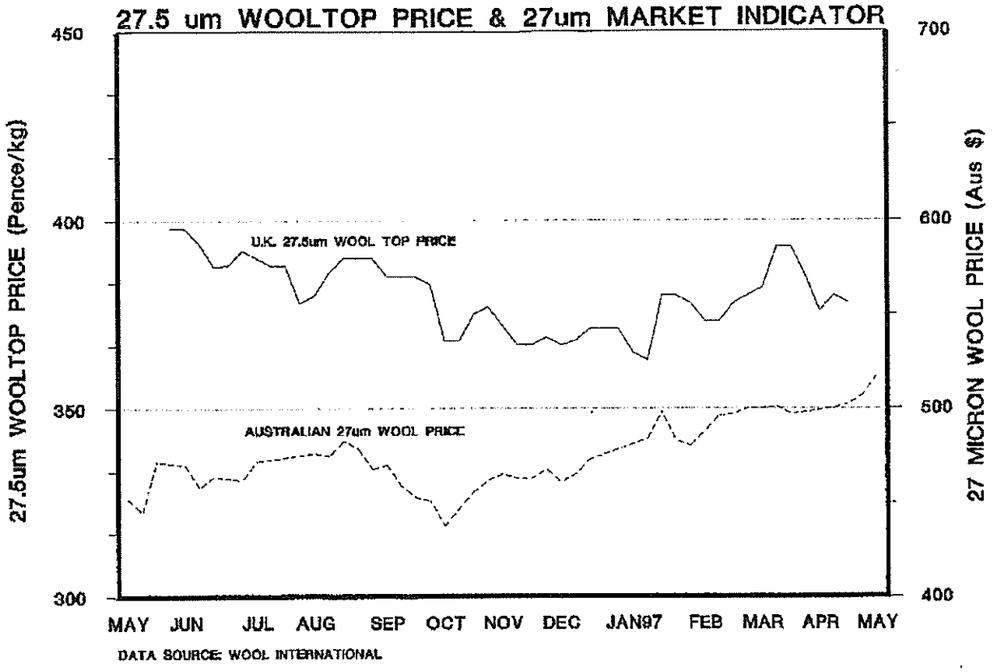
The market Indicator advanced by 59 cents during April to close at a seasonal high of 678 cents/kg clean on the 2nd May.



The 27um Indicator also continued to make steady progress. It advanced by a more modest 21 cents during the month to close at 518 cents/kg.

Wool International capitalised on market conditions and achieved stockpile sales that greatly exceeded legislated requirements. April sales from the stockpile averaged 20,459 bales/week whereas the legislated requirement is just 11,250 bales. Wool International has already matched the June quarterly sales requirement and started to make major inroads into it's September sales target. On the 2nd May, the Wool International stockpile stood at 1,712,835 bales.

A weakening of the Australian $ in March and early April has meant that U.K Wool Prices have been slow to match the improving market conditions in Australia. The U.K wool top market deteriorated considerably during the second half of March and early April but has recently shown signs of recovery. Prices for finer wool categories appear to have held firm and also shown greater signs of recovery.



Latest exchange rate figures suggest that the Aus$/Sterling exchange rate has remained unchanged over the month at 215 cents/£. It is still too early to gauge the likely effects of the recent U.K election on the currency markets. There is a perception that sterling had been trading on the high side prior to the election and that any movement could result in a weaker pound.

Enclosed with this wool press are the livestock ordinance forms.

Your prompt return of the completed forms (figures as at 31st May 1997) will be greatly appreciated.

The sooner we have all the returns back, the sooner we can publish the Annual Farming Statistics. THANK YOU.

WOOL PRESS SURVEY

WELL, HAVE WE GOT IT RIGHT OR NOT ?

by Mandy McLeod

With the February Wool Press we sent out a brief questionnaire to farmers in the Falklands, asking for a few minutes of their time to think about the Wool Press and return their comments to us. Providing the comments were constructive it didn't matter if they were good or bad, we wanted to know. It would seem from the replies (34%) that in general most of our readers are happy with the layout and content. From an editors point of view any comments made were positive. I will endeavour in the next few paragraphs to sum up the replies.

Some things that were requested for future editions were more articles about livestock, including animal welfare and husbandry , not just of sheep, but of all animals in agriculture in the Falklands. On the animal side, there were also requests for a 'vets corner' to include interesting clinical cases that have occurred in the Falklands. - *I'll have a word with Caroline and Andrew.*

Several people asked for more 'up-dates' and information regarding the department itself in terms of the various trials, the National Stud Flock and meeting reports from the different agriculturally connected bodies and committees. - *The reports of AMC are already a fairly regular feature, as and when they have meetings, and the NSF tends to have a brief report every quarter. As for up-dates on trials and happenings within the department, I will make an effort to keep you all better informed. New staff always introduce themselves with an article and departures are always mentioned in the editorial.*

We had requests for several things to be put in the Wool Press, but some of these are already printed in the Farm Management Handbook which all farmers should have. *It is easier to pick up the last FMH edition and look up prices than it is to remember which edition of the Wool Press it was in. However, as the FMH is not published on an annual basis at the moment, any up-dates of major agreements or terms will be sought by the editors and put in the Wool Press. (Charlene is currently collecting up to date information for a new edition of the FMH to be published later this year. Likewise, the Wool Market Report each month shows comparative wool prices which was also requested.*

There were many good suggestions for "one off" articles, which we hope to provide in future issues. Please send us any suggestions you have at any time. You don't have to wait for another questionnaire.

There were some areas of contradiction amongst the readership. Some commented that they wanted more information on products, others thought it was an area that could be left out of the Wool Press. *As it doesn't tend to take up a lot of space and there is some indecision, I think it is probably best to leave 'products' the way it is.* It was requested that the crossword take up less space. *We've already dealt with this as you will see from this issue.*

There was a call for 'no more public debate like that of the QFW in a recent issue'. *I quite like public debate and discussion, so long as it is constructive to Falkland farming. I wasn't completely happy about the QFW letters either (it was a bit heavy), but as stated in the editorial of that month, there was so much rumour that the decision was made that all parties could air their views once and for all so that farmers could form their own opinions.*

In all, we (the editors) got some good feed-back from the replies. Many thanks for your co-operation. We hope to continue providing you with a readable, useful paper that can be used for reference well into the future. With the growth of the department and it's activities we may have to increase the number of pages to keep you fully informed.

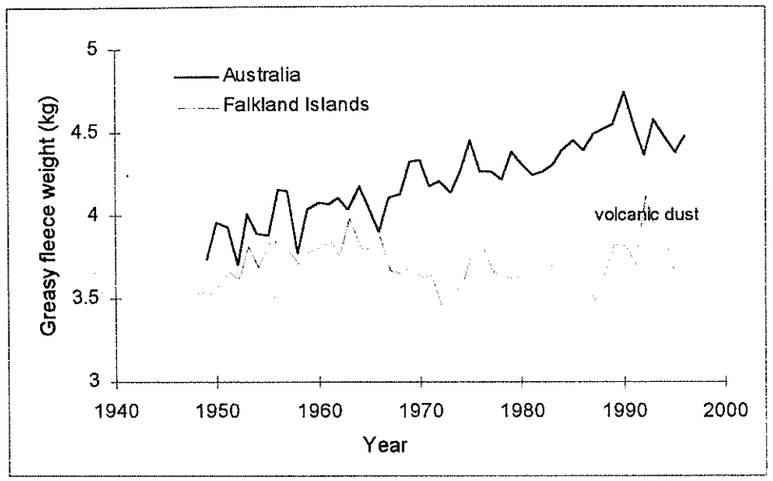
Oh! One other comment that was made by several people was "It would be nice to see more farmer contributions". - *I'm afraid that's down to you.*

FLOCKING HELL (OR HEAVEN)! ARE YOUR FLOCKS MAKING PROGRESS?

by Sean Miller

One of the questions facing the Falkland Islands' wool industry is whether it is being left behind in the wake of advances in wool production in other parts of the world. For example, the graph below, whilst not completely fair given that the Australian figures include sheep production from areas of improved pasture as well as rangelands, indicates a widening gap in production between the Falklands and Australia.

Figure 1. Comparison of annual, per head greasy fleece weights between Australian and Falkland Islands' sheep between 1949 and 1995.



So what can we do to get the Falklands on an upwards path? Two factors immediately come to mind: improved feed quality, and improved animal genetics. On the feed side of the equation, the legume introduction programme (Bob Reid and David Parsons), and the Fitzroy grazing management trial (Aidan Kerr) aim to improve feed quality and help increase the Islands' wool clip. In the mean time, improving animal genetics is an objective all farmers can strive for.

Travelling around the Islands so far, it is obvious that there are some very good sheep around. However, the best may not always be made of them. A major limitation to genetic progress is the reliance on the ram to provide most of the progress. If selection can be made within the ewe flock as well, progress can be increased significantly. At the moment, this appears to be restricted by the low average lamb marking percentage and high hogget death rates. But this is not the case for all farms, as on both West and East Falkland some farms achieve high marking percentages and low hogget death rates.

The following example is intended to get you thinking about how many lambs and surviving hoggets you need to get on the ground to make real genetic progress.

Assumptions:

1. Ewes and wethers are cast for age at 7.5 years
2. Annual loss of ewes = 10% and wethers = 5%
3. Annual replacements within the flock are therefore;
   - 30% of total number for ewe flock
   - 25% of total number for wether flock
4. Equivalent numbers of females and males are born
5. Annual loss of shearlings = 5%

Using these assumptions, a flock running 1500 ewes and 1500 wethers requires 450 shearling ewes and 375 shearling wethers surviving each year to enter the main ewe and wether flocks, just to maintain the age structure.

Table 1. Number of shearling ewes and wethers surviving to enter the main flock at a range of lamb marking percentages and hogget death rates.

	Marking percentage			
Hogget deaths	50%	60%	70%	80%
20%	285	342	399	**456**
15%	303	363	424	**584**
10%	320	385	**448**	**513**
5%	338	406	**474**	**541**

Those figures underlined indicate the point at which the number of surviving wethers equals or exceeds the number required for annual replacement, and the figures in bold type indicate the point at which the number of surviving ewes equals or exceeds the number required for annual replacement.

The basis of any genetic improvement program is to select and retain the best animals of each generation. In practical terms, this means culling sheep which have obvious faults (i.e. black fibres and spots, poor wool quality, excessively woolly faces, and structural problems such as poor feet and mouths etc.). On average, 5 to 10% of surviving shearlings will have some of these faults, requiring that they be culled. By doing no more than this basic culling, genetic progress is restricted to that provided by the quality of the rams you are using. Reducing the figures in Table 1 by this basic culling rate shows that it is necessary to achieve 70% marking with no more than 15% hogget deaths to have sufficient wethers to maintain the present state of the wether flock. More importantly, 80% marking with no more than 15% hogget deaths is required to have sufficient ewes to maintain the present state of the ewe flock. Anything less than this and the genetic merit of the ewe flock may in fact decline, and any advantage provided by the superiority of the rams is negated.

The benefits of improved lambing and hogget survival do not just end with the genetic progress of the ewe flock. The increase in the number of wethers produced allows you to be more selective within those you keep, and given that you select for the right traits, ultimately improves the quantity and quality of the clip. Selling surplus ewes and wethers can also add vital pounds to your pocket.

So how does your flock fare? Try replacing the figures in the *Assumptions* and Table 1 with your own figures, and see whether your current lamb marking and hogget survival rates are sufficient or could be improved. Remember to be realistic when you do this, as the better the quality of the information you put in, the better the information you get out.

SOME BASICS ABOUT FERTILISER (PART II)

by Bob Reid

When the decision is made that fertiliser will be required then the next questions to be answered are as follows:

What is the right kind of fertiliser?

At the present time in the Falklands our re-seeds have no legume component therefore any response to fertiliser will come from nitrogen (N) only. This is clearly evident when we see the bright urine patches around the settlement fields (Urine being high in N). Fertiliser nitrogen comes in many forms but the most commonly used are:

Ammonium Nitrate "Nitram"	34% N
Ammonium Sulphate "Sulphate Of Ammonia"	21% N
Ammonium Nitrate + Limestone "Nitro-chalk"	25% N
Urea	46% N

On our acid soils sulphate of ammonia is not to be recommended, on least for a regular basis, as it will only further acidify the already very acid soils. The choice then comes down to price and value for money, and for simple fertiliser valuation is easy. By multiplying the figure for the price in £ per tonne by 10 we get the price of pence per 100kg. If then the amount is divided by the percentage plant food in the fertiliser the result is the price per kg of plant food. A recent quotation for Nitram in the UK at £138 per tonne represents 30p per kg of nitrogen.

When is the right time and place to apply?

Fertilisers must be applied so that they can be reached by the roots of the plant just when they are needed if they are to be used efficiently. Nitrogen fertilisers are soluble in water, they move in soil moisture and it is usually satisfactory to spread them on the top of the soil for rain to work in. With grass pastures containing no legume, timing of nitrogen is simple, except in spring there will be little growth without fertiliser nitrogen and a dressing of 75kg/ha of N will be required. This is almost the minimum amount needed to get a worthwhile response, and depending on the grass species and the grazing management, a response up to 300kg/ha from applied fertiliser are to be expected.

A good return usually comes from fertiliser N used in early spring and in late summer to produce extra grass early and late in the season. One kilogram of nitrogen applied in the early spring increases the yield of grass by 10 to 40 kg of dry matter, that is for every kg applied 90 - 360 kg's of green grass are produced.

To be continued.....

1991 WOOL COLLAPSE - THE CONTRIBUTING FACTORS

by Hugh Marsden

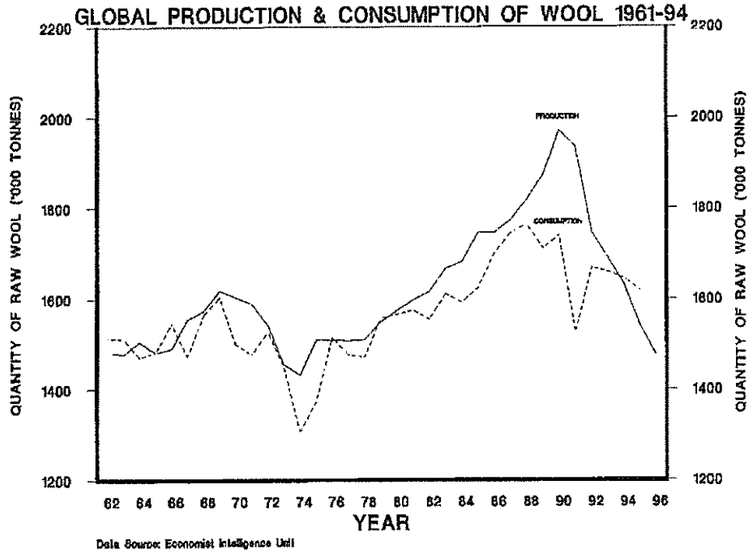
Most readers of the Wool Press will be aware that the Department of Agriculture has been hosting a series of fortnightly seminars on industry-related subjects. Sadly, I was not to be spared the torture chamber and consequently presented a seminar several weeks ago.

The theme of the seminar was an examination of the factors that led to the collapse of the wool market in 1991. These factors are many, but principally included the following causes:

1. The collapse in communist wool purchases.
2. A deterioration in the economies of developed countries.
3. The inappropriate management of the Australian Minimum Reserve Price Scheme.
4. The activities of wool speculators.
5. Massive overproduction in the late 1980's.

Perhaps the best indication of why the market collapsed is shown in one of many graphs that I presented at the seminar (see below.) This graph shows that even a basic understanding of economics can explain the events of the last six years.

Since the introduction of the Minimum Reserve Price Scheme in the early 1970's, Global wool production exceeded consumption in virtually every year until 1994. It is therefore apparent that the underlying cause of the market collapse had been simmering away for almost 30 years. In February 1991, the World had accumulated so much wool in store it could have afforded to have stopped shearing sheep for more than 1.6 years. The collapse was therefore inevitable and almost unavoidable.



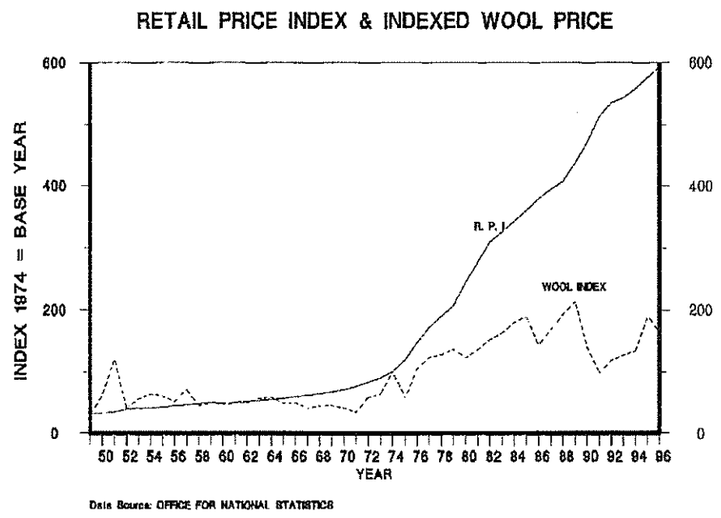
The graph also serves to remind the doom and gloom merchants that the demand for wool is not in a state of terminal decline.

Increased consumption of wool in developing countries has led to a steady increase in the overall consumption of wool.

Perhaps the second most interesting graph is the comparison between the indexed price of wool and the U. K retail price index. For the non-economists, this graph simply charts the percentage change in wool prices against the percentage change in all goods and services.

If we consider the overproduction of wool that has occurred in the last 30 years, it should come as no surprise that the price of wool has failed to keep pace.

Perhaps the most important message in this graph is that Falkland Island producers can not afford to stand still. To do so, would result in a steady decline in the real value of farm incomes.

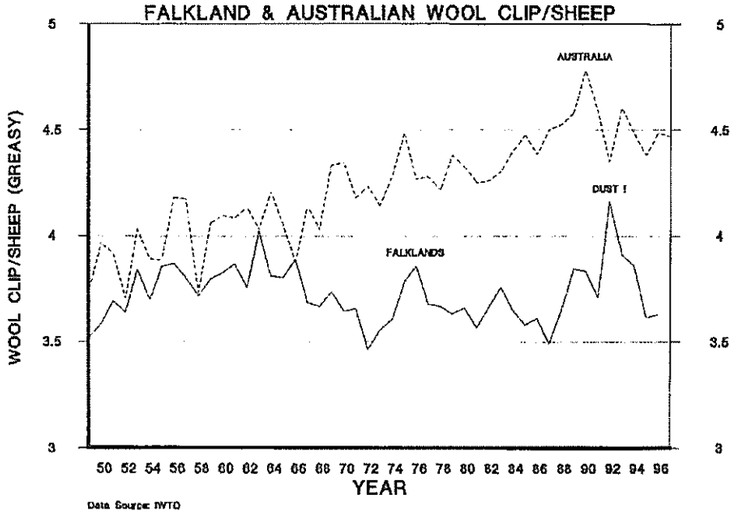


As wool growers we should also remember that we are producing a commodity that has remained virtually unchanged since man started shearing sheep. I feel it is important to contrast this lack of change with the massive technological improvements in other goods and services.

In simpler terms, the characteristics of a 27 micron fleece have not changed while the computer Land Rover and other products most certainly have. It should therefore come as no surprise that the things that we buy cost a lot more fleeces that they did 40 years ago!

Perhaps the best reason for not standing still lies in the performance and achievements of our competitors.

If we compare the figures for the Australian greasy wool clip per sheep with that of the Falkland Islands since 1950 we can see that the productivity of Falkland Island sheep has been falling behind for a number of years.



While it can be argued that the productivity of Australian sheep has been increased through the use of expensive inputs such as fertilisers and feedstuffs; we can not ignore the fact that the Australians have had far greater success in improving the husbandry and genetic composition of their national flock.

The challenge for the Falkland Islands in the future must surely be to develop sustainable systems of farming that can increase the productivity and efficiency of Falkland Island Agriculture. Any adjustments to existing farming practices must not be purely production orientated, but also be capable of yielding an economic return to the farmer.

FIRST AID TIPS

by Andrew Coe

Caroline and I are only too happy to speak to you on the phone and give you advice on first aid for your animals. But to help you out and for times when you might not be able to get hold of us, I've put together some hopefully common sense advice for common sorts of problems. There are quite a lot of things you can do at home that will stop minor problems turning into major ones.

Cuts, bites and penetrating wounds.

Cuts, and bites in particular are very prone to become infected with bacteria. The animals own immune system is usually very good at combating this infection but you can do quite a lot to assist it. Most important is to make sure that infection isn't sealed inside the animal under the skin because that's when abscesses develop. The worst type of wounds for this are deep puncture wounds such as from nails or another animals teeth because in these cases infection is injected deep into the tissues and the hole in the skin quickly heals over.

Firstly then, with any wound the two objectives are to clean it and establish drainage so that infection has an escape route. In long haired dogs, cats, sheep, horses and cows with 'teddy bear' winter coats, you should clip away the hair or wool so that it can't stick down over the wound and seal it. Then with warm salt water (two teaspoons in a pint) give the wound a firm, thorough clean. With small puncture wounds, even quite fresh ones, you may need to pull the scab off to establish that all important drainage hole. Try and clean the wound two or three times a day for three or four days and in uncomplicated cases that will probably do the trick. It is amazing how quickly even large wounds will heal if they receive this initial treatment, especially in the case of dogs. Complications to watch out for are the development of a painful swelling around the wound or the animal becoming dull and refusing to eat, all signs of a secondary infection that will probably need antibiotics. In these cases always call us for advice. If you can't get us but you have some Propen antibiotic at home then give the following:

Cat	-	1 ml under the skin
Dog	-	3 ml under the skin
Sheep	-	5 ml into the muscle at the top of the hind leg
Cow	-	20 ml into the muscle at the top of the hind leg
Horse	-	20 ml into the muscle of the neck or top of the hind leg

Abscesses

Sometimes even with prompt first aid, an abscess will develop. This is especially likely in cats since the bite from another cat leaves only a tiny wound and often goes undetected. An abscess is essentially a discrete pocket of pus, like a huge boil and they can be very painful. They must burst in order for all the infection and pus to drain away and allow healing to occur. If the abscess has already burst when you discover it then treat it as you would a wound by trimming away all the hair around it and cleaning it 3 times a day with warm salt water. It is very important not to let the hole heal over too quickly because if it does another abscess will form and the whole process be repeated.

If you discover an abscess that hasn't burst then give us a call. If you can't contact us then bathing the skin over the abscess with hot salt water will encourage it to come to a head and burst by itself. Usually if we are able to examine the animal we will hasten the process by lancing the abscess with a scalpel but I don't recommend you attempt this without discussing it with us first. If the animal is dull and not eating then by all means give it some Propen and keep trying to contact us.

Bleeding

Most wounds bleed but it is the quantity of blood that is lost that is of importance. Wounds that ooze blood will usually stop by themselves within twenty or thirty minutes. Some wounds may slice through major veins and arteries and actually gush blood and in these cases you need to do something about it urgently. As a rule of thumb, if there is a constant stream of blood running from the wound to the ground then you need to try and stop it. If there isn't then it will probably stop itself. The simplest and most effective way to stop bleeding is by applying pressure. With a wound on a leg this is usually fairly easy. Simply place a large piece of cotton wool around the leg over the wound and then bandage tightly over it. If you haven't got bandage then improvise, torn up sheets, electrical tape, anything to put pressure on. If the blood seeps through then put some more cotton wool on and another bandage tightly over it again. Keep doing that until the blood doesn't seep through. **DON'T** take the original bandage off and start again. Once you're satisfied that the bleeding has stopped give us a ring. As a rule don't leave a pressure bandage on for more than 24 hours.

If the bleeding is coming from the neck or body then pressure bandaging is a lot more difficult. In these cases simply holding a big wad of cotton wool on the bleeding area and pressing hard on it for several minutes may be enough to stop the bleeding.

Broken Legs

Dogs and Cats: Dogs and cats can often move around surprisingly well on 3 legs with a broken leg dangling, but it doesn't do them a lot of good! I don't advise you to try splinting them. Confine the animal to a small area of the room, kennel or a basket and contact us as soon as you can. Most broken bones in dogs and cats can be mended to give 90 to 100% functional normality.

Horses and Cattle: In most cases a broken leg, particularly if it is one of the long bones means that the animal will need to be destroyed. The only advice I can give here is to use common sense. If you are miles from the settlement and your horse falls and snaps its leg in half, then if you have a gun with you, I would advise you to shoot it. If it hurts its leg in the coral and your not sure if it's broken or not then phone us and we'll come and have a look. In the meantime of course, keep it confined.

Sheep: Sheep and lambs in particular, can often have broken legs splinted. I know a lot of farmers already do this. Just a few tips:

1. Try and imobilise the joints immediatly above and below the break.

2. Use some padding such as cotton wool or cotton sheet between the splinting material (wood, plastic piping, metal tubing etc) and the skin to try and minimise rubbing.

3. Don't leave the splint on for more than 3 weeks in young lambs without changing it because they grow so fast.

None of the above advice is designed to **STOP** you calling **US** for advice! It's purpose is to help you to decide if you need our advice and to enable you to give first aid if you can't immediately contact us. ***Good Luck!***

FALKLANDS BEEF INDUSTRY

by Robin Thompson

Currently beef cattle come a very long second to sheep farming. This raises a number of questions including :

- Do we need a beef industry here ?
- How should beef be integrated with sheep on the farm ?
- How do we get a beef industry ?
- Will the way of farming cattle have to change ?

The following is an attempt to raise some of the issues pertaining to these questions so as the debate can continue, and an understanding can be gained about what the Department of Agriculture is doing with regard to beef industry development.

History tells us that there was once 10,000 cattle on the Falkland Islands. At this time there were less sheep and many of the cattle were kept to supply milk, butter and cream, with meat being a bonus. Wool price booms, the advent of 'cardboard cows' and the perceived destructiveness of cattle has led to a demise in their numbers where only 1,400 cows remain. Wool booms are invariably followed by busts, so if our farming becomes dependent upon this one industry then our income and lifestyle will follow a similar pattern. It seems sensible therefore to 'put your eggs in more than one basket' and spread the risk over more than one enterprise. Our farmers are basically animal orientated and cattle survive and produce here, so diversification into beef seems more logical.

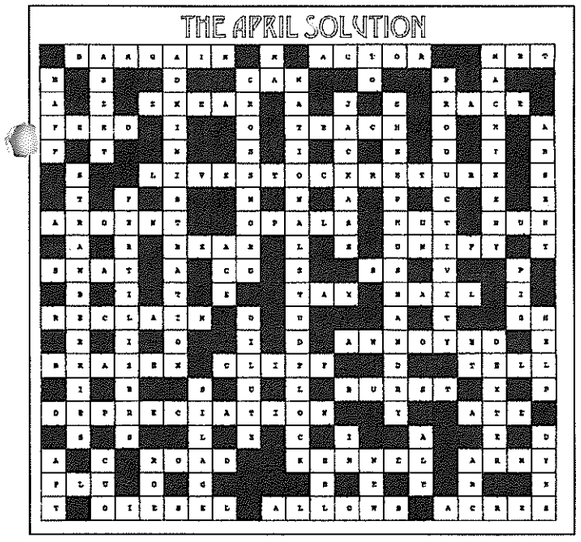
Because of the variability of land within farms it is likely that farms only running sheep will eventuate. I believe that beef cattle managed properly can be complimentary to sheep. This is because of their different grazing pattern and ability to eat a different level within the pasture sward. Consequently most farms could add some cattle without affecting sheep numbers. We don't know the proportions yet, but hopefully some future research will give us some ideas. There may be opportunities for some farms to specialise in breeding and others to be specialist beef 'finishers'. If this happens, some sort of more formal trading mechanism for animals will develop.

Getting a beef industry established here is much more complex an issue than just putting a bull with some cows and awaiting to kill the progeny. Our beef production must develop in tandem with the abattoir, transport system, marketing, management skills, and most importantly feeding to produce high quality products acceptable to the market. The Department of Agriculture is addressing all these issues which are not unique to beef but are integral to the future development and sustainability of our sheep industry. So if we are to get a beef industry here, all future articles in the Wool Press will discuss how we are tackling them.

My perception of the beef industry here at the moment is that the animals are almost treated as a wild animal that can be harvested annually for some extra Winter cash and a change of diet. If beef is to be a real industry here cattle must be viewed in the same manner as sheep. This means that we must accept that there are specific husbandry demands that need to be met in order to manage animals for acceptable productivity. Such demands will include control and handling methods, breeding programmes, meeting their feed requirements for the required growth rate and meeting their animal health requirements. Satisfying the demands will require additional knowledge so that managers can be proactive in their activities rather than being reactive to crises as they happen. Again these issues will be the subject of future articles here.

In summary, I along with a number of farmers believe there is a future for a beef industry here but we must start planning now for it's development. Its ultimate size will depend upon a number of factors some of which are out of our control at present, but our short term aim should be at least to fully supply the domestic needs of the Islands with a quality product that is available throughout the year.

You can help now by not killing potential breeding heifers for beef this year. Either keep them for your future cows or contact me and I will see if they are suitable for inclusion in the National Herd currently being put together.



ANOTHER TIP ON GIVING SCREW DRIVERS MORE STICKING POWER

Magnetising your screwdriver so it will pick up small screws and locate them in awkward places is a good solution to the tricky problem, but it only works with steel screws.

Non-magnetic screws can be persuaded to stick on the end of a screwdriver using a small piece of bluetac. Cleaning grease and dirt off the screwdriver with a solvent is advisable as this will permit using a minimal size piece of bluetac.

The trick can get you out of trouble on many occasions particularly when working on electrical equipment, where brass is often found.

EX A.T.S TRAINEE (IAN ASHWORTH) PROGRESS REPORT

Last week Ian Ashworth of Beckside Farm (Stanley Dairy Ltd), popped into the department at my request to have a chat. I was interested to know how he was doing on his course at Bicton Agricultural College (Devon) and whether he would recommend it to others who were agricultural mechanically minded. Ian conveyed the following:

Initially he successfully completed a one year First Diploma in Agricultural Engineering. This was a very 'hands-on' course which gave Ian plenty of practical experience. He is now continuing with another practically orientated course (although there is a greater amount of 'lecture' time than before). Upon successful completion of this one year course Ian will have an Advanced National Certificate in Farm Mechanic Mechanisation. We wish him well in his exams over the next few months and look forward to seeing him back in the Islands later in the year.

Ian recommends the courses he took and the college which he says "has a very friendly atmosphere".

ARTIFICIAL INSEMINATION AND WHAT IT ENTAILS

by Caroline Lamb

AI is widely used throughout the world in most domestic animals, and the principal rules for managing the recipient animals are similar across the board.

Here in the Falklands we currently use AI on cattle and sheep. The method differs for the 2 species - cattle can be inseminated using a pipette inserted through the cervix while sheep, due to a much narrower cervix, are done laparoscopically. This involves restraining the ewe on her back in a cradle, injecting the area with local anaesthetic, and then inserting a laparoscope into her belly to visualise the uterus. Semen can then be injected directly into the uterus. Whichever method is used, the recipient animals must be synchronised beforehand so they are in heat at the time of insemination. This is done using hormonal preparations - again different methods for cattle and sheep, but for both at least 2 weeks are needed between the start of the synchronisation programme and the date of insemination.

However, planning for any AI programme needs to be considered well prior to this to allow time to select the animals and manage them so that they are in optimum condition on the day.

So, what animals to select?

For cattle, look for hardy animals that keep in good condition year-round and can raise a good calf, have all four udder quarters working and are preferably tame to make life easier when it comes to both the synchronising injections and the inseminations. Heifers are fine as long as they are well grown out. Avoid cows with hoof deformities or poor udder conformation as these traits may be passed to the offspring.

If using semen from a large beef breed the size of the cow is important, as a smaller cow (especially a heifer) may have calving difficulties.

For sheep, look for wanted characteristics such as good body weight, fleece weights or micron measurement. Check udder - 2 working teats with no shearing cuts. Maiden ewes are fine, if older be sure they have raised a good healthy lamb in the past.

Management of selected animals:

One of the most important aspects is the condition of the animals. They should have good body weight (not overfat) and on be an increasing plane of nutrition at the time of the programme to maximise their fertility and chances of conception.

From one month prior to beginning the programme animals should not be handled for any routine management procedures until at least 1 month afterwards, e.g. avoid shearing, drafting and drenching in this period. Also avoid other stress factors such as travel, excessive use of dogs and long periods of feed or water deprivation.

After insemination bulls or rams may be introduced 2-3 weeks later to catch those females returning to heat.

AI is not a 100% success guarantee. In cattle you would hope for 50% conception, whereas with sheep it should be 50-70%. However, these figures are based on averages from a large number of inseminations and when only a few animals are used there can be considerably more variation in the outcome.

AN APOLOGY

In a recent article (issue 87 - February 1997) on 'Nature Conservation' covering the law and legislation, point 1 listed sanctuaries and reserves under the Wild Animals and Birds Protection Ordinance 1964 and the Nature Reserve Ordinance 1964. Mr Ian Strange pointed out to us that there were several omissions to the list, including New Island (South). We apologise to all concerned and will print an up-to-date list in the next WOOL PRESS.

GROWING MONTEREY CYPRESS (macrocarpa) FROM SEED.

by Robert Coombe

PREPARING

1) Seed cones can be taken any time of the year, so long as they are not green. Mature deep brown cones that are beginning to open are best.

2) To open the cones place them in a plastic bag in an airing cupboard. Placing them in the bottom oven in a bowl for a few days is quicker.

3) Collected seeds should be placed in tepid water for about 24 hours. All seeds that float are useless and should be discarded. Seeds that have sunk should then be left to dry out for a few hours.

PROPAGATING

1) The best time to sow macrocarpa indoors is in late winter (July/August).

2) Fill a tray (the size of an A4 sheet of paper is ideal) with potting compost or a suitable peat mixture of your own made from peat, peat ash and freshwater sand (4:2:1). *Don't use salty sand from the beach.*

3) Spread the seeds at about 5mm apart over the surface of the tray. This spacing should prevent their roots tangling which will improve the pricking out stage.

4) Place some good compost in a fine sieve. Shake over the top of the tray until the seeds are covered and at a depth of about 3mm.

5) Place the tray on the floor and from a height apply some water with a fine rose on the end of the watering can. The height helps the water to spread out more and does not disturb the fine surface of the tray.

6) Place the tray into a plastic carrier bag and place it in either a refrigerator at 4°C or a freezer <0°C for about 3 to 6 weeks. This will then break the dormancy of the seed which normally would take 5-6 months.

7) After this period remove the plastic bag and replace with a clear bag (e.g. freezer bags) and put into a room at 18 to 24°C. Place the tray out of direct sunlight and shade it with a sheet of newspaper. Forcing is the technical term given to increasing plant growth by controlling the environment.

8) There is no need to water the tray as the freezer bag will conserve the moisture that would have evaporated.

PRICKING OUT AND HARDENING OFF

1) When seedlings do emerge they will have 3 seed leaves called cotyledons. When the next set of true leaves appear the seedlings will be about 5cm tall and by this time there should be quite a few seedlings in the tray.

2) Place the tray into a cold-frame or unheated poly-tunnel and leave for 3-6 weeks until fully hardy. Water occasionally and do not let the tray dry out.

3) Using a blunt knife or similar instrument, carefully loosen the soil whilst holding the seedlings by the cotyledons. Damage to the roots could affect the future growth of the tree.

4) Prick out the seedlings and transplant them into either pots or a small nursery, which ever is desired.

5) Leave the trees in the nursery or in their pots to over winter. The optimum size for digging up the following winter is between 6 and 12 inches. Be careful not to disturb the root system as macrocarpa roots are very sensitive to disturbance. Make sure most of the soil stays on the roots when planting. During summer periods always keep the soil moist.

Remember: PLANNING PREPARATION PERSISTENCE AND PATIENCE are the key factors to successfully growing trees Please call me if you have any queries.

OVERSEAS INFLUENCE AT TAFE

Source: The Advocate 22.2.97. Tasmania.

Two overseas students chose Burnie over Brisbane because of the weather... now there's a switch. Agata Gajda (19) of Norway, and **Gillian Phillips (22) of the Falkland Islands,** began their first week at the North West Institute of TAFE on Monday. The pair have enrolled to study Agriculture for two years and didn't think they'd cope with Brisbane's heat. Neither Student could undertake a similar course at home.

Agata's ultimate vision involves ecological Farming in Norway or Sweden, while Gillian will head back to the Falklands for at least two years to repay her tuition. Gillian previously worked as an Agricultural Field Assistant at the Falkland Islands Department of Agriculture where she looked after 55 ewes imported from Tasmania in 1992. It was the Director of Agriculture, a former Tasmanian, who pointed her in this direction. "Tasmania's way of farming is similar to the Falklands" she said.

The associate director of client services at TAFE said it had been at least four years since students from other countries had enrolled at the college. He said international students added a welcome cultural diversity to the student population. They are also financially more lucrative.

IS WOOL ALL IT'S CRACKED UP TO BE?

by Doug Cartridge

If wool growers are to survive in the modern world, wool must retain it's price premium over it's competing fibres. Wool has historically commanded a premium of 2.5 to 3 times the price of it's competing fibres in the international fibre market. We must strive to improve our products competitiveness in the market place. There are a few main goals and objectives of wool producers internationally that are very relevant to the Falklands.

They are:
* To increase the flexibility of wool by making it as white as possible.
* To increase fibre strength through genetic improvement and improved management.
* To change management to move the position of wool break nearer to the staple tip or base.
* To significantly reduce prickle factor.
* To optimise genetic improvement with the aid of relevant and current objective data.

It would be easy to sit back and believe that wool is a wonderful fibre. It is naturally produced, and no matter what it always commands a premium in the international fibre market. But come back to reality!! It does have properties that make it far from a premium product. For instance a description of wool as a fibre, to a manufacturer who has no knowledge of it, could go as follows:

* It is delicately wrapped in lanolin to protect it.
* Nearly 40% of it is dirt, grease and vegetable matter.
* It may contain other impurities that can be washed out for your disposal.
* It comes in all shapes and lengths.
* It is one of the heaviest and weakest fibres.
* Many people say it is prickly next to the skin.
* You can throw it into a washing machine with hot water, and tomorrow it will fit your grandchildren. Of course you can shrink and moth proof it by treating it with chemicals.
* You can't get it pure white without bleaching it.
* It's difficult to dye.
* This fibre has such good properties that you shouldn't mind paying me 2.5 to 3 times the price of competing fibres, because that's what I need to survive.
* Nor should you mind that it is expensive to process and requires a lot of processing before it can even be compared with competing fibres.

So is it such a wonderful fibre after all??

A lot of these problems can be fixed with a dedicated approach to grazing management, breeding, selection and wool preparation. Over the next month or so I will attempt to convey ways that you can improve the competitiveness of your product in the international fibre market. In the meantime think about wool's problems and try to imagine being a manufacturer, contemplating purchasing wool for the first time. **We all know wool is a wonderful natural fibre, but why?**

AN INTRODUCTION FROM DAVID PARSONS - LEGUME AGRONOMIST

Well, the fourth Australian in the Department of Agriculture has finally made it here! It's great to be here, people have been very hospitable and made my wife and I feel at home.

To give a brief introduction of myself, I was born in Derbyshire, England, and moved to Tasmania at a young age. Although I was not brought up on a farm, I have always had an interest in agriculture, probably through being forced as a youngster to dig and weed in the vegie garden! I did my schooling in Tasmania and after finishing worked in various jobs in Tasmania and Western Australia. After a break of a few years I decided to go to University and completed a four year Bachelor of Agricultural Science at the University of Tasmania. As well as the normal studies, the course involved practical work in a number of farming enterprises around Tasmania, including a ten week period with the Tasmanian Department of Primary Industries in a programme of grass and legume introduction. For my 'honours' year, I undertook an evaluation of the genus *Dorycnium*, as potential forage legumes for Tasmanian conditions. This work aimed to develop a legume able to grow well in areas of low rainfall, cold winter temperatures, and low fertility, not unlike the situation we find here.

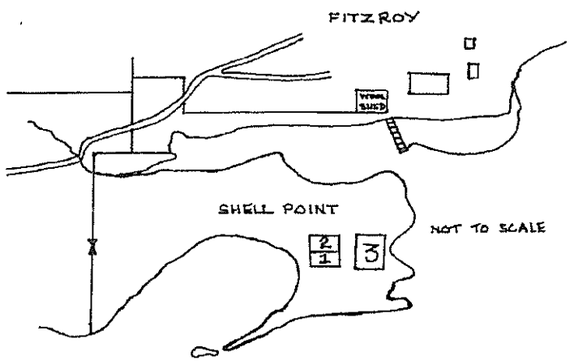
Outside of work I enjoy such activities as basketball, rock-climbing, swimming (since I got here), a couple of musical instruments, reading, and various other pursuits. My wife, Chelsea is also enjoying her stay here so far. Chelsea is an art teacher, although she is not working at the present.

All said and done, I am excited to have joined the Department of Agriculture at this time. The legume introduction programme that I will be involved in is critical to improving our pastures here. On the following page I have written a brief introduction to legumes, what they do, and why we need them in our pastures.

FITZROY VEGETABLES

by Mandy McLeod

Ron Binnie kindly provided photographs and information to enable me to produce a poster display for the 'Open Day' on the vegetable production at Fitzroy. This a summary of the poster.



SITE
The vegetable plots are situated fairly close to the settlement at Fitzroy at a place called Shell Point.

CULTIVATION
The old ground is rotovated to full depth prior to planting. Any new ground is rotovated to a depth of 3" deep in April / May and followed with a full depth rotovation in June /July. The land is then rotovated in the opposite direction at full depth in late October / early November, prior to planting.

CROPS
There are 3 plots in all and the crops grown so far consist of potatoes, root crops and brassicas. The gardens are in their 4th year of production. The following yields per season are as follows:

1993 / 94	Planted ½ tonne of potatoes, harvesting 1.2	tonnes.
1994 / 95	Planted 1.1 tonnes of potatoes, harvesting 9.5	tonnes.
1995 / 96	Planted 1.5 tonnes of potatoes, harvesting 6.9	tonnes.
	Planted 3,000 brassicas, harvesting nil.	
1996 /97	Planted 3 tonnes of potatoes, not yet harvested.	
	Planted 7,000 brassicas, harvesting 525kg to date.	
	Planted ½ an acre of root crops, harvesting 135 kg	to date.

PLANTING DATES (1996 crop)
Root crops on 10th October 95; Brassicas on 11th October 95; Potatoes in the second week of November (local seed) and the 7th - 9th December (imported seed).

pH
Plot 1 - 5.75 Plot 2 - 4.83 Plot 3 - 7.7

FERTILIZERS
Plot 1 only had 1 tonne of lime applied on the 5th September.
Root Crops had 100 Kg mixed 1.1.2 - 5.5.10 + magnesium - trace elements + 46 (P_2O_5) before planting. Brassicas had 3 x 50kg 16.16.16 (N.P.K) before planting. Potatoes had 6 x 50kg 16.16.16 (N.P.K) per acre at planting, followed by 4 x 50kg Nitrabor (15.5% N - 0.2% B) per acre as a top dressing.

The cost of fertilizers were as follows: Lime £190 per tonne; NPK 16.16.16 £12.50 per 50 kg; Nitrabor £13.75 per 50 kg.

MACHINERY USED
The farm used its own rotovator, tractor, rolls, chain harrows and vari-spreader. They also used Bonners Haulage and had the use of Stanley Growers potato planter and harvester.

ADDITIONAL COSTS
In 1993 ½ tonne of seed potatoes were purchased and 700 yards of 5 wire fencing material. In 1996 2 tonnes of seed potatoes were purchased and 7,000 brassica plants. A further investment was made by the way of fencing (in the form of wire netting) and a bird scarer gun to protect this years crop.

WHY GROW PASTURE LEGUMES?

by David Parsons

Legumes include pasture plants such as clovers, medics, vetches, and lucerne, and grain crops such as peas, beans and lupins. There are a number of reasons why the legume content of pastures is extremely important.

Firstly, with the aid of rhizobium bacteria from the soil, legumes obtain nitrogen gas from the air and convert it into nitrogenous compounds. These compounds contribute to the fertility of the soil as the plant or part of the plant dies and decomposes. Eventually, the decomposed material will form nitrates, which are the main form of nitrogen that is used by plants.

This process, called 'nitrogen fixation' takes place when the rhizobium bacteria penetrate the roots of the legume and form nodules. By carefully digging up a clover plant, as found in some settlement fields, the roots can be washed, and the nodules seen. Healthy nodules can be recognised on the roots of legumes by their pale cream/pink colouration, although some brown coloured dead nodules can be expected. Within these nodules, the bacteria are fed by the plant, and in turn nitrogenous compounds are produced for the plant to utilise. Obviously, this 'free' source of nitrogen is of great value, enabling growth of a greater quantity and quality of grass. How much is this nitrogen addition worth?

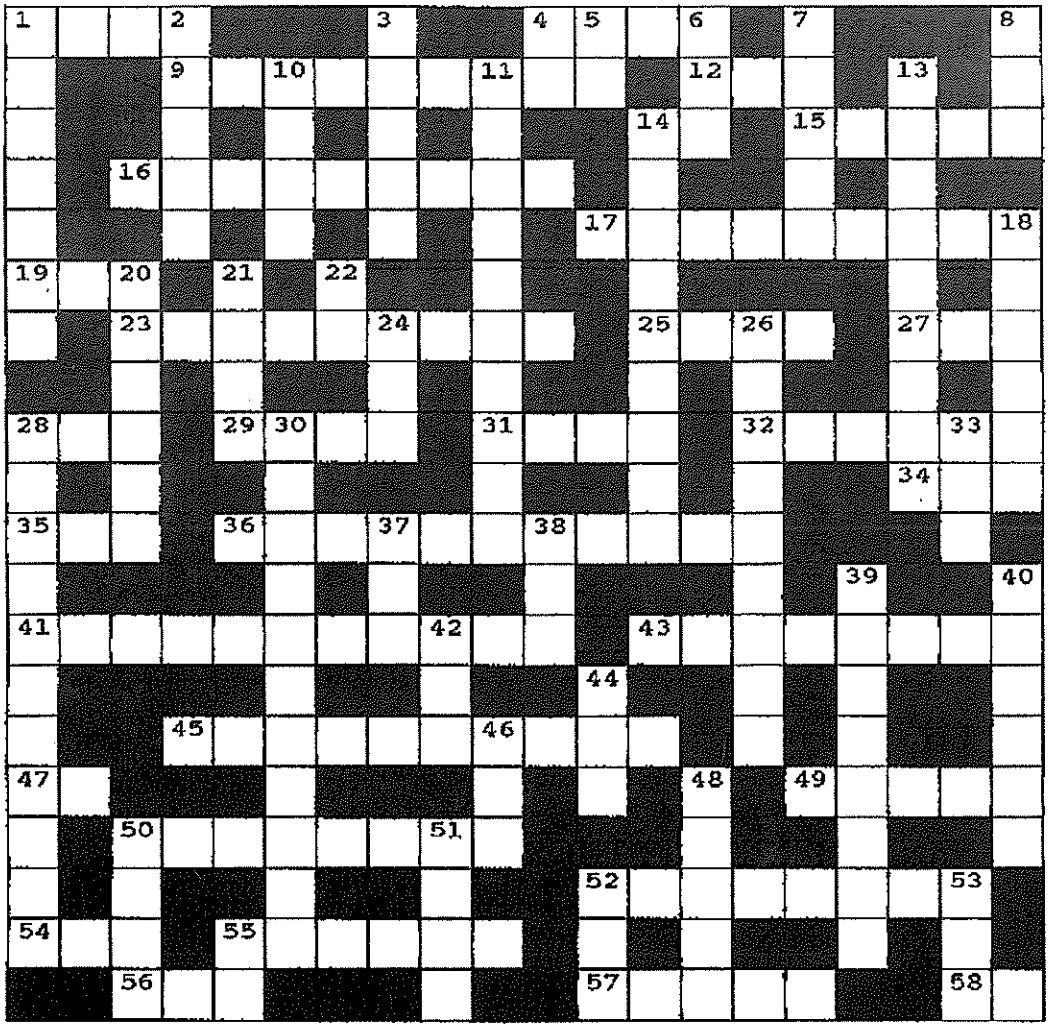
Good quality stands of legumes are capable of fixing 50 - 125 kg of nitrogen per hectare per year. For example; for a pasture able to fix 50 kg of N per hectare per year, this is equal to the addition of nearly three 50 bags of ammonium nitrate (34.5 % N). At a cost of approximately £15 per bag, this is equivalent to the input of £45 per hectare per year of free nitrogen fertiliser. Therefore, although there is an initial cost in introducing legumes, the benefits are ongoing. In addition, the unstable nature of nitrogen fertilisers often results in losses of nitrogen due to evaporation and leaching before it can be used by plants. Because the nitrogen input from legumes is a gradual process, more nitrogen will be utilised by plants than when fertilisers are used.

The nitrogen addition of legumes provides available nutrients for the grass component of the sward. This addition of nitrogen
- increases grass yields
- increases the nutritive value of the grass
- enables the growth of grasses that require a higher level of fertility.

Besides providing nitrogen, legumes are also a source of nutritious and high protein forage material. Because of these benefits, it is clear that legumes must play an important part in increasing the quality of Falkland Islands pasture. The Department of Agriculture is implementing a legume introduction programme, which will involve:
- screening a wide range of legumes for suitability
- assessing the plants for the ability to grow and persist
- developing methods to successfully sow the legumes into pasture

With the legume introduction programme, we aim to develop a legume, or a number of legumes that will grow well and provide long term benefits to pasture production.

THE MAY CROSSWORD



ACROSS

1. MEASUREMENT OR CONTAINED AREA
4. BRITISH TOGGENBURG OR ANGORA
9. USUALLY RED DISC ON REAR OF A VEHICLE
12. PAINTING, DRAWING
14. SHORT FOR DOCTOR
15. SMALL BLOOD SUCKING PARASITES
16. LIQUID STORAGE PLACE
17. PRODUCT PROMOTION TECHNIQUE
19. A DRINK AT SMOKO TIME
23. POWER SUPPLIER
25. DOG CONTROLLER
27. RECEDING TIDE
28. STONE ___, GEOLOGICAL FORMATION
29. SHEEP HOLDING AREAS
31. TYPE
32. BATCH OF PUPS OR KITTENS
34. SHORT FOR SPECIAL AIR SERVICE
35. BRITISH ANTARCTIC SURVEY
36. SIZE
41. ELECTRIC FENCING MATERIAL
43. FLEECE REMOVAL PROCESS
45. COMMON GRASS IN THE FALKLANDS
47. PERFORM AN ACTION
49. INQUIRED
50. WOOD-CUTTERS TOOL
52. MARKED WITH DIGITS
54. A GREEN VEGETABLE IN A POD
55. APHRODISIAC SHELL FISH
56. JAPANESSE CURRENCY
57. LARGE TIMBERS BETWEEN STRETCHES OF FENCING OR AT GATEWAYS
58. ME AND YOU

DOWN

1. ROOM USED FOR LARGE DOMESTIC APPLIANCES
2. DECIDUOUS, EVERGREENS, ETC.
3. A GREAT WEIGHT
4. DEPART
5. ALTERNATIVELY
6. BASIS OF ROAD TOPPING
7. WATER MAMMAL
8. MODERN COOKING FUEL
10. DIESEL AND PETROL
11. PIECE OF EQUIPMENT TO HELP WITH LAMB MARKING
13. UNINTENTIONAL MISHAPS
14. BERRIES TO MAKE JAM
18. BURNT WOOD
20. REPRESENTITIVES FOR A PRODUCT
21. CHILDRENS CARD GAME
22. SHORT FOR DOCTOR
24. DONKEY
26. VEGETABLE GARDEN
28. TIP AT THE BACK OF STANLEY COMMON
30. LIGHT ENERGY
33. HEAD OF CORN
37. TOTAL
38. HEAD OF CORN
39. GOVERNMENT DEPARTMENT IN CHARGE OF FINANCE
40. LIST OF TASKS TO DO
42. CLUMP OF GRASS
44. SNAKE
46. UNCOOKED
48. YOUNG SHEEP
50. MODELLING MATERIAL
51. LAST WORD IN THE BIBLE
52. A SHORT SLEEP
53. EARLY MORNING MOISTURE
55. BEING WORN

WOOL PRESS

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IN THIS ISSUE:

The Wool Press is published by the Department of Agriculture. Editors: Mrs M. McLeod & Mrs C. Rowland.

EDITORIAL

Every farmer should have received a Livestock Return Form in the same envelope as the last issue of the Wool Press. I would be grateful if all forms could be returned to me by the middle of June. The sooner we get them all in, the sooner we can distribute the Annual Farming Statistics. If any farmer has not received a form, please can you notify the office and a form will be sent to you.

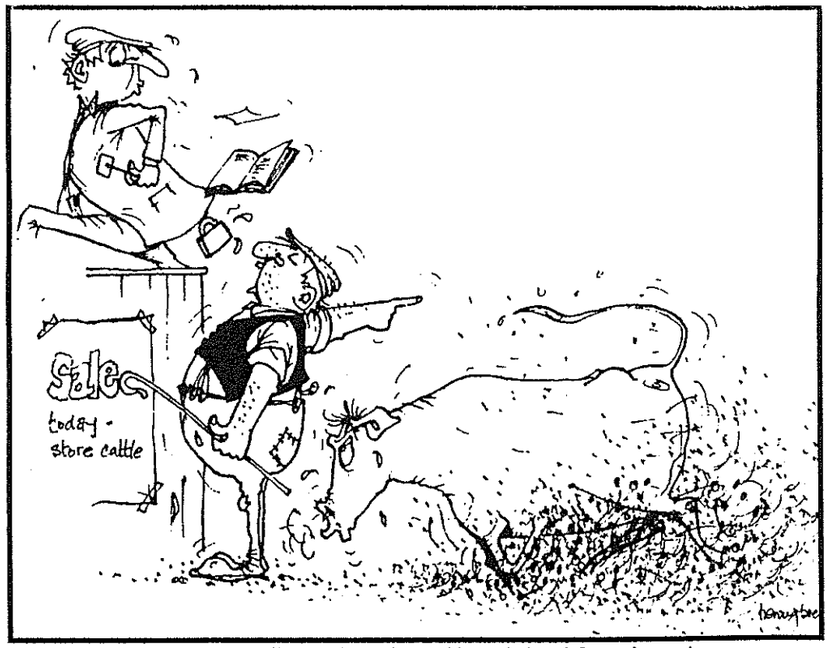
Farmers week is almost upon us again. The department invite all farmers and their wives to their usual drinks in Malvina House Hotel on 23rd June at 7pm. It will be good to see you all again and catch up on the gossip. Farmers Week proposed timetable will be sent to all farmers once all the details have been finalised.

Aidan Kerr and Robin Thompson are off to Canada on a Grasslands Conference in the middle of June, Andrew Coe is also going to a World Health Conference in Paris later this month. I'm sure they will have something to write about in the forth coming Wool Press.

A correction is to be made from the last Wool Press issue No. 90 - Overseas Influence at Tafe. It was printed that Gillian previously looked after 55 ewes imported from Tasmania, and is should of read 550 ewes. Apologies to all those who spotted the mistake.

This month has seen activities at Shallow Harbour with the first "Shelter Belt" being planted. Approximately 2000 Lodgepole Pines (Alaskan Skagway + Skeena River) and 1000 Lodgepole Pine (Skeena River) were prepared and heeled in.

The Department of Agriculture would like to thank Tim Blake of Hill Cove for his generous donation of tree seeds that he collected from around his farm. The seeds will be propagated this spring.



'.....I cannot sell'er at that price Robin, - she's m' favourite.....!

WOOL MARKET REPORT

By Doug Cartridge

As you will notice I am the new author of the monthly Wool Market Report for the Wool Press. Firstly I would like to take this opportunity to publicly thank Hugh Marsden for doing this job over the last, 'I don't know how many years', and personally I wish he was still doing it because **he** loved collecting and collating all the relevant information.

Any way down to business. I thought I would use this first attempt to gauge peoples feelings on the format that they would like the 'Wool Market Report' to take. New author, new ideas!! I had in the past been involved with both a weekly and monthly Wool Report and would like to run past you a format option available for this report.

My personal feeling is that the report should put more emphasis on Falkland Wool and less on the value of wool from other origins, though comparative prices may be of interest. This could be followed by an extract from one of the many market report publications. Below is an example of what we might end up with, for the purposes of this report the figures used are not actual and have been entered only to show how the table might look. ***If I get positive comment on this format I will seek actual information from those involved with the marketing of the wool clip. So please give me a ring and let me know how you would prefer to see this report laid out. (27355 or A/H 22351)***

Example Only

	Falkland Wool				
Description	**This Month**	**last Month**	**Change**	**Year Ago**	**This Month Australia**
20 µ Fleece	**340**	335	**+5**	380	**398**
21 µ " "	**320**	318	**+2**	355	**370**
22 µ " "	**295**	297	**-2**	340	**337**
23 µ " "	**265**	275	**-10**	320	**270**
24 µ " "	**255**	255	**0**	300	**260**
25 µ " "	**250**	248	**+2**	290	**253**
26 µ " "	**245**	250	**-5**	285	**247**
27 µ " "	**240**	235	**+5**	275	**245**
28 µ " "	**235**	235	**0**	270	**242**
29 µ " "	**230**	227	**+3**	260	**242**
30 µ " "	**225**	225	**0**	260	**234**
Bellies	**185**	189	**-4**	200	**200**
Stain Pieces	**155**	140	**+15**	170	**150**
Locks	**130**	120	**+10**	150	**131**
Necks	**200**	220	**-20**	250	**230**
Exchange Rates Aus$ / £	**2.09**	2.07	**+0.02**	1.90	
US$ / £	**1.63**	1.63	**0**	1.52	
NZ$ / £	**2.38**	2.36	**+0.02**	2.21	
DM / £	**2.78**	2.82	**-0.04**	2.31	
Yen / £	**201**	207	**-6**	160	
Australian Stock Pile (Bales)	**1,712,835**	1,797,847	**85,012**	2,788,234	

"Guarded optimism" possible.

Snippet from the *Wool Record*.(May 9 1997)

The Managing director of BWK Australasia, Mr Claus Gyrn, writing for the *Wool Record*, said that "after years of lacklustre wool prices, caused by high stocks throughout the textile pipeline as a result of overstocking combined with a weak retail market, we are now seeing positive trends in the GDP of several major wool consuming countries and improvements in the retail sector".

"The combing industry appears to have forward bookings into the first quarter of the 1997/98 season, and in general the wool industry can look to the upcoming season with guarded optimism."

"It would appear that we are in the early stages of an upturn in prices. Historically, these trends in wool last from twelve to twenty months and should provide some confidence to all sectors."

Mr Gyrn sees better market conditions as providing an opportunity to address "the medium and long term challenges that face the industry."

He sees higher prices and efficiency improvements as necessary to prevent further reductions in the number of producers. Growers are increasingly aware of the need to better manage their risk, and "this will inevitably mean less reliance on the auction spot market and a requirement to be offered other alternatives." These already exist and "the challenge to processor / exporters such as the BWK group is to increase grower awareness and to develop these 'products' to make them more user-friendly."

Mr Gyrn says that BWK has developed a number of joint venture programmes with large producer groups, aimed at providing better links between growers and processors, and to reduce the lead time from farm gate to the processed top. He sees this as a feature in the future marketing of wool.

Other points include the need for more sophisticated computer aided technology in sale rooms; a non-contaminating wool pack ("a matter of the utmost urgency"); and further steps to sale by description, following trials in May; improving on-farm return to guarantee supply into the next century; and effective promotion of wool, especially to the younger generation.

CIS Wool Production.

Snippet from the *Wool Record* (May 2 1997)

An estimate by the International Wool Secretariat indicates that sheep numbers in the CIS fell to around 63 million by January 1, 1997. This was less than half the number of sheep indicated in 1991.

Wool production in 1996 was estimated at 103 m. kg., compared with 224m. kg. in 1991, and a further decline of 18% is expected in 1997. Declines are due to the end of state subsidies, the fall in demand for wool by the domestic industry, and a fall in export demand. Exports which were 98m. kg. in 1995 were estimated at 28m. kg. in 1996, half of these going to China.

THIS MONTH'S CONTRIBUTORS

Robin Thompson	Beef Specialist, DoA.
David Parsons	Legume Agronomist, DoA.
Mandy McLeod	Adviser (Economics) / Training Officer, DoA.
Sean Miller	Sheep Husbandry Officer, DoA, Goose Green.
Andrew Coe	Senior Veterinary Officer, DoA.
Doug Cartridge	Wool Adviser, DoA.
Bob Reid	Director of Agriculture
Colin Horton	Managing Director Falkland LandHoldings Ltd

DISCUSSION GROUPS.

By Robin Thompson

Discussion groups are really informal meetings at which those who attend can 'chew the fat' on one or a number of issues or concerns. Such groups usually have ten or a dozen members who know each other well and feel comfortable to discuss their farm management issues with. Some groups appoint a farmer leader who 'keeps the pot boiling' and the group functioning. In Australia the Department of Agriculture often provides an officer who works with the group to help them fulfil their goals. This may involve organising meetings or speakers as well as providing some technical input. An important principle is that the group takes the direction that it determines rather than being driven by the Department of Agriculture.

The reason for success of such groups is that they are based on the co-operative learning model or the old principle that 'two heads are better than one'. When farmers start to talk and share their problems and decision making a whole host of potential solutions and directions appear which often can save individuals lots of time and money.

The groups I have been involved with do lots of things including meeting monthly on a different farm to have a look at it and discuss the management, having a guest speaker, visiting another district or facility or just discussing a common important management issue. Some groups also do a whole farm comparative economic analysis. This allows costs and returns to be compared between members and the identification of cheaper or more effective management options.

Groups are typically formed within a small locality and include husbands, wives, managers and workers. An example here might be the North Camp, San Carlos or those farmers interested in beef or with a low lambing percentage. Sometimes groups form to tackle a specific problem and then disband. I helped a group in Tasmania develop a programme to eradicate footrot from their farming area. This worked well because the group was owned and driven by the farmers with me as a helper.

If you think the concept has some applicability here or you would like some help then give me a call at Goose Green on 27354.

PHOSPHATE FERTILIZER

by Bob Reid

With the new initiative of introducing legumes into Falkland Islands pastures. Many people would have heard the talk about the need for a cheap and reliable source of Phosphorous.

Why Phosphorous? Well, virtually all legumes have a high demand for Phosphorous and simply do not grow well without it. Some, naturally, require more than others; for example, White Clover like a lot, but most Lupins get by with a very low level in the soil. Our soils in the Falklands are all very deficient in Phosphorous with the exception of the Gentoo colonies, where large quantities of Phosphorous are deposited as 'Guano'.

Phosphate fertiliser comes in a number of forms and probably the best known is Superphosphate ("super"). This was the first chemically manufactured phosphate fertiliser introduced in the 1840's. Present day products usually contain 8-9%P which is soluble in water; it is made by treating ground Rock Phosphate with Sulphuric Acid. Super also contains Calcium Sulphate (Gypsum) as a residue from the reaction between the rock and acid, and this is an excellent source of Sulphur, which is often deficient in grasslands.

Triple Superphosphate (often called 'Double' or concentrated) contains about 20%P soluble in water. It is made by treating Rock Phosphate with Phosphate Acid; it is essentially monocalcium Phosphate and it differs from ordinary Super in containing no Calcium Sulphate. Triple Super is two-and-a half times as concentrated as ordinary Super, and so it must be applied at correspondingly smaller rates. It supplies no Sulphur, apart from this, both Triple and ordinary Super may be used for the same purposes. Both products are usually bought in granular forms that are easier to handle than powders.

Ammonium Phosphates also provide water soluble phosphate (and some Nitrogen). The two soluble Phosphate (often called MAP), which contain 12% N and 26% P, and Diammonium Phosphate (DAP), which contains 21% N and about 23% P. Both are principally used in fertiliser blends and are quite expensive to make. They are not commonly used on grassland.

Basic Slag is a by-product of steel making. Most slags have from 4½-9½% P, and as they are not particularly soluble they must be finely ground. They are still widely used in Europe as they are also a reasonable source of lime and trace elements, and they have a good reputation on grassland.

Finally, there are the Ground Rock Phosphates. These are mined, ground finely for direct application, but even then release the P very slowly as they are not very soluble in water. They do not dissolve on neutral or alkaline soils (usually above pH 6.5).

In areas with acid soil ground Rock Phosphates are ideal for Grassland, but, as they take time to act, they should be applied in autumn or winter so that they are washed into the soil by rain. Where Rock Phosphates can be used satisfactorily they are good fertilizers. If they can be bought much cheaper per unit of P than water-soluble Phosphates on our Falkland peats they would seem to offer a great deal of promise.

GAP STUDENT

The Department of Agriculture is looking for a placement either for one farm or two neighbouring farms to host a GAP Student from October 1997 through to March 1998. Wages to be paid at £70 per week with free board/lodgings.

If anyone would be interested or needs more information, please contact me (Charlene). Tele: 27355

PUPPY REARING

by Andrew Coe

Most farms are from time to time going to have puppies to rear so I thought I'd say a few words about how to get the best results.

Firstly, take good care of the bitch. The normal length of pregnancy is 63 days, give or take a few days and its important to give the bitch a good diet without letting her get too fat. Mutton, dog biscuit, household scraps and milk are a good balanced diet. Give her a clean, dry, draft proof kennel or shed to have her pups in and its a good idea to have a whelping box with a lip a few inches high so that young pups can't fall out and get cold. Once the pups are born they are going to rely solely on their mothers milk for the first 3 weeks of life. Making milk takes up a lot of energy so from now on the bitch should be given just about as much as she'll eat in two or three meals a day of the mutton, dog biscuit, milk and household scraps mixture.

Watch the pups carefully for the first couple of days to make sure that they are all feeding and check to see if any have back dew claws. These can be snipped off with a pair of nail scissors at a couple of days old, which avoids trouble later on. Phone us and we'll tell you what to do.

Once the pups are 3 weeks old you can try them on some supplementary food. Milky porridge, rice pudding, bread and milk anything soft that can easily be lapped up. OK, at first they'll paddle around in it but after a few days you'll find they get the hang of it. Increase the amount and frequency of solid feeding gradually so that by the time they're six weeks old they're getting four small meals a day. Most bitches are pretty fed up with puppies by the time they're six weeks old and if they are well grown and eating plenty of solid food then I would wean them and give the bitch a break. Its probably best to keep them together until they're seven or eight weeks old before you re-home them.

After weaning keep them on four meals a day until 9 or 10 weeks of age, then three meals until about four months, then two meals to nine months or a year and then one meal a day. What do you feed them on during this growing period? Well, dogs eat meat don't they? Yes they do, but they also eat fur and feathers and guts and anything else that goes in to make up an animal. A diet solely of red meat whilst a puppy is growing doesn't have the right calcium/phosphorous balance to produce strong healthy bones and we often hear of young dogs that are going lame or have large knobbly joints, or bent legs, all signs of something called osteodystrophy due to an inadequate diet. Essentially if you mix dog biscuit half and half with chopped mutton then that is more or less a balanced diet especially if you mix some milk and an occasional egg in as well.

What about worms? All puppies are born with roundworms developing inside them. You can start to worm them from 2 to 3 weeks of age, *not with Droncit*, but with Piperazine which you can get from us. We have come a long way since ground glass was used and Piperazine is very safe. Worm them at 2 weeks , 3 weeks, 4 weeks, six weeks and then every two weeks until 12 weeks then monthly to six months and you can be assured of a roundworm free puppy.

If there is anything I've said that you missed or don't understand then do please give the Veterinary Department a call and good luck with those pups.

LEGUMES IN THE FALKLANDS

by David Parsons

There are two main groups of legumes in the Falkland Islands; clovers and lupins. Other legumes include gorse and a few vegetable legumes (beans, peas, etc.)

Lupins - Lupins can be seen in gardens, both in camp and in Stanley. Currently they are not used for animal feed, but they have potential as a nutritious food source, and a means of improving the fertility of pastures.

There are two main types of Lupins currently grown in the Falkland Islands:

- **Tree Lupin** - A woody perennial shrub, usually with yellow flowers, that appear all over the plant.

- **Russell Lupin** - a herbaceous plant, that dies over winter and then re-grows. The flowers occur in a "spike" at the top of the plant, and may be one of a variety of colours.

Clovers - There are two common species of clover found in the Falkland Islands:
- White Clover - This is the clover that everyone recognises, with trifoliate leaves, and white flowers. It's very common around Stanley, and often found in settlement fields.
- Suckling Clover - A plant that is fairly well established around the islands, although not as common as white clover. It has narrower, less rounded leaves than white clover. It can most easily be recognised during the summer and autumn by its yellow flowers.

Why don't legumes grow well in Camp?
There are three main factors that limit the amount of legume growth.

1) The weather
The weather determines what sort of legumes are able to grow in the Falkland Islands, as some are more sensitive to cold weather, frost and wind. Obviously there is more to it than this as white clover is able to grow in some settlement fields, but not further away from the settlement fields, where the weather is still the same.

2) Soil Nutrients
Legumes are also limited by the amount of nutrients available. In particular, legumes must have enough phosphorus (P), or the result will be reduced growth, or death of the plant. In settlement fields, where for many years there have been horses, chickens, etc., the fertility of the soil is high, providing enough phosphorus for legumes to survive.

3) pH
The pH is the acidity or alkalinity of the soil. If the soil is too acid, the plant will be damaged, and less nutrients will be available for the plant to use. In camp, the peaty soils tend to be very acidic, limiting what plants are able to survive..

What about other types of legumes?
It is quite obvious that none of the legumes we have in the Falklands are found to any great extent in camp, besides in settlement fields. However, there are many other sorts of legumes available that may be better adapted to the conditions found here. This is the main purpose of the legume introduction program; to find a legume that can handle the weather, the acidic soil, and the low level of soil phosphorus.

The Legume Survey
We are currently in the process of conducting a survey, to find out where the various legumes are growing, and what soil conditions they are growing in. For all samples, we will be assessing the growth of the legume, how well it is nodulated, the soil pH, and the major soil nutrients.

For those interested in this survey, we would appreciate any samples. Here's how to get your legumes analysed as part of the survey:

- Dig up a block of the legume plus soil 10cm x 10cm x 10cm (4 inches).
- Trying to keep the soil and plant together, place the block in a plastic bag.
- Label on the bag the date and the location of the plant and the surrounding vegetation (e.g. valley green, settlement field, re-seed area etc.)
- Send it in to us at the Department of Agriculture.

With everyone's help, at the end of the survey, we should have developed a picture of what levels of acidity and soil nutrients are limiting legume growth. So get your spade out and start digging!

SEMINARS TO BE HELD AT THE DEPARTMENT OF AGRICULTURE FOR THE FORTH COMING MONTHS

Friday 13 June at 2.30pm	Andrew Coe/Caroline Lamb	"Fisheries Inspection"
Friday 18 July at 2.30pm	David parsons	"Legume Introduction Programme"
Friday 1 August at 2.30pm	Robert Coombe	"Shelter Belt Programme"
Friday 15 August at 2.30pm	Sean Miller	"What are Falkland Islands Sheep Eating?"

WANTED TO BUY

*Michelin 900 x 16 tyres XS or XCL pattern, anything considered including low tread and slightly split casings, on or off rims, wide rims purchased if available. Could part exchange for bargrips if required or will buy.

* Capstan winch drive mechanism for V8 engine.

Contact: Nick Pitaluga, Salavador. Tele: 31193 or fax: 31194

QUALITY ASSURANCE WITH WOOLMARK SUB-BRANDS

Source: Queensland Country Life

The new sub-branding of Merino type wool's under the Woolmark and Woolblendmark are illustrated in labels.

Pure Merino Wool: Supports premium quality wool's of 22 micron and finer, offering softness and next-to-the skin comfort, used widely both in knitwear and woven fabrics, and often associated with more casual styling.

Merino Extra Fine: Endorses those very fine, premium quality wool's of 19.5 micron and finer, principally used in menswear, for fine knitwear, suiting, super soft comfort and natural drape is essential.

Light Wool: In keeping with the trend to lighter fabrics world-wide for men and women.

Wool Cotton: The new blends being developed, such as that to be used in those Levi Strauss jeans.

Total Easy Care: A requirement high on every consumers' wish list, needs to be backed by technical innovation and stringent quality control.

Machine Washable Wool: Well-established for knitwear, improvements for woven textiles being developed.

Cool Wool: Already well-established and successful.

Wool plus Lycra: Less than two years old, already successful.

Each sub-brand builds on the recognised core values of quality assurance and guaranteed wool content of Woolmark and Woolblendmark. The IWS controls where the labels go - labels cannot be used on sub-standard garments.

Meanwhile, generic promotion, based on Pure New Wool, using the Woolmark and Woolblendmark, will be continued, reminding customers that the Woolmark guarantees quality, innovation and natural comfort.

Last year, the IWS supervised the use of Woolmark and Woolblendmark labels on 230 million garments world-wide. The new approach, in the words of IWS chairman Alec Morrison, creates "a Woolmark portfolio brands".

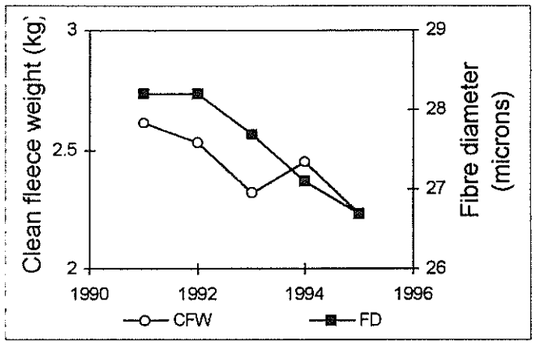
The September launch, in the world's leading fashion and lifestyle magazines, carries the emotive concluding line: "Take comfort in wool". The new campaign will reach one billion people, according to the IWS, and will be backed by retail advertising from individual garment manufacturers.

DON'T GET CAUGHT IN THE MICRON TRAP

by Sean Miller

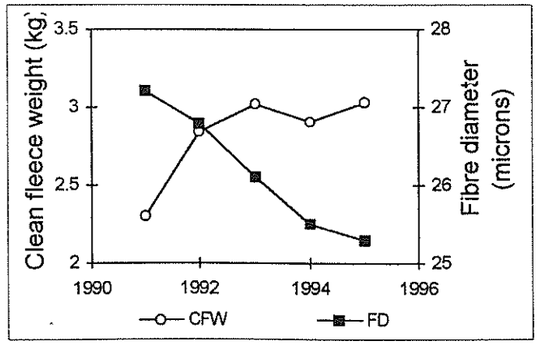
Since the collapse of the wool market in the 1980's there has been a greater emphasis on maximising the returns from wool. A traditional part of this thinking has been to encourage farmers to reduce the fibre diameter (micron) of the flocks' wool. Whilst it is obvious that reducing the micron of the flock produces wool of higher value, it is essential that other wool characteristics are not overlooked during the selection process. In particular, it is important to maintain clean fleece weights, or even better, select breeding sheep with finer wool and heavier fleeces; the two can go together. Two examples that I've come across from the Falkland Islands clearly show what can happen if fibre diameter is selected without considering fleece weights.

Flock 1.



Flock 1 has successfully selected sheep for fine wool, but the weight of individual fleeces has dropped over the same time. As a result, although the value of the wool has been increased relative to its original micron measurement, at current wool prices the fact that the sheep are growing 0.4 kg less has meant that the cash returns are actually less than if the wool was the same diameter and weight as it was 5 years ago.

Flock 2.



By comparison, Flock 2 has been achieving increasing fleece weights at the same time as reducing fibre diameter, thus maximising the benefits of their selection programme. Ignoring seasonal effects, in effect Flock 1 has sacrificed 0.9 kg of wool per head over the last 4 years by not being able to maintain fleece weights. The moral of the story is don't get caught out growing fairy floss - take care when selecting sheep for your flock. A little extra effort fleece weighing hoggets in your Stud Flock, and even ewe hoggets in the main flock, can make all the difference to your pocket at the end of the day.

DRY SHEEP EQUIVALENTS - DSE

by Sean Miller

One of the facts of life is that creatures of different sizes eat different amounts of food. The same is true for both sheep and cattle, with the general rule that the heavier they are, the more they eat. The term ***dry sheep equivalents*** (DSE) is used as a method to take into account the different amounts that different classes of animals eat. In working out the actual stocking rate on a property. It brings stocking rates of different species and classes of animals back to a comparable level. As a rule of thumb, the following table is a guide to the DSE of classes of animals in the Falkland Islands.

Class of animal	# of DSE
Wether	1.0
Ewe and lamb	1.3
Hogget	0.5
Shearling	0.8
Hare	0.1
Steer	8.0
Weaner	5.0
Cow and calf	12.0
Goose	0.15

So when working out the stocking rates in your camps from year to year, don't forget to take into account the amount different classes of animals eat, and see if you can get into the habit of thinking DSE's.

FARMERS WEEK

All farmers/wives are invited to visit the Department of Agriculture on Monday 23rd June at 2.45pm. Items on the agenda are:

New Structure of the Department, and what we are too acheive. Visit to the Wool Laboratory Soil analysis. Poster Presentation.

From 7 - 8 pm in Malvina House Hotel. The department invite all farmers and wives to drinks. See you there!

CATTLE YARDS - PART 1 (Some basic considerations)

by Robin Thompson

Since arriving I have had several opportunities of working with cattle in the Gaucho style corrals common throughout the islands. Although neither man nor beast has been injured on these occasions, the experiences have been stressful and difficult for all concerned. Such stress is mainly caused due to the design of the yard which is based on capturing individual animals with a lasso, tying them to the centre post and then doing the necessary operations. This process is really a constant fight between man and animal and therefore is only attempted on a minimum of occasions as cattle handling is thought of as something to be avoided.

Handling cattle need not be like this if a yard design is adopted that takes advantage of animal behaviour. Such yards do not have to be grand affairs but can be simple structures with some basic characteristics designed to handle the relevant herd size. There are four behavioural characteristics of cattle that must be considered when designing handling facilities or working with cattle. These are vision, herding instincts, noise and smell.

Cattle have almost total panoramic vision, thus it is almost impossible to approach a beast without it knowing. Only a small part of this field of vision can be seen by both eyes, enabling them to clearly focus on the approaching object , so they are easily baulked by shadows, bright spots and dark spots. This is also why cattle usually turn to face the handler. Consequently, designs such as using slatted fences that incorporate strong contrasts of light and dark should be avoided.

Because of the strong herding and following instincts of cattle, groups of animals tend to move together better than individuals. This means that yard areas should always be capable of holding a group of animals. A curved race presents the illusion that animals are disappearing so those behind tend to follow with minimal prodding. Cattle usually move easiest if they can see where the handler wants them to go, so open as many gates as possible to create a wide clear path.

Cattle are very sensitive to noise and may be panicked into unpredictable behaviour by loud and unfamiliar noises. Facilities able to be operated with the minimum of noise, and handlers working quietly and gently will ensure cattle will remain calm. The more cattle see humans, the less wary they will be when approached so it can be beneficial to stand and 'talk' to your cattle in the paddock.

Cattle have a strong sense of smell, particularly for blood, consequently operations necessitating loss of blood should be undertaken after the whole herd has been yarded.

Land slope, prevailing winds, shade, soil characteristics, size and shape of the property are aspects that need to be considered when determining a site for cattle yards. The ideal site is one that is gently north or north east sloping with free draining soils. Sitting on the lee side of a hill will provide shelter but provision for a tree shelter belt should be made. Position of the yards relative to the rest of the property is important so as to minimise the distance animals need to travel to reach the yards. Access to races will greatly enhance ease of movement. Gravel or shingle can be used to surface yards to prevent soil loss and the creation of a lake within the yard. Avoid using abrasive angular material that can result in lameness and foot damage.

Ideally, yards should be centrally located with direct access to as many paddocks as possible. Incorporation of a race system into the farm layout plan will greatly assist animal movement with minimal labour.

As beef becomes a more serious farm enterprise, a greater management input will be required so as to ensure good productivity and animal survival. Some of the management procedures for which yards are required include artificial insemination, calving assistance, calf castration, de-horning, disease testing and treatment, ear-tagging, pregnancy testing, weaning and weighing. Not only will a good set of yards make these activities possible but they will also make them comfortable for both animal and man.

The next article will discuss how yards can be designed to ensure the above operations can be undertaken.

RECIPES

from Mr V K Thompson, Berkshire in U K

BEEF & VEGETABLE SUET CRUST PIE

Ingredients: 1½lb Chuck beef steak; 1 tablespoon seasoned flour; 2 carrots (chopped); 4 ozs cubed swede; 2 sliced onions; 1 crushed clove of garlic; 1 bouquet garni; bay leaf.

For the Suet Crust: 8 ozs self raising flour; 4 ozs shredded suet; pinch dried mixed herbs; cold water to mix. 1 beaten egg or milk to glaze.

Method: Preheat oven at 170 C/325 F/Gas 3. While oven is getting hot, toss meat in seasoned flour until well coated. Put into a thick based pan. Add vegetables, garlic, bay leaf and bouquet garni. Keep stirring and bring to the boil.

Transfer to a casserole or ovenproof dish. If you prefer more juice, add a little more stock. Cover and cook for 1½-2 hours or until meat is tender. Remove dish from the oven and discard the bouquet garni and bay leaf.

To make the Suet Crust: mix the flour, suet and herbs together. Add water to make a firm dough. Roll out on floured board to make a lid for the dish. Glaze and make a hole in the centre of the top for steam to escape. Bake for approx. 30 minutes until the pastry is cooked.

CASH FLOWS (part 1)

by Mandy McLeod

In my mind, one of the most valuable and useful items of book-keeping is the 'cash flow statement'. A poor cash flow situation can seriously impair a businesses development by lost opportunities, just because the finances weren't available at the right time.

It must be remembered that the term 'poor cash flow' doesn't necessarily mean that the business has no money and is therefore doomed to failure. It could just be that the money has been spent at the wrong time or is tied up elsewhere, sometimes unnecessarily.

WHAT IS A CASH FLOW STATEMENT ?

A cash flow statement is a record of past transactions, present achievements and future expectations. From the past you can learn and make changes where necessary. From the present you can see if those changes were at the right level, and if not, make adjustments for the future.

SO WHY HAVE A PROJECTED CASH FLOW ?

Having a constantly projected cash flow will enable you to budget better. If it is ongoing, you would have important annual items such as insurance premiums listed. In that way the cash flow also acts as a reminder of payments due.

It is not only outgoings (payments) that you can keep an eye on, but also the income. If you have a negative (red) cash flow at the same time every year but a highly positive cash flow at other times, maybe you can even up the situation by adjusting the months in which you make various payments, or possibly make a sale that will provide income when it is needed most. I know that if you are reliant purely on when the wool check comes in, there is not a lot of room for flexibility, but a bit of fine tuning in other areas can make a difference.

WHO CAN BENEFIT FROM KEEPING A CASH FLOW STATEMENT?

A cash flow can benefit anyone who wants to know where their money is going? I don't think there are many people who can afford not to care how much they spend! Although I don't have a commercial business, I still have outgoings. OK so I don't produce and sell wool to live, but I provide a service and receive a salary, and so does my partner. We still have to keep an eye on the cash flow situation to make payments or our telephone could be cut off. Worse still, our house could be repossessed if we default on the mortgage payment, etc.

We have a very simple cash flow that I put on the computer at home. It works really well and is projected month by month to the year 2000. It takes me about ½ an hour a month to put the 'actual' figures (replacing the estimated ones) in the spreadsheet with a bank statement / cheque stub reconciliation. I then have a past record of payments and receipts, a present balance, and still have the future projection. The beauty of having it on a computer is that as our needs change, the

entries can be changed and yet we still know roughly when we will be able to afford a new vehicle or a holiday or whatever. A computer is not a necessity of cash flows though. The same method is used for a manual cash flow, it will just take you a bit longer to change the figures if you need to make adjustments.

Yes, the projected cash flow is based on estimations, but the figures become more accurate as you go on because patterns emerge from past entries. Obviously, not everything that is going to happen in your future is known either in business and personal matters, and the cash flow can be affected. However, so long as you are aware of that and always make your projections in the 'worst case scenario' i.e. payments estimated on the high side, receipts on the low side you could be pleasantly surprised at the actual outcome!

FOR WHAT OTHER REASONS MIGHT A PROJECTED CASH FLOW BE NEEDED OR USEFUL?

If you are embarking on a new venture, you can have a cash flow specifically for the receipts and payments of that enterprise. For instance, if you were looking at an alternative income, it would possibly not be wise to go into something that has a poor cash flow at the same time as your wool production business. By having a continuous projected cash flow, you can get a feel of whether the venture is going to make any money at all, and if so, when? It could be immediately and evenly spread (i.e. a home knitting cottage industry), or in the case of some projects, years away (i.e. Agroforestry).

WHO ELSE MIGHT BE INTERESTED IN YOUR CASH FLOW ?

Anyone that you may approach requesting an overdraft, loan or grant. In the case of a loan, the lender would want to know whether you are capable of making the repayments and may be instrumental in deciding the duration of the loan. Even in the application of grant assistance, the provider will want to know if you can afford your share if the grant is only partial to the project.

It feels bad enough having to apply for a loan or overdraft to cover an unexpected expense (i.e. replacement generator because the existing one has died just outside its warranty !), without having to go through the books at short notice and produce a cash flow (particularly in the busy season). Therefore, it makes sense having one constantly on the go that you can provide with the least delay, and it may save you time as well as money.

Some people are already familiar with the preparation of cash flows, although I know that there are some that aren't. With the current state of the wool market and the need in some instances for additional income from an alternative source (either another enterprise, a loan or additional employment), the requirement to have an idea of your cash flow situation, both present and future, is increasing.

WHAT IS A SIMPLEST WAY OF STARTING A PROJECTED CASH FLOW ?

You'll have to wait for next month's WOOL PRESS article called CASH FLOWS (part 2) if you want to know how !

COLLECTING LUPIN SEED

by David Parsons

Here are some tips for those either in camp or in Stanley, who are interested in collecting Lupin seed to plant.

- Lupins produce their seed in pods, which "pop open" when the seed is ready. The trick is to keep an eye on the plants, and when the first pods start to open, get ready to collect.
- If possible, only pick the pods when the weather is dry, and the pods have dried out.
- Pick the pods by cutting with scissors, or simply by pulling them off by hand.
- Place the pods in a paper bag, and write on the bag the type of seed collected and the date of collection.
- Put the bag in a sunny dry place, such as a conservatory, and leave until the pods have released all the seed. To ensure that all the pods release their seed, press the paper bag to crack the pods.
- It should be easy to then remove the empty pods from the bag, leaving only the seed.
- Store the seed in a cool place e.g. the refrigerator, until you are ready to plant them.

WOOL SHEETS TIGHTENED WITH A ONE-MAN GADGET

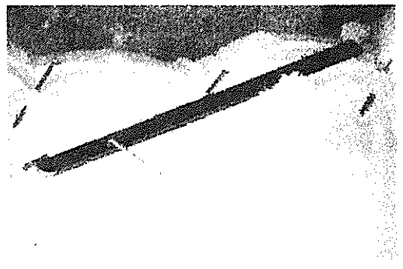
Source: Practical Ideas Spring 1997

How many people do you need to close and sew a wool sheet? The chances are more than one, unless you pack the sheets loose or have Geoff Capes working for you. A Lincolnshire farmer pulls the sides of wool sheets together using a simple tool he made some years ago.

"I found it really difficult to pull the sheets together on my own, and we never seem to have that extra person around at shearing time to help" he said.

The gadget is made from a 2 ft length of 1 inch steel bar with a hook welded on the bottom. The other hook is simply a 6 inch nail. The nail swivels so the sheet edge can pass the end of the lever. When pulled tight the two holes are together which allows you to tack them using some 5 inch nails. Push each nail back through the material and it holds secure. Sewing the sheet is then a simple stress-free job.

This could be a useful addition to the shearing equipment on many farms, and something you can make in about 30 minutes from materials which everyone has to hand in their workshops.



FOR SALE

1 Honda Big Red 250cc 3 Wheeler - in reasonably good condition, except for clutch, which needs attention.

Offers to Shirley Knight - Coast Ridge tele. 42094 or fax: 42084.

AN INTRODUCTION , FALKLAND LANDHOLDINGS MANAGING DIRECTOR - MR COLIN HORTON

Leaving New Zealand on 7 April, I was introduced to the Falklands factor fairly rapidly in Chile. DAP had stopped flying and no one in Punta Arenas at that point of time knew if or when it would fly. However, after a couple of days it was decided to send a one-off trip Punta Arenas - Stanley in a plane packed with two 44 gallon drums of fuel stashed behind the pilots. With the help of a strong tail wind I finally arrived in the Islands on 10 April. So much for the delights of travel to and from the Islands.

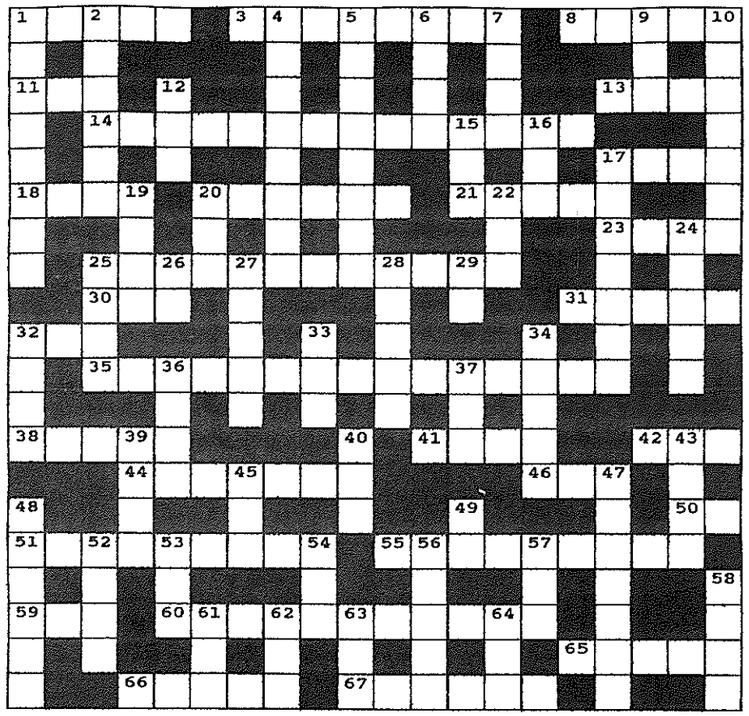
Let me now enlighten you of my history. I was born in Gisborne, New Zealand on a large hill country sheep and cattle station where my father was manager. Where I learnt the basics of station life and it was said that I learnt to ride horses about the same time as I started walking. From here we moved to Lake Okareka near Rotorua where my parents bought a sheep and cattle property. After schooling in Rotorua I went to Massey University in Palmerston North. Besides playing representative rugby I managed to pass a Bachelor of Agricultural Service Degree.

I was recruited to the Ministry of Agriculture and Fisheries as an Agricultural Adviser and was promptly sent to the Region of Southland at the very bottom of the South Island of New Zealand - an area in some ways not too dissimilar to some areas of the Falklands. After a period here I won a scholarship and went back to study for a Masterate of Agricultural Service Degree at Massey University - finally capped in 1978. Being bonded to the Government I then spent time at Ruakura Agricultural Research Station in Hamilton before taking up a position of Regional Animal Husbandry Adviser in Northland - right at the top of New Zealand. This region was at that time undergoing major agricultural development and a state owned enterprise Landcrop (much the same as FLH) was leading the way in this. My role was to actively assist in all aspects of this development including basic research, animal breeding, new ventures to name a few.

In 1985 I was then appointed as one of the National Animal Husbandry Advisers and had to move to Hamilton to take over responsibility for the developing deer and goat industries. Looking for a change I was recruited by an animal export company AEL Corporation Ltd. To run their 30,000 flock of cashmere goats and also provide consultancy advice to their clients in many countries of the world. From 1987 until 1994 I was then the Regional Director (Europe, Middle East) for the company and worked in some 13 countries. Unfortunately long periods of absence from my family resulted in my wife and I going our separate ways, and this remains the same today. During the years 1993/4 there was radical economic reform going on in New Zealand and this saw me leaving the company to set up my own business Agricultural Developments (NZ) Ltd. This company supplies agricultural consultancy in New Zealand and overseas, livestock genetic material, agricultural machinery and merchandise to larger scale agricultural development projects throughout the world. Prior to me coming to the Falklands the company was heavily involved in the agricultural reform programmes in Bulgaria and Turkey. This company continues to operate in association with another business in New Zealand during my absence.

My interests other than a small herd of Red Devon cattle and Booroola Romney sheep on my home property, are golf (erratically played), rugby (watcher class now), tennis (when have time), fishing and gardening. The development of FLH however may limit any great participation in these activities. In the short period of time I've spent here I've enjoyed my time and have found the people very friendly. It is a challenging job that the Directors have asked of me and I hope that it will see FLH assisting in leading agricultural development for all Falklands agriculture.

THE JUNE CROSS WORD



ACROSS

1. GENERALLY SMALL BREED
3. VERTICAL STRUCTURES OF A BUILDING
8. MIXED THEATRICAL PRODUCTION
11. SMALL ROUND MARK
13. BRING TO AN END
14. A MEASURE OF LIVESTOCK STATE(9,5)
17. WAY OUT
18. UNDERSTAND THE WRITTEN WORD
20. ORNAMENTAL DRESS PIN
21. SECTION OF A PLAY
23. WITHOUT ENERGY
25. GEAR BOX
30. POST BOX COLOUR
31. OPPOSITE OF SAVINGS
32. POWER TAKE-OFF SHAFT
35. THE PROCESS OF FOOD ABSORPTION
38. CARD GAME OR FIRE TOOL
41. SHARP BOOT ATTACHMENT
42. DONKEY
44. LEAVE ALONE
46. LARGE MOORLAND ROCK
50. START
51. LARGE SOUTHERN CONTINENT
55. INFLAMATION OF THE LUNGS
59. TWO
60. DISCRIPTION OF BONES OUT OF JOINT
65. TOP OF THE MILK
66. ANIMAL WITH BLACK EYES
67. PROTECTIVE CELL

DOWN

1. ANCESTRAL LINE
2. A HOUSE-PARTY OSCAR
4. STAGE
5. ITEMISED BILLS
6. PELVIC / THIGH JOINTS
7. ALONE
9. ANIMAL DOCTOR
10. SYMPATHETIC UNDERSTANDING
12. PLUS
15. TYPE OF LETTUCE
16. FISH EGGS
17. DISEASE OF POTATOES
19. HAVE COURAGE FOR THE CHALLENGE
20. THROW AWAY
22. TRICK SOMEONE INTO SOMETHING
24. TRACTOR MAKE
25. STEPPED UPON
26. AFTER THE BIRTH OF JESUS
27. CUT RANDOMLY
28. MAIN FALKLAND LIVESTOCK
29. A CASTRATED MALE (CATTLE)
32. A DEVICE FOR MOVING FLUIDS
33. SWINE
34. BEGIN
36. CLOTHING SLANG
37. SMALL IRRITATING DOG NOISE
39. NEW DEVELOPMENT END OF STANLEY
40. PLUS
43. LONG RUNNING STORY
45. ZERO
47. PARK OFFICIALS
48. MALE GOOSE
49. EXIST
52. WHITE PRECIPITATION
53. FISHING TOOL
54. MUCH ABOUT NOTHING - SHAKESPEAR
56. TAKEN HEED OF
57. ADULT MALE HUMAN
58. NOT WILD
61. SMALL HOTEL
62. MEADOW OR PASTURE
63. HAT
64. ON ITS OWN

FARMERS WEEK

Judy Summers has sent the following information regarding the proposed arrangements for Farmers Week. A detailed timetable of events will be sent to members.

During the week we will be meeting the following people:

Sunday 22 June	- Annual General Meeting
Monday 23 June	- Agricultural Department and their reception at Malvina House Hotel at 7 Oclock
Tuesday 24 June	- Mr Peter Marriott and Mr Bill Holdsworth - Cattle Breeders Association - Sheepowners Breeders Association - Lunch given by Peter Marriott and Bill Holdsworth - FIODA Variety Show
Wednesday 25 June	- Chief Executive - (it is hoped that Councillors and the General Manager of FIDC will also attend this meeting) - Cable & Wireless Plc reception
Thursday 26 June	- H.E. The Governor, reception at Government House
Thursday 26 June	- Airstrip Fire Training

We hope to see as many of you who can make it to Stanley for Farmers Week when there is ample opportunity to exchange and share ideas and views to promote a high standard of farming in the Falklands.

The farmers Association welcome new members.

Contact Judy Summers. Tel. 22660 Fax: 22659

Recently overheard from a young shepherd talking about his sheep dog -

"You know, I reckon this dog is definitely the best one I've ever had. It's a pity she doesn't chase sheep"!

0255 - 1724

WOOL PRESS

ISSUE 91 92 JULY 1997 RETAIL PRICE £1.00

IN THIS ISSUE:

PLUS ALL THE REGULAR FEATURES AND MORE!

The Wool Press is published by the Department of Agriculture. Editor: Mrs C. Rowland.

EDITORIAL

Farmers week has been and gone again! It was a pleasure to see so many farmers. Our open afternoon was a great success, there were posters on Guanaco with the emphasis on wool, Progress on Beef - with an up-to-date account of what the Department of Agriculture has achieved so far. Ross Chaloner, Government Land Surveyor, showed how his GPS worked in relation to Farm Boundary fences (see his article called Cadastral Survey of Farm Boundaries), the usual Laboratory workings on soil analysis and wool microns and a display of Shelterbelts with a few samples of trees. Bob Reid held a talk in the library on the Structure of the Department, Andrew Coe showed a film on clinical findings in cows with Bovine Spongiform Encephalopaty (BSE) and of course a good cuppa, chocolate biscuits and a chin wag!.

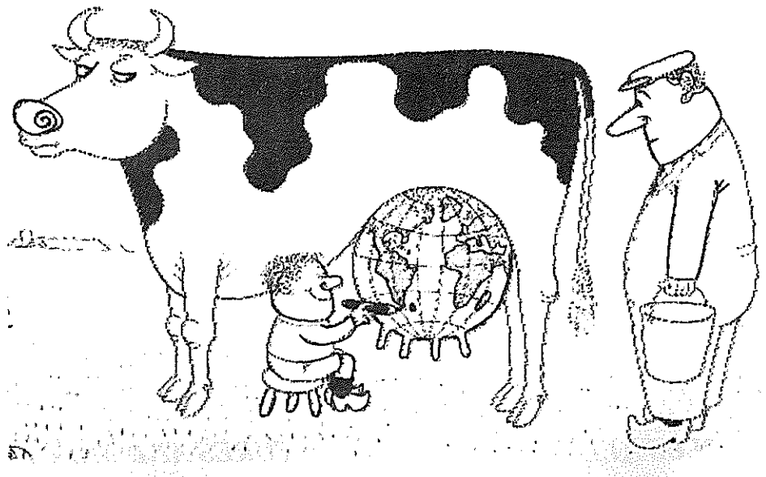
I have had a few requests from farmers who would like to have another look at the BSE video. I am in the process of getting the video copied and would like to hear from anyone who is interested in seeing it.

We also have three new videos - You were made for me (Sheep dog training with a booklet), Growing Soft Fruits and Poultry Matters.

Robin Thompson should be arriving back in the Islands sometime this week, Caroline Lamb is at present in the UK training for the badminton tournament in Jersey, Mandy McLeod is expected back home on the 10th July, Julie Fisher-Smith and Owen are both on leave in the UK although Owen is going to New Zealand, Australia and Tasmania on a study farm programme.

Farming Statistics - I am still waiting for at least 30 forms to be returned, please can you fill them in and return as soon as possible so that I can complete the Annual Statistics.

I have not had a good response for a placement of a GAP student (advertised in the Wool Press No. 91) if you feel that you could benefit from an extra person on your farm full time or shared with a neigbouring farm, please contact me at the earliest opportunity.



"I think the Falklands are down hear somewhere Dad....."

WOOL MARKET REPORT

by Doug Cartridge

Argentine Market

Wool Record May 30 1997

Production in Tierra del Fuego is estimated in the current season at 296,471 kg. The biggest farm lot was of excellent growth and style, Prolana-prepared, and averaged 26.4 microns. Sales were divided as follows:

Type	Micron	Yield	$US/kg greasy Farm gate	Equivalent pence/kg clean (US$1.65/£)
Hogget fleece	23.15	60.94	2.96	294
Bellies & oddments	26.5	60	1.30	131
Ewe and Ram Hogget fleece	25.96	61.92	2.63	257
Ewe, wether and ram fleece	27.9	63.77	2.49	237

The average all-in price at US$2.31 greasy (£1.40) farm-gate, a seasonal record for Tierra del Fuego and considered satisfactory.

Quality is the Cry

Wool record 30 May 1997

The Delegation of Australian and South African woolgrowers last week visited the UK and Italy and the President of the Wool Council of Australia, Mr Thirkell-Johnson, who is leading the group, said that "everywhere we visit, whether it be mills in Asia or Europe, the loudest and most common cry is related to product quality".

In the UK the delegation visited Marks and Spencer and the Parkland group. Both stressed the importance of quality control from farm to consumer, and supported the idea of grower groups directly marketing their wool to major firms.

In Italy several mills stressed the need for better quality management, and this was also a key request when Asian mills were visited the previous week. Contamination was also still a major cost, needing urgent attention. Environmental issues were of increasing importance especially in European countries.

Outlook for wool supplies

Wool Record 23 May 1997

Dr Lionel Ward, executive director of the National council of Wool Selling Brokers, told the economics and statistics committee that on current data there was a prospect of a significant recovery in wool production in Australia over the next two years. Low prices over a prolonged period meant that many growers had lost confidence.

Dr Ward said that lower wool stocks and steady global production meant prices could be expected to rise in the next two years, the recovery could be short-lived because, aggravated by a continuing strong Australian dollar, the ratio of wool to synthetic prices had already risen to 3.4, a level that experience showed was difficult to sustain. Dr Ward said that evidence of stagnant wool production applied around the world. The quantity of wool available for sale from the CIS and major exporting countries in 1997/98 would be about 1,528m. kg greasy, 24.8 % lower than the peak in 1991/92. A further roughly corresponding fall was likely by 2000/01.

Mr Gary Stent forecast that wool production in New Zealand would fall by 2 % to 195,000 tonnes clean next season. Production would continue to decline unless current returns to growers improved.
South Africa expected a 3 % rise in production to 35,200 tonnes clean; depending on prices and the next drought cycle.

AGRICULTURAL MANAGEMENT COMMITTEE

(Bob Reid, standing in for Sharon Halford)

Meeting held May 22, 1997.

The committee discussed:

- The possibility of asking Falkland Islands Government to fund the final phase of the Hydatid Eradication programme. This would involve training a local person in various screening techniques and the inspection of dogs and kennels. They approved the concept and recommended that a paper be put to Exco.

- A letter on the problem of rams in boundary camps was circulated. It was recommended that the issue be more fully discussed at Farmers Week.

- The issue of assistance for farmers with inadequate killing sheds (particularly if the final phase of the Hydatid Eradication campaign were to go ahead) was raised. The committee asked for more details on how many farms have dog proof killing sheds.

- The question was asked, does the department have outside dog kennels or cages that farmers could use when they bring their dogs into Stanley? Answer No. This issue was seen by the committee as being one for private enterprise to cater for.

- With the expected large scale changes to existing vegetation brought about by pasture improvement. Bob Reid recommended to the committee that a system of identifying areas of special scientific interest be investigated. These areas to be protected either by fencing or no change to existing land-use. It was recommended that the subject be discussed in more detail at Farmers week.

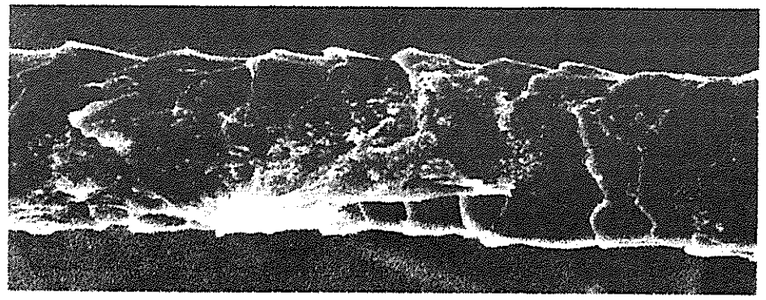
- Erosion was continuing at many sites throughout the Islands and it was suggested that assistance be sought to fence off the worst affected sites. The Department would investigate further and present a paper later in the year.

- Delays to developing houses at Fitzroy for the experimental farm were identified and discussed at length.

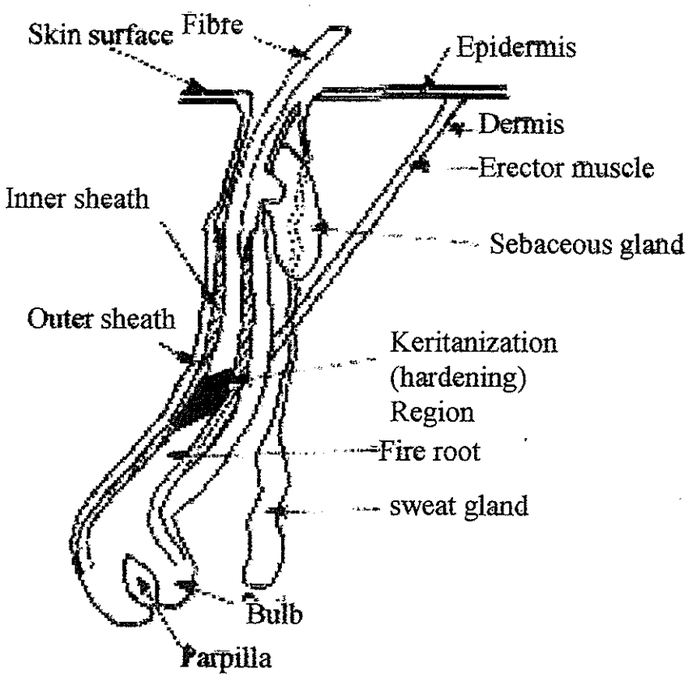
Wool Growth

Slides presented at wool growth seminar

By Doug Cartridge



A greasy wool fibre under Projection microscope



A primary wool follicle

THIS MONTH'S CONTRIBUTORS

Bob Reid	Director of Agriculture, DoA, Goose Green.
Mandy McLeod	Adviser (Economics) / Training Officer, DoA.
Sean Miller	Sheep Husbandry Officer, DoA, Goose Green.
Caroline Lamb	Veterinary Officer, DoA.
Doug Cartridge	Wool Adviser, DoA.
Charlene Rowland	Editor of Wool Press.
Lucy Ellis	Agricultural Assistant
Ross Chalenor	FIG Land Surveyor
Robert Coombe	Agricultural Assistant

SUMMARY OF PORT STEPHENS MINERAL STUDY 1990-92

by Caroline Lamb

This trial was set up by Peter Armitage and Peter McCabe because of poor growth rates in hoggets over their first winter. There was also a problem of brittle bones in the young sheep when they were brought in for shearing.

The trial was quite extensive and ran over three seasons, unfortunately, the treatments used were different between seasons making statistical comparisons difficult. However, some trends were apparent and warrant further investigation.

In1990 and 1991 small groups of hoggets were given one of the following; copper, selenium, both copper and selenium, a mineral drench or nothing (control group).

From comparing the differences in liveweight between the start of the treatment (January) and the final weigh-in (November), there was no benefit from any of the mineral supplements.

In 1992 different groups of hoggets were treated with a worm drench(Panacur), Panacur SC, Vitamin D_3 or both Panacur and Vitamin D_3. One group was left untreated as a control. The Vitamin D_3 was introduced to see if it had any effect on the brittle bones problem.

The results from these trials showed a promising improvement in liveweight gain over the winter, however, because small numbers were used in each group, and there were often a number of animals missing at each measurement time, statistically the differences seen between the control group and the treated ones can not be proved to be due to the treatment alone (i.e. natural variation may be the cause of the differences). It was surprising that Vitamin D_3 alone seemed to improve weight gains, this raises interesting questions and an avenue for further investigation.

One other aspect of the trial was to look at any differences seen between wethers castrated early (December) and those castrated later (January). In January, when the trial started, the early castrated wethers were significantly lighter in weight than the later castrated wethers. However, by November the average weight of both groups were similar. This leads to the assumption that there is compensatory growth seen in earlier castrated wethers such that any early knock-back is overcome.

Sean Miller is now going over the file and looking more closely at some of the blood results. If you wish any further information on the results of the trial, please contact either myself or Sean.

CADASTRAL SURVEY OF FARM BOUNDARIES

by Ross Chaloner Government Land Surveyor

During the past six months strange sightings have been reported around East Falkland. Accounts have come in of a Landrover boldly going where not many have gone before, people sleeping rough in ditches, and a man in a yellow coat holding a big white mushroom wandering around the hills. For you who have not had these visitations yet, I can reveal that all these bizarre phenomena are attributable to Mr Owen Summers and myself.

The ultimate purpose of all these activities is to provide accurate boundary deed plans for all landowners within the Islands.

To achieve this, we firstly have to establish a mutually agreed boundary between neighbouring farms. The present deed plans are of limited use, as in many cases, the lines shown on these do not tie in with the understood physical boundary on the ground. Where Owen's extensive local knowledge cannot overcome this problem, the farmers are contacted to make sure that the fence we intend to survey is the true boundary. We request that any unfenced areas are marked (e.g. new land swaps) and then arrange a suitable time to visit the farm. Once the correct boundary has been identified, it's time for me and my magic mushroom.

It would not be practical to do this work if it was not for the innovation of the Global Positioning System. Normal terrestrial surveying methods would take many years and, as the present maps show, aerial photography techniques cannot detect all the fences. With the GPS a three dimensional position for any point on the ground can be calculated by logging the signals transmitted by a minimum of four satellites simultaneously.

Now to the fun bit. Owen and I, endeavour to follow the chosen fence line. We locate each bend and I take GPS readings at that position. On what appears to be a straight fence I will log a strainer about every 1/2 mile and any blind crests or hollows. Not always an easy job as many fences cross stone runs, swamps and large ditches. Owen has amazed me with the places he can take a Landrover but even he manages to get bogged on a fairly regular basis. In areas of stone runs or impassable ditches, it's back to Shank's pony. I wobble or wade my way across while Owen looks for a way through. Then I follow the fence until I can meet the Landrover again. Sometimes I get the impression I've been deserted and that he's gone back to the farm for tea and cakes. Eventually, I will see the trusted steed bouncing over the hill towards me.

With all this data logged into the hand held computer, it's time to return to PWD Design Office in Stanley. This information is then processed though the base station computer, from which I can obtain 3D co-ordinates to an accuracy of one metre. The data is transferred to a Computer Aided Design program and a drawing of the boundary is produced. This includes the co-ordinates of every bend in each fence. In the event of a dispute or for the purpose of further sub division, the boundary can be re-established on the ground, even if the existing fence has been moved. As

each farm plan is produced, a copy will be sent to the land owner for their approval before inclusion in any legal document.

The outcome of all this endeavour will be the creation of deed plans and an accurate land register. Combining this data with additional surveyed information would enable the production of a Falkland's wide geographical database. For example Owen is looking into the possibility of using these techniques to map vegetation types within the camp.

Finally if you see strange men, doing strange things, in strange places, please don't call in the Tornadoes!

RECIPE

From Mr V Thompson of Reading

CARROT CAKE

Ingredients:

4 ozs Butter
2 eggs
1 teaspoon baking powder
1/2 teaspoon bicarbonate of soda
2 ozs walnuts
4 ozs dark soft brown sugar
4 ozs plain flour
4 ozs grated carrot
4 ozs sultanas

For the filling:

4ozs cream cheese
1 - 2 tablespoons of lemon juice
1 oz icing sugar

Method:

Cream together the butter and sugar until light and fluffy. Beat the eggs lightly. Sieve together the flour, baking powder and bicarbonate of soda. Beat the eggs and flour alternately into the creamed mixture. Fold in the carrots, sultanas and roughly chopped walnuts. Transfer to a greased and lined 7 inch cake tin and bake in an oven preheated to 180°C/350°F gas mark 4 for 45 minutes. Cool on a wire rack and split in half.

Make the filling:

Make the filling by whisking together the cream cheese and icing sugar until light and fluffy. Spread the filling between the two cake halves. Mix the icing sugar with enough lemon juice and water to give a soft spreading consistency and smooth this over the surface of the cake.

TRACE ELEMENTS

by Bob Reid

We hear a lot these days about the importance of trace elements in agriculture, and in some cases these are seen as 'miracle' solutions to a myriad of problems. What are they and how do they affect our pastures and livestock?

The principal trace elements are Iron(Fe), Zinc(Zn), Manganese(Mn), Boron(B), Copper(Cu), Molybdenum(Mo), and Cobalt(Co), and they all play an important role in animal and plant nutrition. The symptoms caused by deficiencies of trace elements depend on many factors and correct diagnosis needs a specialist advisory officer. Incorrect dressings of major nutrients, dry or cold weather, and damage by machinery or chemical sprays may all cause plants to have symptoms that may be mistaken for trace element deficiencies; these factors also modify the appearance of symptoms actually due to the deficiencies.

All the above are important in plants and acute deficiencies often result in some species not growing at all. Some such as Cobalt are probably more important in animals and in this example the plant may have enough in the soil to grow, but there is not enough to satisfy an animals requirements. Often people think that by applying the major fertilizers that sufficient trace elements are supplied but a quick look at the table will illustrate the point.

The Amounts of some Trace Elements in Fertilizers and Manure

Parts per million in dry materials

	B	Mn	Cu	Zn	Co
"Nitro-Chalk"		24	22	15	0
Superphosphate	11	11	44	150	4
Gafsa Rock Phosphate	20	35	60	180	12
Manure	20	410	62	120	6

Spectacular increases in yield have been recorded under farming conditions with trace elements in many countries.Often there have been large interactions with major nutrients, sometimes between two micronutrients. For example in New South Wales ,on an acid soil, subterranean clover virtually failed without molybdenum or lime.

Practically all the maximum yields could be obtained either with a very small amount of lime(250Kg/Ha) plus molybdenum (applied as 140g/Ha of molybdate trioxide) or with 1000Kg/Ha of lime alone.

Effect of Molybdenum and Lime on Yield of Subterranean Clover in New South Wales.

Yields of dry matter, Kg/Ha.

Lime Applied(Kg/Ha)	Without Mo	With Mo
0	439	402
63	678	1205
250	2384	4681
500	2748	4782
1000	4493	4794

The very small dressings of lime were necessary for the crop to respond to Mo at all. The much larger dressings of lime released molybdenum from soil reserves and made trace element application unnecessary.

Which trace elements are likely to be needed in the Falklands? Boron is unlikely to be a problem as the deficiency usually occurs in alkaline areas. Also seaweed contains about 4 parts per million and that would be sufficient for livestock.

Copper deficiency often occurs on acid peat soils and it may be a problem here, but as yet it has not been demonstrated.

Iron is unlikely to be deficient on our soils, but does occur in some grasses when they are grown on recent Gentoo manured ground. A recent trip to Port Edgar illustrated this well,Tex Alazia had sown a grass mixture on the trampled ground and the bent grasses were bright green and actively growing but the cocksfoot plants were yellow and stunted. Fortunately this situation will probably only last for one season.

Manganese deficiency is common on peat soils and the "ill-thrift" of some grasses and legumes is usually associated with this element. Liming the soil is the easiest way to correct the problem.

Molybdenum is almost certainly deficient but as it is needed more by legumes than grasses, it has not become apparent as yet. It is often corrected by innoculating the seed at sowing.

Zinc deficiency is not normally associated with our soil types but it will certainly have to be investigated.

Cobalt has already been diagnosed as a problem with sheep in the south/central part of West Falkland. In this case the animals are treated directly by the use of a cobalt bullet which slowly releases the element into the body.

If you think you have a trace element problem, seek expert help as the "over-correcting" of trace element deficiencies can cause plant and animal toxicity- who would be a farmer, I hear you say!!

CASH FLOWS (part 2)

by Mandy McLeod

Last month we left the subject of cash flows with the following question:

SO, WHAT IS THE SIMPLEST WAY OF STARTING A PROJECTED CASH FLOW ?

If you keep book one (the yellow book) and the annuai summary sheets (The first two pages in the blue book) of the account books recommended by the Department of Agriculture, you are over half way there.

1. Take the summary sheets of the past two years if possible and transfer them onto a cash flow sheet (see fig 1). You will notice that it is more or less the same as the summary sheet except the opposite way around in all aspects. The months are along the top and the headings are down the side. The receipts are before the payments instead of behind, and there are a few extra rows right at the bottom (to be explained later). The headings are exactly the same though.

Fig. 1

MONTH	1	2	3	4	5	
RECEIPTS						
WOOL SALES						
MUTTON SALES						
LIVESTOCK SALES						
CONTRACT WORK						
GRANTS & SUBSIDIES						
OTHER						
TOTAL RECEIPTS	A					
PAYMENTS						
SPARES & REPAIRS						
FUEL & OILS						
FENCING REPAIRS						
BUILDING REPAIRS						
MISCEL. MATERIALS						
VET SERVICES						
SHEARING CHARGES						
SHEARING SUPPLIES						
WOOL MARKETING						
PASSAGES & FREIGHT						
LICENCES & INSURANCE						
POST & TELEPHONE						
WAGES						
BANK CHARGES						
MORTGAGE INTEREST						
LIVESTOCK PURCHASES						
CAPITAL ITEMS						
DRAWINGS / SUNDRIES						
OTHER						
TOTAL PAYMENTS	B					
CASH FLOW	C					
OPENING BALANCE	D	→	→	→	→	→
CLOSING BALANCE	E					

If anyone would like some blank cash flow sheets to work on, please ask me and I will send some (The actual sheets are A3 size so there is plenty of room to enter your figures).

2. For each column (month) you take the payments total 'B' away from the receipts total 'A' and enter the answer in 'C'. You may be able to see a pattern now of payments and receipts over the years (extra wages during shearing, higher sundries and cash drawings around Christmas, wool sales, beef sales). This highlights times when you seem to have money to spare, and times that are looking lean! The pattern tends not only to be in timing but also amounts (roughly).

3. Now take the figures so far for this year from your summary sheets (blue book). From the past two basic cash flows that you have just done, you can see what you might expect to be paying out and what you might receive. You will also know which items were 'one offs' and which are regular. Project these figures into the current cash flow for the rest of the year. Don't forget to include any capital items or other 'one offs' (including assistance receipts) that you are contemplating this year.

4. Now find your bank statement that shows your last balance. If you have several accounts you may need to add them together to give the true 'total' cash flow situation. You may need to do some adjustments to allow for payments or receipts entered for that month in your cash analysis, but have not been cleared through the bank. This amount is entered in box 'D'

5. You then add 'C' to 'D' and enter that total in box 'E' which will be your current cash flow position (closing balance) for that month. The amount in box 'E' is copied to the next month's 'D' (opening balance) box.

6. Each month 'C' and 'D' are constantly added to make 'E' and 'E' transferred to the next column 'D', and so on.

7. When you get to the end of the year, the final closing balance becomes the first opening balance of the new year.

If you are looking into a new enterprise and want to see how long it will be before any investment starts showing a return, then the cash flow's opening balance should be zero. Any investments will be entered under payments.

It is advisable to write all your projections / estimates in pencil. Then, as you enter the actual figures, they can be done in ink as recognition that it is past. You will then know exactly where you are at in this important part of your accounts.

SHEEP PROOF COCKY'S GATES

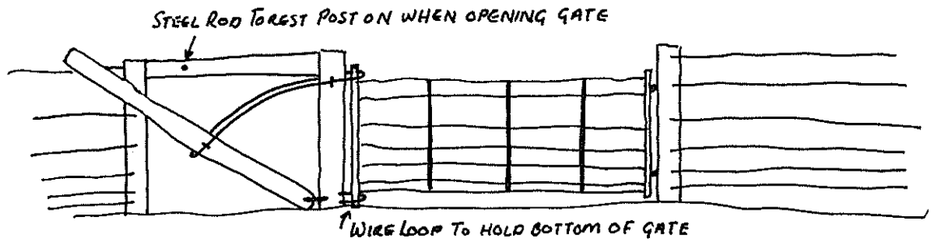
by Sean Miller

Are you sick of sheep rubbing under the lever and opening your wire gates, and have you had enough of fumbling with that !$&@! fiddly bit of wire tying the pipe down to the stob? Here are a couple of tried and true alternatives from Australia that you could try in your next gateway.

The lever gate

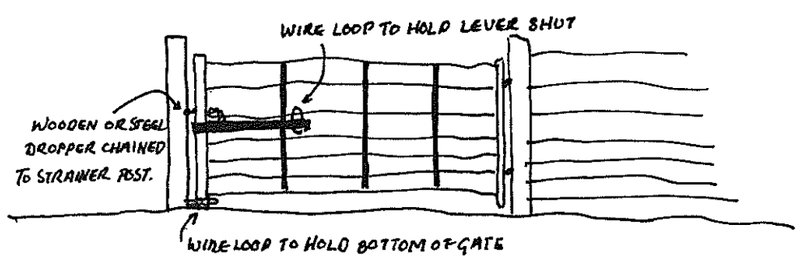
This gate relies on the weight of the pole to pull up the top of the gate and to keep it tight, especially when the wires in the gate stretch over time. When you go to open the gate you just lift the pole onto a peg above it, and walk over to the gate and lift the wire loop off. Shutting the gate is just the opposite. Put the bottom of the gate in the bottom retaining loop the same as you would your ordinary gate, hook the top loop on, then just drop the pole off the peg.

You can use either a wooden pole, bore casing/pipe, or whatever you have around that has a bit of weight in it and that you can hinge to the bottom of the strainer post; the longer the better (8 to 10 feet is ideal). The hinge can be as little as a loop of wire hitched to the bottom of the strainer post, as long as it is secure and lets the pole hinge naturally. The benefit is that if sheep do rub the pole, its weight stops it from rising far enough to let the top wire loop off of the gate. And if the pole is not heavy enough, you can just add a bit more weight to the free end.



The Aussie Cocky's gate

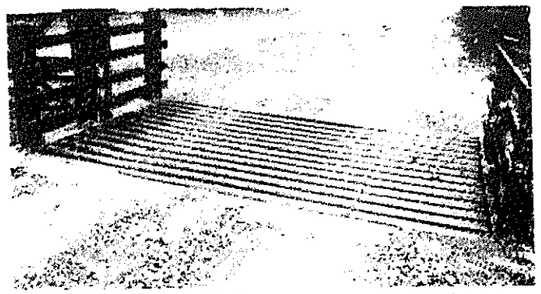
This gate is simpler than the lever gate, does the same job as regular gates, but doesn't keep pulling the top up tight as the wires stretch like the lever gate does. It just involves wiring or chaining a steel dropper to the strainer post, hooking the end of the dropper behind the end stob on the gate frame, and levering it tight by pulling the dropper back in the direction of the gateway. The end of the dropper is then just hooked up on the gate with a sliding wire loop.



CATTLE GRID HAS GIRDER BASE AND IS EASY TO INSTALL

Source: Practical Farm Ideas

There's nothing like a large lorry to test the building quality of a cattle grid. Made from 3" tubes, the frame rests on four lengths of 16 x 6 inch steel.



12ft grid is built with three removeable sections.

The grid measures a total 12' wide and 7' 8" long and has three separate sections which rest on top of the girders. The centre section has a width of 6' and each side section 3'.

The grid was made this way so the main weight of traffic is supported by a girder. The girders are carefully set on concrete and squared up. The three sections just rest on the top.

Each grid section has to be made true. Lengths are tack welded into position, and care to be taken when welding to prevent distortion. The tubes are welded into 3" angle and each are spaced 3.75" apart. Welding is restricted to the end of the tube.

WHERE IS ALL THAT DEPARTMENT OF AGRICULTURE (GTU/ARC) RESEARCH?

By Sean Miller

The criticism I've heard most of the Department of Agriculture since I arrived in the Falklands is that very few people know what research the Department, under it's many names, has done in the past, and what has happened to all of that information. In particular, what has come out of it all for the farmers?

Over the last few weeks I've been lucky enough to read up on most of the sheep work that has been done up until now, and over the next few issues of the Wool Press I shall put together some articles for you detailing what the Department has done, and what it means for you.

Amongst the topics that have been investigated over the past 20 years are; the growth pattern of young sheep, sheep eating habits, tracking down and attempting to find solutions to mineral deficiencies, parasite control (i.e. worms), and ewe nutrition and lamb survival. Most of this work has been done out and about on many of your own farms and is therefore of particular interest. I'll start off this month with a brief summary of the sheep worm research.

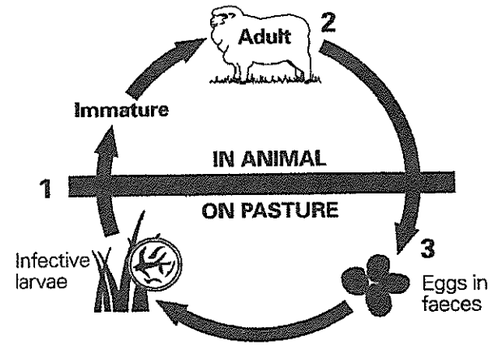
So read on, and I hope we can put you in the picture.

WAIST DEEP IN WORMS

One of the biggest diseases of sheep world-wide is internal parasites (worms). Sheep worms cause reductions in weight gain and wool production by reducing the efficiency with which feed is digested and absorbed, and placing extra demands on the sheep's immune system. The biggest effects occur in young sheep. Adult sheep develop some immunity to worms and suffer less from their effects.

Conditions in the Falkland Islands favour the life-cycle of these worms, and it is likely that they have similar impacts on sheep production here. For this reason, experiments were conducted between 1983 and 1989 with hoggets at Port Howard and Fitzroy to examine the extent of the problem, and to evaluate ways to minimise their effects on production.

The worm cycle



Sheep worms grow and reproduce in the intestines of the sheep, and produce eggs that pass out with the faeces and onto the pasture. These eggs are very resilient, and the larvae that hatch can survive high and low temperatures as long as there is moisture on the grass. During winter, the larvae survive very well, but during summer the drying winds can kill the larvae. When a pasture is free from eggs and larvae it is called *clean*, and can be produced by the effects of drying the pasture in summer, or from grazing with adult sheep.

Adult sheep develop an immunity to worms and they can be used to *clean* a pasture. The adult sheep eat the infected pasture and pick up the larvae, which then die as they are attacked by the adult sheep's immune system. No new eggs are deposited on the pasture by these immune sheep and the pasture becomes *clean*. These *clean* pastures should be saved for hoggets, as young sheep are not immune to worms. These pastures should also be used for lambing ewes, as ewes also lose their immunity to the worms because of the stress associated with late pregnancy, lambing, and early lactation. These sheep benefit most from drenching.

Camp

Between weaning and first shearing, sheep treated with an anthelmintic (drench) were compared with those that were not, and grazed on worm-infected and clean pastures. Regular weighing showed that there were no differences in body weight between treated and untreated sheep during autumn. During winter, the drenched sheep lost less weight than undrenched sheep, and during spring and the following summer, drenched sheep grew faster and grew more wool.

By comparing weight loss between the groups, it was concluded that only 20% of the weight that was lost by undrenched sheep during winter was due to the effects of worms. This loss doubled (40%) when the hoggs were grazed on worm infected pastures. What does this mean? At present the cost of the drench may not be covered by the extra wool shorn from the sheep during the year. But since more of the weight that was lost in the second year was the result of worms (40% compared to 20%), it suggests

that using adult wethers to graze a camp the year before hoggets are put in, may reduce the rate of worm-infection in the hoggets, and minimise poor health and low production.

Reseeds

As reseeds became established it was thought that by improving the nutrition of hoggs, they may gain more from drenching than would camp-fed sheep. In several experiments, drenched and undrenched sheep fed on reseeds were compared with undrenched camp-fed sheep. The results suggest that more wool can be grown by drenched sheep.

Today's recommendations

The experiments suggest that about 0.2 kg of extra wool can be gained by maintaining hoggets free from worms at times during the year. The extra liveweight benefit enjoyed by treated sheep may also improve survival. So does this justify the cost? That is a decision only you can make. As a guide, a worm control program should involve drenching ewes just before lambing (to provide protection to the ewe and new-born lamb), and based on the observations of the camp-fed experiment, drenching hoggets prior to winter. The hoggs then need to be turned out on to a pasture that has not been grazed during the summer, or has been grazed by wethers for at least the last year. This allows the drench to take effect and the worm-free hoggets to benefit from the *clean* pasture. If the benefits do not justify the cost of these drenches in your situation, there are still benefits to be gained by placing undrenched hoggets on *clean* pastures after weaning and at the start of winter. These benefits are free.

Do I need to drench my sheep?

If you do regularly use drenches you should first check to see whether the sheep really need it. The simplest way to determine if your sheep have enough worms to warrant drenching is to do a worm egg count. This can be done at the lab in Stanley, and just involves collecting several fresh faecal pellets from half a dozen sheep, and bringing them in for us to examine under the microscope. The number of eggs present tell you whether there are enough worms to cause a drop in production.

New drench technology

Giving sheep an oral drench kills the worms that are present in the sheep's stomach. A single drench only lasts for a day or two. It has no long lasting effect. Therefore, if a sheep is put back on a pasture that is infected with worm eggs, the sheep is re-infected straight away, and the benefit of the drench is gone. Thus, to gain a lasting benefit from the drench it is necessary to put drenched sheep onto a worm-free pasture. For young sheep and lambing ewes, this means putting them on a pasture that was previously ungrazed for several months over summer, or previously grazed by wethers. This is what we call a *clean* pasture.

A new development in drench technology may make worm control easier and more effective. Called a *controlled release drench,* it involves drenching sheep with a capsule that continuously releases a measured dose of drench to the sheep for 100 days. Also, an injectable drench is now available that also delivers a steady dose over an extended period of time. For areas like the Falklands where it is difficult to put sheep onto *clean* pastures, and sheep are only gathered a couple of times a year, these types of drenches may be very useful. In the near future we hope to test these new drenches in the Falklands, and see if they make the difference between sheep just surviving and sheep doing well.

SHALLOW HARBOUR SHELTEERBELT

By Robert Coombe.

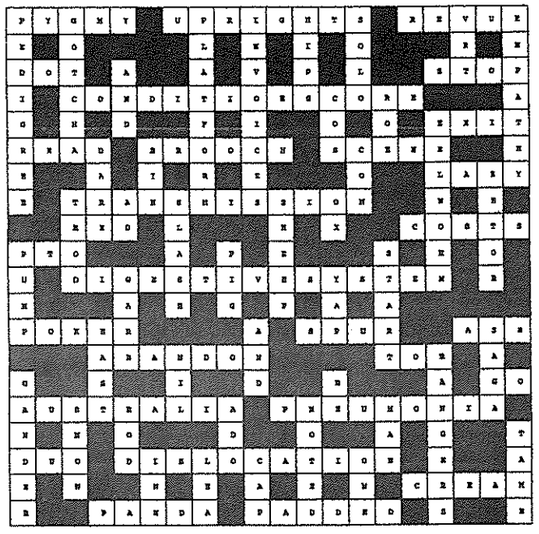
Gene Berntsen (Technical Assistant) and myself (Technical/Forestry Assistant), left Stanley on the 5 May bound for Shallow Harbour to establish the first shelterbelt following the plan of Dr Alan Low.

The site was marked out by Aidan Kerr and myself on a previous visit. The site was situated on the reseeded pasture about 500m SW of Shallow Harbour house. Mr & Mrs Marsh felt that the shelter at this site would provide greater benefit to their sheep than if the belt was located elsewhere. The belt's axis is N.N.W - S.S.E. The site has a NE-E aspect with shelter from a long moderate slope to the W, SW and S. Topsoil is 0.5 m -1.0 m depth and no iron pan was found during bore tests. A layer of rock was found at a depth of 1m at the N end of the site. The site receives moisture from the long slope but is not likely to become waterlogged. This was the ideal place to establish our first shelterbelt and a full report can be obtained from the Forestry Technician at the Department of Agriculture.

During our 9 days at Shallow Harbour we planted 2000 Lodgepole Pine. 1000 each of Alaskan Skagway and Skeena River. We planted between 500 - 600 trees per day and tried different techniques on planting to see which was easiest and quickest. Each of the twenty rows consisted of 100 trees at a parting of 1.5m. The first 10 rows on the windward side were Alaskan Skagway and the remaining ten rows on the leeward side were Skeena river. The reason Alaskan Skagway was planted on the windward side was because they have proved to be more tolerant to the winds here than any other tree planted, the first couple of rows are expected to be sacrificial but only to provide shelter for the other trees. Fertiliser was applied at a rate of 30kg of p/ha, a total of 144kg of N° 3 turf fertiliser was applied to an area of 0.45 ha. As the belt was established in the re-seed an electric 5 wire fence was erected to give protection against livestock and a wire gate was positioned at the Northeast corner for easy access if needed, a 180m 3 wire paraweb fence was placed on the windward and south-eastern side to give extra shelter from harsh winds.

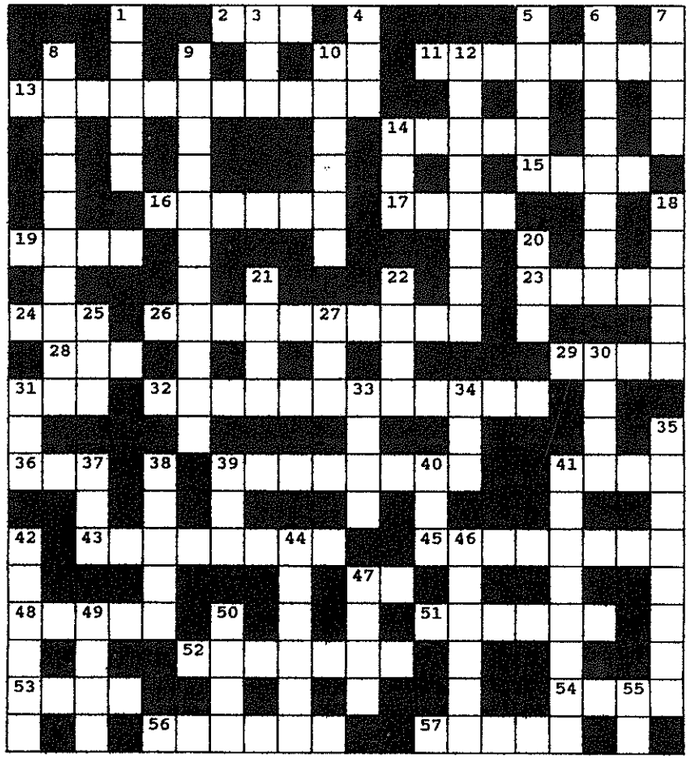
Gene and I would like to take this opportunity to thank Mr & Mrs Marsh for their kindest hospitality and excellent cooking whilst we stayed at Shallow Harbour and we look forward to seeing them again in the spring.

THE JUNE SOLUTION



10 GREEN BOTTLES HANGING ON A FENCE...

If you have a broken insulator on an electric fence and don't have a replacement at hand, slip an empty bottle over the stake top and attach the wire to this instead. You could also use this trick to add extra lengths of fence in a hurry. Source: Practical Farm Ideas



JULY CROSS WORD

ACROSS

2. QUEENS BIRTHDAY HONOUR
10. MYSELF
11. FUNGAL SKIN INFECTION
13. WHERE SHEARERS TAKE THE SHEEP FROM (8,3)
14. LARGE METRIC WEIGHT MEASUREMENT
15. SOUND LEVEL
16. NO LONGER WHOLE
17. WINTER FEED CEREAL CROP
19. A QUICK DRINK FROM A BOTTLE
23. MAMMARY AREA
24. PERSONAL CREDIT CARD NUMBER
26. CLEANSING BY GASSES
28. METRIC NUMBER
29. FEMALE PIGS
31. GOLF STARTING PEG
32. NORTHERN GRASS TYPE?(9,3)
36. SPEECH PROHIBITOR
39. AN OCCASIONAL PROBLEM OF LAMBING
41. CLOCK FRONT
43. COPPER DEFICIENCY REACTION
45. WATER PURIFIER
47. ARTIFICIAL INSEMINATION
48. COUNTED AT ELECTIONS
51. MARKING CHALK
52. ANOTHER ITCHY SKIN DISEASE
53. DISCARDED
54. LOCATE
56. TRIFLE TIPPLE
57. FIRE AT

DOWN

1. COLOURED SHEEP BREED
3. PEAT AREA
4. FEMALE SWAN
5. EARLY,SHORT-LIVED, WINTER VISITOR
6. MAGNETIC COIL OF WIRE
7. FOG AND SMOKE MIXTURE
8. PIG BREED
9. LEADS RUN FROM THIS TO THE SPARK PLUGS
10. FINE WOOL SHEEP
12. STARTING KEY
14. A DUO
18. AN INFECTIVE MICRO-ORGANISM
20. SOIL AND WATER MIXTURE
21. DAIRY PRODUCT
22. JETTY
25. BEFORE MARRIAGE
27. FIRE REMAINS
30. MALLOW POD
31. EAR MARKER
33. GULF COUNTRY
34. AMOUNT TO BE PAID
35. CATTLE BREED
37. COOKING FUEL
38. TRANSMISSION RANGE
39. LICENCED DRINKING ESTABLISHMENT
40. A POUCH-LIKE STRUCTURE
41. MECHANICAL RAISING DEVICE
42. MACHINE OR INSTRUMENT
44. OPPOSITE STANLEY
46. WELL BEING
47. LENGTH BY BREATH
49. EXAM
50. DULL CONTINUOUS PAIN
55. DEFINATELY NOT

A DAY IN THE LIFE OF AN AGRICULTURAL ASSISTANT

by Lucy Ellis

A cup of tea is always a good way to kick off the day-it sets you up for whatever weird and wonderfull jobs lie ahead! After checking up on everyone to see what's what and who's going where, it's time to knuckle down to business; quite often the three of us Ag. Asst's - John, Gene and myself, squeeze into our "cubby-hole" and spend the day sorting through Aidans' grass samples, the end results of which show the digestibility,protein analysis and nutritional value of the vegetation eaten by sheep.

Occasionally,Andrew or Caroline will edge up and give us the glad tidings that another wild cat has met its' end and needs burying, strangely enough, there's never a stampede for the door on hearing this news, more often it's "Gene, it's your turn" or " I can't do it, I've got to go and fill the tea-urn".

Being stand-in N.S.F. manager in Gillians' absence means a few trips to Saladero, which is a nice break from Stanley, and lets me see what's going on that I've only read about in reports. The last such trip was to sort through all the ewes and rams and split them into smaller groups for tupping-Doug, Owen and myself being the hit-squad. This was no ordinary ram-putting-out-job, this was TECHNICAL; numbers, weights, teeth, lambed or not-lambed, more numbers, age and thorough M.O.T. on every sheep in sight, in the end Doug and his lists bamboozled everyone, including himself, but a fag and a hot-tot soon sorted him out.

The life of an Ag. Asst. is varied and interesting, most of the time, there are also those days when you think you'd have been wiser to not get out of bed; how many circuits did we do round the Common after those horses, John? Eartags? what eartags? More of that next time.

SEMINARS TO BE HELD AT THEDEPARTMENT OF AGRICULTURE

18 July at 2.30pm	David Parsons	"Fisheries Inspection"
1st August at 2.30pm	Robert Coombe	"Shelter Belt Programme"
15 August at 2.30pm	Sean Miller	"What are Falkland Is. Sheep Eating?"

All are welcome

BREEDING TABLES

A few months ago, I came across a Breeding Table which I thought would be of interest.

Example: ***If a Bitch was mated on June 4 then her pups would be born approximately 63 days later on August 5.***

Time of Service		Mares 340 days		Cows 283 days		Ewes 150 days		Sows 112 days		Bitches 63 days	
January	1	December	6	October	10	May	30	April	22	March	4
	8		13		17	June	6		29		11
	15		20		24		13	May	6		18
	22		27		31		20		13		25
	29	January	3	November	7		27		20	April	1
February	5		10		14	July	4		27		8
	12		17		21		11	June	3		15
	19		24		28		18		10		22
	26		31	December	5		25		17		29
March	5	February	7		12	August	1		24	May	6
	12		14		19		8	July	1		13
	19		21		26		15		8		20
	26		28	January	2		22		15		27
April	2	March	7		9		29		22	June	3
	9		14		16	September	5		29		10
	16		21		23		12	August	5		17
	23		28		30		19		12		24
	30	April	4	February	6		26		19	July	1
May	7		11		13	October	3		26		8
	14		18		20		10	September	2		15
	21		25		27		17		9		22
	28	May	2	March	6		24		16		29
June	4		9		13		31		23	August	5
	11		16		20	November	7		30		12
	18		23		27		14	October	7		19
	25		30	April	3		21		14		26
July	2	June	6		10		28		21	September	2
	9		13		17	December	5		28		9
	16		20		24		12	November	4		16
	23		27	May	1		19		11		23
	30	July	4		8		26		18		30
August	6		11		15	January	2		25	October	7
	13		18		22		9	December	2		14
	20		25		29		16		9		21
	27	August	1	June	5		23		16		28
September	3		8		12		30		23	November	4
	10		15		19	February	6		30		11
	17		22		26		13	January	6		18
	24		29	July	3		20		13		25
October	1	September	5		10		27		20	December	2
	8		12		17	March	6		27		9
	15		19		24		13	February	3		16
	22		26		31		20		10		23
	29	October	3	August	7		27		17		30
November	5		10		14	April	3		24	January	6
	12		17		21		10	March	3		13
	19		24		28		17		10		20
	26		31	September	4		24		17		27
December	3	November	7		11	May	1		24	February	3
	10		14		18		8		31		10
	17		21		25		15	April	7		17
	24		28	October	2		22		14		24
	31	December	5		9		29		21	March	3

WOOL PRESS

ISSUE 93 August 1997 RETAIL PRICE £1.00

IN THIS ISSUE:

PLUS ALL THE REGULAR FEATURES AND MORE!

The Wool Press is published by the Department of Agriculture. Editor: Mrs Charlene Rowland.

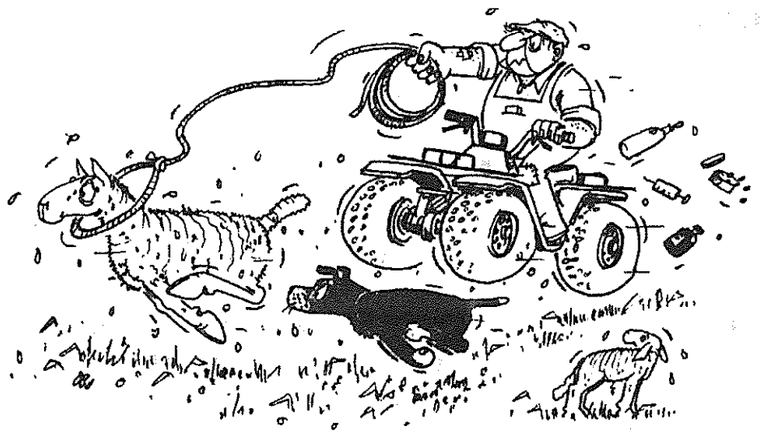
EDITORIAL

I have this month enclosed a Farm Profile form. I would like to see as many as possible returned with some good and interesting stories to be printed in the Wool Press. As you are aware the Wool Press is distributed all over the world and we at the Department thought it would be a good idea to try to let the rest of the world get some inside knowledge of farming in the Falklands. I also would like a photograph to be included, something that spells out your farm, i.e. settlement, a favourite animal or family photo. Our first month's contribution will be Salavador Farm.

Staff at the Department is slowly getting back up to strength again. Mandy, Aidan, Robin and Caroline are all back to work. Julie Fisher-Smith and Diana Roberts are due back in the next week. Andrew and Bob will be away later on in the month. Zoe Luxton is standing in for Maggie Barkman as she is on her way to London Veterinary School for some experience in Veterinary Nursing. We also say farewell to Isabel Short who has been working in the lab for the past 2 years, who`s main responsiblities were washing all the wool and sorting it for Diana and Gordon before it was tested.

Congratulation to Ron and Fiona at Spring Point Farm on the birth of their baby boy. Also, we would like to welcome Kenneth and Josie McKay and family who have become our newest farmers at Sheffield Farm.

I would like to do just one more plea to any farmer who would like to employ either a full time or shared GAP student. We have two arriving in October, one of which we have found a farm host. If you think you could do with an extra pair of hands either full time or shared, please give me a call and I can give you more details.



'....I don't remember Clint Eastwood ever havin' this problem!!'

THIS MONTH'S CONTRIBUTORS

Bob Reid	Director of Agriculture, DoA.
Sean Miller	Sheep Husbandry Officer, DoA, Goose Green.
Andew Coe	Snr. Veterinary Officer, DoA.
Doug Cartridge	Wool Adviser, DoA.
Charlene Rowland	Snr. Agricultural Assistant, DoA.
Aidan Kerr	Snr. Scientist, DoA
Robin Thompson	Beef Specialist, DoA, Goose Green.
Mandy McLeod	Farm Management/Training Officer, DoA.
David Parsons	Legume Agronomist, DoA.

WOOL MARKET REPORT

By Doug Cartridge

Following a positive response from farmers towards a new format for the 'Wool Market Report' I include below the first edition. Prices used were supplied as indicative net prices for that type at the end of the month. Australian price quoted is taken as the WI Market Indicator published for those types, converted to pence per kilo using the exchange rate on the day.

	Falkland Wool			
Description	**This Month**	**Last Month**	**Change**	**This Month Australia**
24 µ `` ``	**290**	288	**2**	262
25 µ `` ``	**275**	270	**5**	255
26 µ `` ``	**268**	265	**3**	250
27 µ `` ``	**260**	256	**4**	241
28 µ `` ``	**254**	254	**0**	238
29 µ `` ``	**248**	248	**0**	235
30 µ `` ``	**240**	240	**0**	225

	This Month	**Last Month**	**Change**	**Year Ago**
Exchange Rates Aus$ / £	**2.28**	2.21	**0.07**	1.97
US$ / £	**1.68**	1.66	**0.02**	1.56
NZ$ / £	**2.57**	2.42	**0.15**	2.25
DM / £	**3.06**	2.87	**0.19**	2.30
Yen / £	**194**	189	**5**	169

"Industry price forecasts diverge"
Wool Record 25/7/97

Under this heading the IWS (*IWS Monthly Market Briefing) say* that "price forecasts for the 1997/98 season vary from a cautious recovery to very bullish. "Wool International and ABARE are forecasting an average EMI of 640 and 650 cents a kg clean respectively. WI expects prices to soften from September to December. In addition a perceived ongoing weakness at retail in major overseas markets, slowing growth in China and a high wool/synthetic price ratio are expected to dampen prices. These forecasts compare with an average of 615 cents and a closing price of 706 cents for 1996/97.

Uruguayan farmers quote high
Wool Record 18/7/97

Combers in Uruguay need wool but the few farmers still holding stocks are asking prices considered too high, according to our South American correspondent. Average prices for Uruguayan merino tops are said to be around US$6.40 a kg f.o.b.

High slaughter rates of Corriedales mean that a good amount of skin wool is on offer at prices ranging from US$ 1.40 up to 1.60 a kg. Sheep numbers indicate a Uruguayan total of 18.4 million, about 6% lower than a year ago. Early clip estimates indicate a figure of 75 million kg greasy for the 1997/98 clip, compared with 81.8 million kg greasy in the 1996/97 season.

In addition to the high level of 2.25 million sheep slaughtered, 200,000 sheep have been exported live, mostly to Southern Brazil, in recent months.

INTERNATIONAL GRASSLANDS CONGRESS AND CHILE - IMPLICATIONS FOR FALKLAND ISLANDS

by Robin Thompson

During June 1997 I was fortunate in being able to attend the eighteenth International Grasslands Congress in Canada. This was made possible through funding from the Meat Research Corporation in Australia. Such support was received in return for presenting results from a three year study on grazing management conducted prior to coming to the Falklands. I travelled to Canada via Chile and thus used this opportunity to visit contacts in that country with the aim of looking for opportunities of mutual benefit to Chile and the Falklands. The following is a summary of the opportunities and themes that could be followed up in the Falklands.

Chile

- Reactive rock phosphate reserves are being mined in Northern Chile. This may be a future source for the Falklands so further details and samples have been requested.

- The farming environment of southern Chile is very similar to that of the Falklands. The major difference is higher soil pH in Chile and significantly more advanced animal production. A visit to this region of Chile by Falkland farmers would be a good learning and inspirational experience.

- Standard Wool operate a scouring and top making plant in Punta Arenas. Discussions with management suggest they would be a potential buyer of Falkland wool. Opportunities may exist for joint venture wool processing in order to improve returns to Falkland farmers.

- Discussions with the University of Magellanes revealed an enthusiastic group of staff and student agriculturists with interests in many of the research and development areas being undertaken in the Falklands. There may be an opportunity for students to be involved in projects here and to use the results in their studies.

- Researchers at the Instituto De Investigaciones Agropecuarias are interested in the species evaluation and introduction program in the Falklands and would be keen to have some involvement.

- Several officers of the Instituto De Investigaciones Agropecuarias are competent artificial insemination technicians and would be available to assist in our cattle program.

- Chile is a source of agricultural requisites and thus should not be overlooked when ordering and purchasing for the Falklands.

Grasslands Congress

- Discussions with various attendees from Alaska and continental Canada suggest that Kentucky Bluegrass and Alsyke Clover be included in species evaluations for the Falklands.

- A triple disc direct drill is available from the U.S. at a much cheaper price than an equivalent New Zealand product.

- I discussed our beef program with Australian and New Zealand colleagues who concur with the general aim and philosophy. We may be able to have some involvement with an Australian program evaluating various breeds with the aim of producing across breed breeding values. If this is possible it will enable us to source some excellent genetics at good prices.

- Management of remnant grasslands is a major undertaking in Canada. This usually involves integrating conservation and farming. Since the vegetation of the Falklands may be changed significantly in the near future conservation areas need to be identified along with the definition of a management plan.

- Work in the U.S. rangelands (250 mm annual rainfall, 120 growing days) show that considerable gains (around 20%) in farm productivity can be achieved by integrating the grazing of sheep and cattle. This should be evaluated here because if successful it would be a short term means of increasing farm profitability without necessitating major capital inputs.

- Integrated pest management is again receiving considerable attention because of the need to minimise chemical use due to increasing costs, development of resistance and unacceptability to the community. As pastures on the Falklands change and the production system becomes more intensive, plant and animal pests may become more significant. We need to be conscious of this and plan to manage pests using a variety of means rather than reaching for the quick fix chemical.

- Recent work in Canada has shown that winter survival and subsequent spring yields of cocksfoot is determined by the amount of carbohydrate accumulated by the plant in autumn. Deferred or minimal autumn grazing results in maximum carbohydrate accumulation. This may or may not be important here because in northern continental environments plant growth stops for about 200 days, where as here growth through winter is likely to be stop - start. However when evaluating plants here we need to take into account such biology so as a species is not selected or rejected because management was unfavourable to it.

- Linoleic acid is a major component of brown fat found in new born animals. Work in the U S has shown that the cold tolerance of calves can be greatly increased by feeding their mothers safflower oil for the last fifty days of pregnancy. Does this work in sheep? Linoleic acid may be able to be incorporated into feed blocks and evaluated here.

THE LEGUME INTRODUCTION PROGRAMME

by David Parsons

This article is an outline of the legume introduction programme. Hopefully you will find it useful and interesting to know what we are up to and what we hope to achieve.

Poly-tunnel and potting-out area

Our first activity, which is already in progress, is to put in place the equipment needed for growing a wide range of plants at the Department of Agriculture. This includes clearing an area for laying out pots, and constructing a poly-tunnel, and will have two main purposes. Firstly, it will enable us to produce the large numbers of seedlings that are needed for experimental field work. Secondly, it will give us the space to be able to hold samples (in pots) of all our plants. This will be extremely useful for "keeping an eye" on the different sorts of plants, for when they flower, when they set seed, how they react to frosts, and other information.

Fitzroy Legume Nursery

Initially, the focus of our work will be at Fitzroy, where we will plant rows of a large range of legumes. Because of the many different varieties of plants available to test, it won't be possible to plant them all this spring, so we'll be concentrating on the plants that we feel are most likely to succeed, and making further plantings in autumn and spring next year. We'll be assessing how well the plants germinate and establish, how much feed they produce, and how they react to the climate. From this initially large number of plants, we aim to select a number of varieties which look promising for further investigation.

Further work on selected legumes

Once some initial selections of legumes have been made, further work will be needed to determine the best methods of establishing these legumes, and what they require in terms of plant nutrients. Factors to look at may include:

- Methods of establishment (e.g. direct drilling & herbicide application)
- Seed coating (Use of lime / Molybdenum / Phosphorus)
- Minimum levels of fertiliser

In addition, we will be trialing these legumes in a number of locations around the Islands. This will enable us to assess their success in a range of different soil and climatic conditions. For example, a plant that grows well near Stanley may not necessarily do well in the lower rainfall areas of West Falklands.

This future work on selected legumes is important before wide-scale sowing of legumes is started, as it will enable the Department of Agriculture to feel confident about making recommendations to farmers.

Areas of focus

a) Re-seeds

The programme will focus initially on finding suitable legumes for re-seeds. A lot of time and money has gone into establishing re-seeds, and the introduction of a legume will stop their decline in production, and rejuvenate them, by helping the cycling of nitrogen. Also, it is physically easier to sow legumes into established re-seeds than other areas of camp.

b) Coastal Greens

Because of the high fertility of coastal greens, brought about through the efforts of penguins, they are well suited to introducing legumes. For this reason, we will be trialing a number of legumes likely to succeed in such conditions. The sandy coastal greens are particularly subject to erosion, and so we will be concentrating on deep-rooted plants such as lupins, which do particularly well on sand, and reduce erosion by holding the soil together.

c) Valley Greens

Due to the higher fertility of valley greens, and the trampling effect of stock, valley greens tend to have more desirable species of vegetation growing than surrounding areas. Introduction of legumes to valley greens would help even more, to lift the fertility and provide more animal feed. We will be trialing a number of plants, such as Lotus, which may have potential for the damp valley greens.

d) Other Areas of Camp

The last, but by no means least, area of focus, will be to introduce legumes to areas of camp dominated by Whitegrass, Diddle-dee, Christmas bush, etc. This will be the most difficult situation to establish legumes, but is vital for increasing the area and success of re-seeds.

Integration with other programmes

There are a number of other programmes of the Department of Agriculture which are related to legume introduction. The beef development programme, and the sheep nutrition programme are both dependent on the development of legumes. Direct-drilling and herbicide technology will be investigated as an alternative method of pasture establishment. The use of Rock Phosphate as a cheap source of phosphorus is being investigated, as is the use of calcified seaweed as a source of local lime. In addition, the more widespread use of legumes will require a higher level of grazing management, with the need for additional fencing. Overall, legume introduction should not be seen as a stand-alone programme, but as an important and integral factor in the development of Falkland Island pastures.

GAP STUDENT

The Department of Agriculture is still looking for a placement for a Gap Student arriving in October 1997 to March 1998

DO YOU THINK YOU COULD SHARE A STUDENT WITH ANOTHER FARM

all you have to do is:

Employ them
Pay them £70 a week
Lodge and feed them

If you think you may be able to help us, please call me (Charlene) on 27355

TELEPHONE NUMBER

Ian and Mark Gleadell's telephone number to their business, house and farm has not been printed in the telehone directory, their number is:

Telephone/fax No. 42113

ATTENDANCE OF THE 65th GENERAL SESSION OF THE OFFICE INTERNATIONAL DES EPIZOOTIES (OIE) OR THE WORLD ORGANISATION FOR ANIMAL HEALTH

by Andrew Coe

You may remember that I reported last year on my attendance of the 64th General Session of the OIE in Paris (Wool Press - Issue 80 July 1996, Pages 7 and 8). I don't want to repeat what I've said there but I would like to expand on it a little and tell you about my attendance at the 65th General Session in May of this year and why such attendance is important.

Firstly, as reported in the Penguin News at the time, my arrival at the meeting last year caused something of a stir amongst the Argentinean Delegation. Because we are a Dependent Territory of the UK and not a member of the OIE in our own right, I had to attend this years General Session as a member of the UK delegation in order for political protocol to be followed. However, there was no doubt in the minds of all the delegates who remembered last years problems as to where I was from and the Falklands were kept firmly on the map.

Secondly I was able to discuss a number of issues of relevance to the Falkland Islands such as Hydatid disease with the Chief Veterinary Officers of countries like Cyprus and Australia to find out what sort of problems they are having and how they are trying to tackle them.

Thirdly, and most importantly attendance at a meeting of this sort enables me to view and gauge the direction of the International Community with respect to animal disease control throughout the world. How do they view the disease BSE and how might that affect the Falklands? What about Foot and Mouth disease and the rapidly changing situation with respect to this disease in South America? Of course a lot of these things find their way eventually into International Journals but it is often a sanitised version that is reported and there is no guarantee that I will see the report even if I have time to read the relevant journal! There is no substitute for being on the ground at the right time and listening in carefully to conversations over a bottle of beer.

Of course I hear some people say, 'it's very nice to know these things but of what relevance is it to us down here?' Until quite recently, probably not very much at all. However, in the last couple of years especially, we have been having to get involved more and more with what the European Community does, thinks and above all expects. This is for two main reasons; Fisheries and the Abattoir. In both of these areas there are European Directives with which we have to comply if we are to benefit from the export of our fish and ultimately our meat into Europe. With these benefits and privileges come responsibilities, and sooner or later we will receive a visit from the European Commission to find out just how we do go about monitoring and enforcing compliance with the relevant Directives. Such a visit will involve a very close look at the Veterinary Services and at the legal powers conferred on the Service with regard to notifiable disease control legislation and, in the case of Fisheries, the legislation controlling hygiene standards on board factory vessels and ultimately the fitness of the fish for human consumption. If we are to be prepared for such a visit and be approved by the inspecting authority then we need to be in the centre of things so that we know exactly what is expected of us. This is probably the first time in the history of the Falkland Islands that the way the Veterinary Services are organised will come under the scrutiny of external auditors. We need to convince them that we know what we are doing and that there are no dangers to animal or public health in Europe if they import our products. Annual attendance at such meetings as the OIE General Session can only help to convince other countries that we are serious in what we are doing and indeed two delegates made that very comment to me during the General Session.

THE 18th INTERNATIONAL GRASSLAND CONGRESS

Winnipeg & Saskatoon, Canada, June 1997.

by Aidan Kerr.

Summary.

- I presented 2 papers - **"Restoration of degraded coastal grasslands in the Falkland Islands"** and **"Grazing systems research in the Falklands Islands"** as posters. Their full text was published in the proceedings and is available from the Department on request.
- Shortened versions will be published in Wool Press and the posters will be displayed to the public during August courtesy of the Standard Chartered Bank.
- 1,200 delegates from over 90 countries discussed over 30 themes on grasslands.
- A 'home-made' video and a report on points relevant to grasslands here is available from the Department on request. The topics covered include;
    - Future of world food production from grasslands
    - Biodiversity
    - Foraging behaviour
    - Grazing systems ecology
    - Mixed grazing
    - Improving the extension of research results
    - Electronic communications
    - Decision support systems in grazing management
    - Restoration ecology
    - Climate change
    - Satellite images, geographic information systems and farming
- The next congress is in Brazil, in February 2001. There is a good possibility that some of the delegates will visit the grasslands here on a pre-congress tour. Watch this space!

If anyone wishes to discuss the topics or has queries about the congress please give me a ring on 27355.

RESTORATION OF DEGRADED COASTAL PASTURES

A version of a poster presented at the 18th International Grassland Congress, Canada by Aidan Kerr

SUMMARY

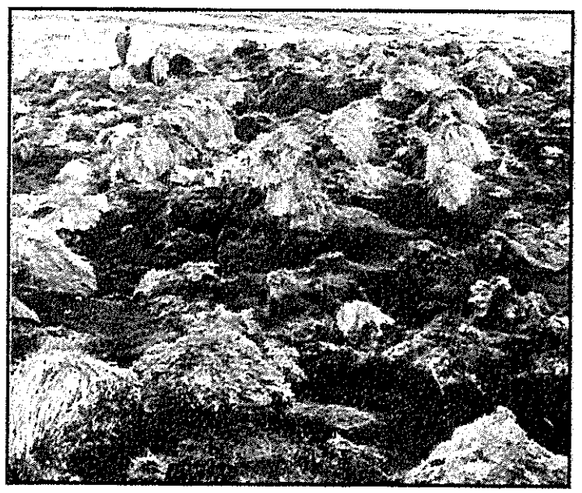
Our coastal grasslands are the most important habitats for wildlife, yet their potential remains undeveloped. Tussac grass and sandy areas have been degraded by overgrazing, burning and invasion by alien flora and fauna. Traditional approaches to restoration, mainly by replanting, have had limited success. Research on more holistic and ecological methods of restoration is proposed.

STATES

Reduced cover of plants, bare peat, sub-soil & rock peat/sand erosion, transport & deposition, invasion by undesirable plant species.

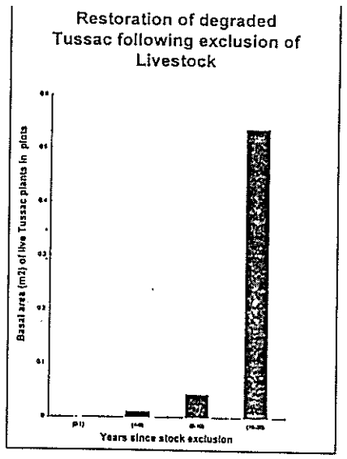
ASSESSMENT

Field surveys, aerial photographs, satellite imagery & mapping geographic information systems.

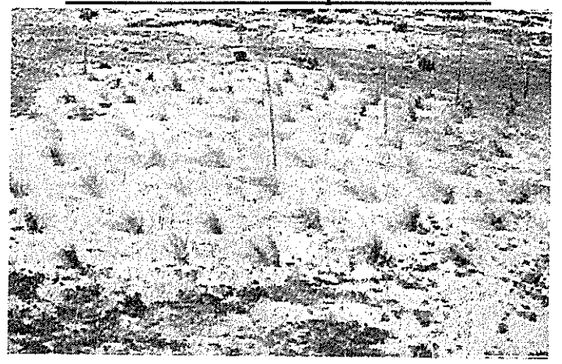


CAUSES OF THE DEGRADATION

Mainly MAN-MADE
Uncontrolled grazing, fire- natural & deliberate
alien- plants, fungi rust, insects, cats, rats, rabbits, hares, foxes.



Planted Sand Grass traps blown sand.



RESTORATION RESEARCH

Physical characteristics of soils e.g. sandy, clay etc?
Types & levels of nutrients e.g. phosphate?
Optimum planting sites, materials, treatment, timing?
Association between Tussac & micro-organisms e.g. fungi?
Use of seaweed mulches e.g. kelp?
Rehabitation by fauna e.g. seals, birds, insects?

Year Since Stock Excluded	Mountain Berry	Sand/Marram Grass	Yorkshire Fog	Tussac Grass	Diddle -dee	Small Rush	Sheep's Sorrel	Pearlwort
0-1	5	-	-	-	-	-	-	-
4-5	-	5	5	-	-	-	-	-
8-10	5	5	12	5	5	-	-	-
18-20	-	10	13	10	-	8	20	5

INFORMATION NEEDED

Impact of grazing on Tussac/Sand grass, movement & colonisation?
Livestock removal - how long?
Grazing by other animals e.g. hares, geese - significance?
Impact of fire on Tussac regeneration, water & nutrient cycling?
Impacts of alien plants & animals on native flora & fauna?

CONCLUSIONS

Most land owners are interested in restoration, but inputs are too expensive, & unable to remove stock for long periods.
The Falkland Islands Government provides assistance under the Rural Development Assistance Scheme.

The support of Queen's University Belfast & the U.K. Falkland Islands Trust and assistance by DoA staff is acknowledged.

WELFARE

By Andrew Coe

This month we reprint two very recent articles on animal welfare. The point of reprinting them is to demonstrate the need for us to take note of international thinking on animal welfare, particularly when we are on the brink of constructing an abattoir with the expectation of exporting meat to Europe.

Falkland Agriculture has a lot to commend in animal welfare terms with most agricultural animals able to behave in the way nature intended. However, there is as always much room for improvement. During talks and discussions with many of you, I know that there are a number of people who also believe that change is inevitable and in fact desirable. I also know that there are a number of you who are resistant to change,

In next months issue I intend to outline some of those changes that I believe are long overdue and also tell you what we are planning to offer in order to bring these about in a manner that is acceptable to you.

BETTER CONDITIONS FOR FARM ANIMALS CALLED FOR BEN7/13/1

Source: Press Association, Consumer Affairs Correspondent.

An overwhelming proportion of Britain's shoppers want better conditions for farm animals, according to a recently published report. Nearly half of adults said they weighed up welfare considerations before putting meat, poultry and dairy products into their shopping trolleys and 70 per cent said they were happy to pay more for goods from humanely reared animals. But only one per cent of adults said they trusted supermarkets to look after animals' welfare with far more preferring to trust the Government and farmers.

The survey, published on the first day of Britain's top agricultural event, the Royal Show, marked the third anniversary of the RSPCA's Freedom Food Scheme which lays down tough welfare conditions for farm animals.

Eleven million farm animals are being reared under the scheme and with their meat being sold in supermarkets including Tesco, Co-op, Safeway, Asda, Somerfield, Irish superstores Stewarts and Crazy Prices, and independent stores.

The survey also found consumers trusted the RSPCA above other organisations to look after animals' interests. The charity won a vote of confidence from 70 per cent of those asked compared to farmers' 19 per cent, the Government 5 per cent and supermarkets 1 per cent.

More than 1,700 organisations including farmers, hauliers and abattoirs have joined the Freedom Food Scheme which raises money for research into humane farming methods. Peter Davies, director general of the RSPCA, said "There is a huge and growing demand for farm animal welfare products which is borne out by this research.

"Our own tracking research started in 1993 confirms a rapid year on year increase in the number of consumers who take animal welfare into consideration when buying their food".

Supermarket chain Tesco has launched another scheme to improve animals welfare practices on farms and other supermarkets signed up to an assurance scheme covering fresh fruit and vegetable produce in the latest initiative to reassure consumers that British food is safe to eat.

REVISED STATUS FOR ANIMALS IN EUROPE

Source: The Veterinary Record June 28, 1997

A revised protocol on animal welfare, which gives new status to animals and could have far-reaching efforts on the way in which they are used, was agreed by European head of government at their summit meeting in Amsterdam earlier this month.

The legally binding protocol, which will be added to the Treaty of Rome, states that in future the development of EU policies on agriculture, transport, research and the internal market will 'pay full regard to the welfare requirements of animals' and that animals will be regarded as 'sentient beings'. Under the existing treaty animals are classified as 'agricultural products'.

The word of the protocol is based on a proposal put forward by the UK in July last year. Commenting on the news, Mr Elliot Morley, the UK minister with responsibility for animal welfare, said that the protocol represented 'a major advance in the collective thinking of the EU'. He added, 'Adoption of the protocol is not an end in itself, but it confirms that animal welfare has a place on the long-term agenda of the EU. It will ensure that all relevant European legislation takes account of this Government's desire to see the highest possible standards of animal welfare'.

The protocol should effect all the industries that use animals in each of the 15 EU member states. Forthcoming legislation which may be affected includes new welfare standards for battery-farmed hems and for animals kept in zoos.

THE MINERAL STORY (Sheep Research - Part 2)

by Sean Miller

Many of you would have read with interest, the article Caroline wrote last month about the mineral studies conducted at South Harbour back in 1990/92. So what led up to those experiments, what do they mean for you, and where are we headed next?

Over the last 25 years several experiments have been run both on West and East Falkland looking into the reasons why young sheep perform pretty badly at times during the year; some places worse than others. Amongst the many things that we have available to us at the Department are methods to determine the amounts of different chemicals that are present in plants. This helps us pinpoint what types of nutrients are missing from the diet of animals, and what can be included partically and economically to overcome the missing nutrients.

Plant analyses conducted across the Islands in the early 1970's showed the cobalt, selenium, copper calcium, and phosphorus are deficient in many plants at varying times of the year. This can mean that there simply aren't enough of these nutrients in the plants to allow the animals to grow as fast as their body could normally grow. Although there are many other nutrients that can cause growth and animals health problems, in this article I will deal with the ones listed below, since these are the ones that appear to be missing from many Falkands' plants, and are the ones that probably limit production in the Falklands more than any others.

Minerals are used by the body to:

Calcium
Forming bones and teeth, muscles contractions, sending electrical impulses along nerves and messages between cells, blood clotting, activating and stabilising enzymes.

Phosphorus
Bone and teeth development, construction and transporting fats around the body, constructing proteins, controlling appetite, assisting the transfer and use of energy by cells.

Cobalt
Is used to form Vitamin B_{12} an essential vitamin used to maintain liver function.

Copper
Constructing enzymes, building and breaking down cells, sending messages to other cells, building bones, maintaining heart function. An important component in making wool.

Selenium
Assists growth and fertility, anti-toxin effects, and protects against effects of heavy metals.

Although mineral levels in plants may sometimes appear to be low, the important thing to look for is an imbalance between the various minerals. Sheep can grow without problems on low levels of minerals, however when the proportions of each mineral are out of balance with each other, problems can occur. As a result of looking at some plant analyses in the Falklands, experiments were set-up to see if giving cobalt, copper and selenium to sheep improved sheep survival and growth on different properties on the West and East.

West versus East Falkland

In all of the experiments that have been conducted in the East and the West, it is the West that has come off worst. As far as we have been able to detect, sheep in East Falkland do not suffer from cobalt, copper or selenium deficiencies that affect wool production, sheep survival or growth. On the other hand, south of Fox bay on the West, sheep respond to supplements of cobalt.

Cobalt, selenium and copper

The cobalt story is particularly interesting. Back in the 1940's some farmers were already giving cobalt to their sheep in response to poor sheep growth. This was pretty switched-on thinking by these farmers, as it was in Australia in 1935 that cobalt deficiencies were first found. So news did actually travel fast to the Falklands back then!

In one case at Fox Bay East, wethers grew more wool when supplemented with selenium, however this has not been detected anywhere else on the West. Similarly, we have not been able to prove that sheep respond to supplements of copper on the West. This is despite all of the grasses tested having very low copper levels.

Calcium, phosphorus and vitamin D

The study at South Harbour was the latest attempt to find answers to the puzzling occurrence of fragile bones in that area. In the last year of that particular study, sheep were treated with a drench (to get rid of worms) or injected with vitamin D. Under normal conditions, sheep obtain their vitamin D from the grass they consume, and by manufacturing it in the skin. This process relies on a steady supply of ultra violet light (UV). In places such as the Falklands where the sun does not rise very high in the sky during winter, very little UV passes through the atmosphere to reach the ground, and in winter very little vitamin D is made by the plants, so sheep suffer from a deficiency. This would be quite so important if there was a good supply of calcium in the plants. Vitamin D is used by the body to control the amount of calcium that is absorbed by the body, and thus controls the development of bones, amongst other things. When both calcium and vitamin D are in short supply, the whole system gets out of balance, and problems occur. The results of the study at South Harbour suggest that this may well be the case there.

Recommendations

So what does all this mean? There are many symptoms associated with all mineral deficiencies, and range from specific things such as fragile bones and steely wool, through to general symptoms like poor growth and ill-health. Symptoms like these last two make identifying mineral deficiencies very difficult, and are characteristic of many different diseases. For this reason, if you suspect mineral deficiencies in your animals, the first call should be to your vet. Sorting out which minerals are causing problems is a complex task, and incorrect supplementation can be both costly, and for compounds such as copper, deadly.

If you have sheep in the southern region of West Falklands, your sheep are likely to grow faster, survive better and produce more if they are given a cobalt supplement. Nothing we have done suggests that copper improves production, even on the West. Similarly, it is unlikely that sheep need extra selenium anywhere in the Islands, except near Fox Bay. The calcium story is more complicated, and until we can follow up on the results of the vitamin D experiment, we cannot say whether there is an economic benefit by providing sheep with more calcium and/or vitamin D, and whether this problem is more widespread than just the West. This we hope to find out in the next year or so.

Watch this space for more in the future!

CATTLE YARDS PART 2 (Construction Details)

By Robin Thompson

The first article in this series detailed some of the management reasons for handling cattle and how animal behaviour characteristics can be used in the design of handling facilities.

This article looks at the design specifications that ensure yards work well.

The size of yard required is determined by the number of animals required to be handled at any one time. As a rule of thumb adult cattle in a holding yard require 2.25 square meters per head where as in forcing yards 1.8 square meters is required. As a minimum a set of yards needs to have a head bale or cattle crush, a race, forcing yard and a holding yard ideally arranged in a curve. Additional holding yards are a convenience allowing more animals to be held and drafted into different mobs. Holding yards can be small adjacent paddocks provided there is good access from them to the yards. Ideally the yards should be connected to the rest of the farm by laneways so that one person handling is achievable and easy. If the basic design of a set of yards is good then they can be progressively built as resources and animal numbers demand.

Gateways are very important. They must be wide enough so as not to cause bottle necks and open fully against an adjacent fence. Location of gates in corners improves animal movement as there is always a fence to guide the animals. Generally yard entrance gates are 4.8 m wide with internal ones being 2.4 meters. Sliding gates in the race and head bale area are essential. Gate latches are many and varied ranging from sliding bolts to chains.The design chosen should be one that allows quick operation and does not act as a bruise point. Fence height ranges from 1.8 to 2.1 meters depending upon mature animal size and how docile they are. Timber rails are generally 150 x 50 mm and long enough to span two panels for maximum strength. For a 2.1 meter high fence using 5, 150 x 50 mm rails the between rail spacing from the ground is 330, 230, 230, 280, 280 mm. Rails can be attached to posts in a variety of ways including nails, bolts and wire twitching. Race and high impact area posts are generally spaced 1.8 m apart with others being 2.4 m apart. This spacing therefore determines the length of rails required. Race and gate posts should be in the ground a minimum of 1000 mm and others 900 mm.

Race width is critical because if it is too wide animals will turn around but if it is too narrow large animals will not fit. A good width is 700 mm inside measurement. A V race design tapering from 700 mm at the top to 500 mm at the bottom makes the structure more suitable for a wide range of animal sizes.

Inclusion of an elevated walkway along the race enables operators to reach over the fence to manipulate individual animals. Manways constructed up to 280 mm wide with rubber flaps provide easy access to pens and a quick escape route.

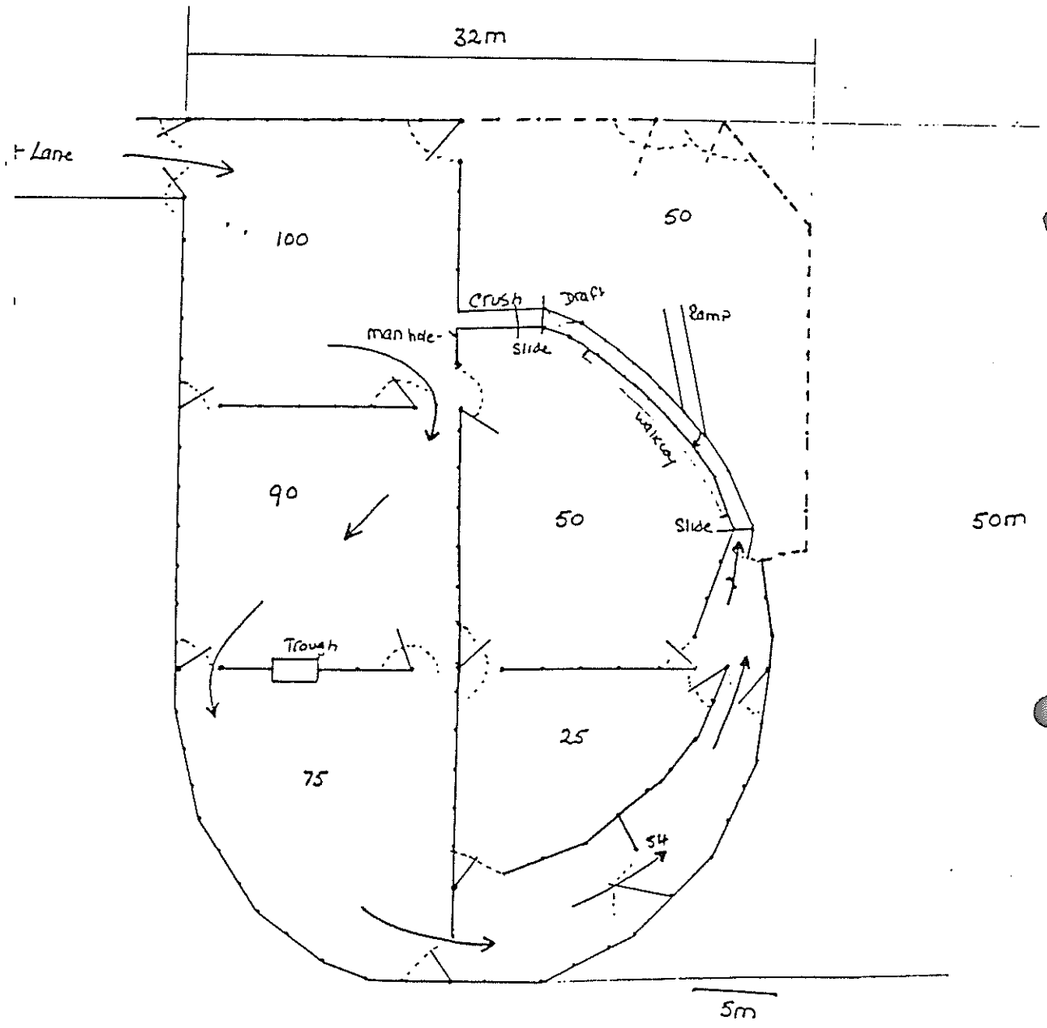
A good working surface is essential so concreting heavy work areas such as races and forcing pens is a good investment. Peat will often blow away when the vegetation cover is removed. It may therefore be best to remove the peat prior to start of construction and replace it with gravel or shingle.

There are many yard designs and a wide range of materials can be used in their construction. The basic principle to remember is that yards must allow the safe, easy handling of animals

with minimum stress on man and beast. If this can be achieved good animal husbandry practices are sure to follow.

The cattle yards to be constructed at Brenton Loch will try to take account of the above principles and will serve as both a functional asset and demonstration design. Below is the plan for these yards.

SALADERO CATTLE YARD



MATTING USED ON 'TAMAR FI'

by Robin Thompson

During farmers week there were enquiries as to the supply source of the anti slip matting to be used on the Tamar FI. The details are as follows:

Nuway Matting Systems Inc.
Halesfield 19
Telford TF74Q
England
Phone: 44 01 952 680 400
Fax : 44 01 952 585 930

This matting is a rubber product called flatlink with the individual components connected with stainless steel wire. Cost is £53 per square meter with a discount of 20% for orders over 10 square meters.

TOUR OF CHILE

by Robin Thompson

Whilst in Punta Arenas recently I spent time with farmers, Department of Agriculture officers, University teachers, Standard wool and the abattoir owner. This region of southern Patagonia is a similar environment to that of the Falklands and supports mainly corriedale sheep and beef cattle. Farmers and agribusiness from this region are keen to host a farmers tour from the Falklands. This would be an excellent opportunity to see how this area is farmed and maybe pick up some information useful on your own farms. If there is sufficient interest the tour would be in early autumn next year.

Contact me at Goose Green (phone 27354 or fax 27353) if you are interested.

WANTED TO BUY - URGENTLY

For a Honda 300 FWJ 4wd Big Red bike

Frame Chassis

If anyone has one for sale, please contact:
Charlene at the Department of Agriculture

THE NEW GRASS PROGRAMME

A Radio talk given by Bob Reid

Over the last few months we have featured the Agricultural Departments moving into Legume Research and there is no doubt (in my mind anyway) that his is an area that requires the highest degree of prioritisation. The long term sustainability of livestock production in the Falklands, put simply, will be dependent upon us finding adapted legumes. These legumes will provide better quality feed and in the longer term lower our costs of production, and most importantly provide nitrogen for the grasses.

But which grasses? Past research has already told us that Whitegrass is of very poor quality for much of the year and in diddle-dee country there is not much grass anyway. So this will mean we have to find suitably adapted and hopefully productive grasses to provide the better quality nutrition we are seeking.

Where do we look and what characteristics are we looking for? Well probably a good place to start is on the pastures that are already considered good by Falkland Island standards, that is our coastal and valley greens. Both these areas usually have a good component of two of ouR most valuable adventive grasses (adventive meaning they arrived here by accident rather than being deliberately introduced). These are smooth-stalked meadow grass (Kentucky Blue Grass, if you are an American) and if you wish to use the correct terminology, *Poa pratensis*; the other is Bent Grass (Browntop if you are a New Zealander) and again the correct scientific name is *Agrostis capillaris*. Both these species have proved to be very well adapted. They provide much better quality than whitegrass and diddle-dee, their prostrate and rhizomatous habit makes them ideal for covering bare-ground, they respond to improved fertility, and sheep like them. In fact once established they are remarkably resilient and seem to be almost impossible to graze out. Both are invasive and this is exemplified by them growing along the new camp roads and where farmers have rotavated tracks.

So if these two grasses are so good why don't we just concentrate on sowing them? Firstly seed of our locally adapted types are not available commercially and secondly there are many better species still to be introduced. Nevertheless the local material is of interest and the Department of Agriculture will be collecting the best forms this coming year and sending seed to Australia and New Zealand in order to ascertain their seed production potential. If we can interest a commercial grower in them then we will have a ready source of "known" quality seed when we need it.

Our next approach is to test species that are already available commercially in other countries. Species that have the characteristics we need - climate adaptation, ability to grow on very acidic peaty soils, wind tolerant, easy to establish, palatable and forgiving of poor management, just to name a few. The problems here are that in most situations the advertising hype does not live up to its promise when the plants are in the field. The other and probably greatest cause of failure, the advent of the "instant" expert, the person who has only a scant knowledge of the soil/climate/and ecological conditions of both the country where the new plants are coming from and where they are intended to grow. The world is full of huge failed grassland improvement schemes where the sowing of poorly adapted species has been a feature of the programme. It is easy to come up with a quick fix, it is not so easy to see the task through and guarantee the plants will in fact work in the long term.

Nevertheless there are species and cultivars of species that are worth evaluating in the Falklands. Two obvious species are those already noted. There has been a lot of effort in breeding and selection in Canada, Norway, Iceland and Denmark and it would seem sensible for us to obtain seed samples for trial under our own conditions. Robin Thompson our Beef Specialist has just come back from the International Grassland Congress in Canada and has brought lots of new information on *Poa pratensis* - and it looks good.

The third approach is to collect species in their country of origin, or access the programmes of other grassland scientists in areas that have a similar climate and soils much like our own. I have in fact been doing exactly that for a long time and maybe at this point I may be forgiven for expanding a little more on the background of the current programme.

I left the Falklands in the early sixties, full of the zeal of youth, after having been introduced to the problems of pasture improvement here by a number of respected and well know shepherds, people like the late Archie Short and our own Arthur McBain and Prof. Wannop of the Hill Farming organisation in the U.K. I realised that I knew very little of the processes but that the pioneering work was being done in Australia and New Zealand and so I set off in order to "Learn My Trade". Over the years I specialised in finding pasture plants (and that includes trees and shrubs) to solve particular problems, at first not too successfully (shades of the "instant expert") but as I acquired more experience and knowledge I was able to play a part in solving other peoples pasture problems. I collected and/or evaluated in over thirty countries and was able to access many of the best collections the world had to offer. While I was doing this I always kept up with what was happening in the Falklands agriculturally, particularly the pioneering work of Colin Young in the late sixties, Jim McAdam in the seventies and Tom Davies and his team in the seventies and eighties. As I collected in countries with a similar homoclime to our own I would put the grass seed through a multiplication programme and into long term seed storage until such times that a "new" grass programme was ever likely to get under way.

Why weren't the grasses tested in the Falklands at this time? Well quite rightly the previous research work concentrated on both understanding the pastoral systems in the Islands and focused primarily on utilising native pasture. The situation has now changed in that pasture improvement is seen as the next research priority and there is a clear willingness within the farming community to go in that direction. So now the seed that was collected for example in Norway in 1978, the rhizomatous Red Fescue in Oregon in 1988 and the new hybrids from the Australian Phalaris Breeding programme can now be evaluated in the Falklands.

By the end of 1998 I confidently expect that our grass collection will be in excess of 800 accessions. Not all of course will be tested at the same time (The DoA might be good but were not that good!!) but we expect to rapidly screen about 150 per year. Hopefully most will fall by the wayside and we will be left with 5 or 6 really promising species that we can concentrate our efforts on.

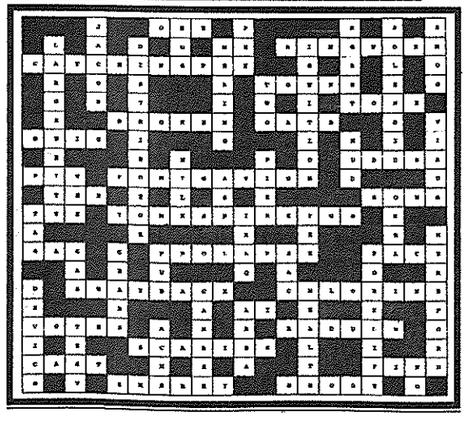
What species am I talking about?

Well we may have to learn a new pasture vocabulary - such as :-

Alpine Blue Grass	(*Poa alpina*)
Tufted Hair Grass	(*Deschampsia cespitosa*)
Polar Grass	(*Arctagrostis latifolia*)
Bering Hair Grass	(*Deschampsia beringensis*)

These four grasses are found in various parts of the Northern Hemisphere in many shapes and forms. I have a number of ecotypes that perform well on wet, acid, peaty soils; that survive in windy situations, that are very palatable to livestock. They offer a great of promise for us to finally get well adapted, robust and resilient species. Not all will be successful, some will exibit initial wonderment only to collapse after 2/3 years, but some will come through the evaluation process with flying colours and today's strange name will become tomorrow's bread and butter.

ANSWERS TO JULY CROSS WORD

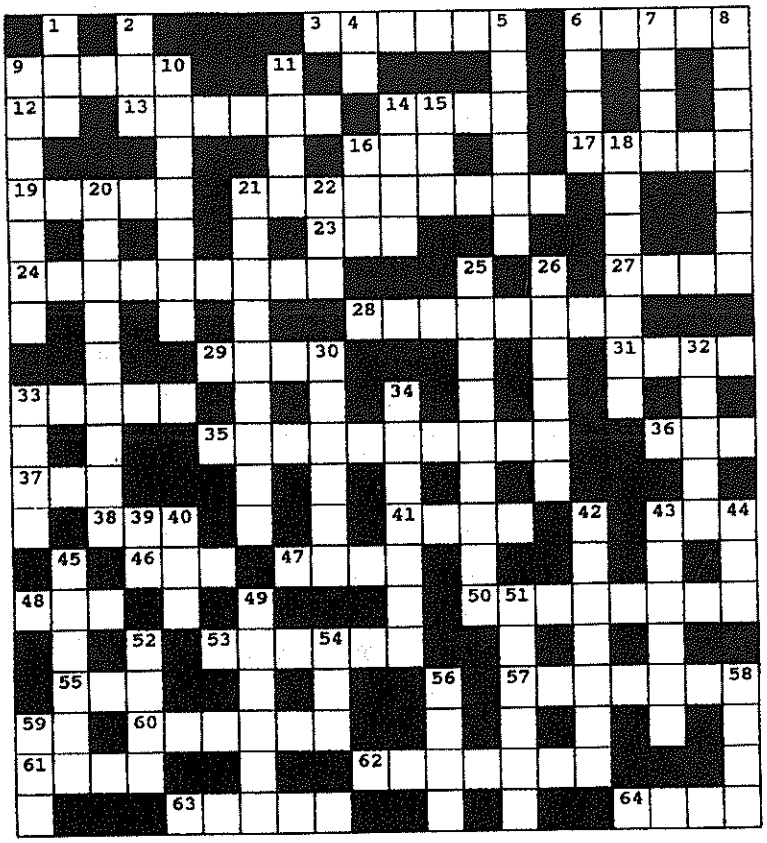


WANTED TO BUY

Any sets, part sets or pieces of horse gear - anything considered.

Telephone: Lucy Ellis on 27355

AUGUST CROSS WORD



ACROSS

3. HANDLED CARRIER
6. BED-TIME DRINK
9. LOOKED TOWARDS
12. ANY TIME AFTER THE BIRTH OF JESUS
13. STRAINER
14. GARDEN INVERTEBRATE
16. SPACE OR STUDENT
17. ANIMAL RIDDEN AT SPORTS
19. TEMPORARY HOLDING ARRANGEMENT OF PROPERTY
21. FIRST MILK
23. FIRE REMAINS
24. RAM OR WETHER
27. GIVEN MONEY
28. FUEL TYPE
29. AREA OUTSIDE STANLEY
31. AN ASIATIC HARDWOOD
33. LEG/FOOT JOINT
35. USED TO SYNCHRONISE OESTRUS
36. OVA
37. FOX-LIKE
38. CUTTING TOOL
41. LOUD LENGTHY CRY
43. PRODUCE TEARS
46. UNHAPPY
47. DOOR OPENER
48. AIRBORNE SERVICE
50. HORMONE COMPOUNDS
53. YOUNG PIG
55. THROUGH
57. BUSY ANIMALS
59. THANKYOU FROM A CHILD
60. SHEEP BREED
61. SEASON
62. PUSS-FILLED POCKET
63. BIRD OR BAT MANURE
64. SHEARING ACTION

DOWN

1. MALE PARENT
2. FOOTBALL ADJUDICATOR
4. ELEVATED
5. GROWTH
6. LARGE MILK PRODUCERS
7. SOLID WITH SIX EQUAL SQUARE FACES
8. TERMINATED BEFORE COMPLETION
9. MAIN U.K. SHEEP PRODUCTION
10. AILMENT CAUSING LOSS OF CONDITION
11. DISPLAY
14. CLEAN
15. CHOOSE
16. PIG BREED INITIALS
18. SMALL ARM IN MACHINERY THAT OPENS AND CLOSES VALVES
20. SET OF SPECIAL SPANNERS
21. SURGICAL BIRTH
22. RACE CIRCUIT
25. INDIAN SHOES
26. HATE
30. SLIDING CYLINDER VALVE
32. RAGE
33. AS WELL
34. TOWING BRACKET
39. LIKE
40. A HANDFULL OF NOTES
42. IDENTIFICATION MARKERS
43. SHAPING AND CUTTING TOOL
44. DEFINATELY
45. IMMATURE INSECTS
49. A RUPTURE
51. MATHS MULTIPLES
52. FLESHY SKIN GROWTH
54. OLD NO
56. DON'T FAIL
58. WINTER GROUND COVER
59. DEFINITE ARTICLE

Compiled by Mandy McLeod

WOOL PRESS

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IN THIS ISSUE:

PLUS ALL THE REGULAR FEATURES AND MORE!

The Wool Press is published by the Department of Agriculture. Editor: Mrs Charlene Rowland.

EDITORIAL

The 1996/97 Annual Farming Statistics are finished and enclosed in this months **WOOL PRESS**. If for some reason any farmer has not receive a copy, please let me know so that I can get a copy to you.

Hopefully later on this month, the Department should have the 1996/97 Annual Report finalised and distributed to all farms. The Farm Management Hand Book and Statistical Review is slowly coming to grips, if you should have any suggestings on what would be interesting and informative, please let me know so that I can investigate.

Owen should be arriving back towards the end of September after a Study Farm Tour of New Zealand, Australia and Tasmania. Andrew Coe and family have taken a well earned holiday and should be back home early October.

I have received some very interesting Farm Profiles over the month, it's very encourageing to see that so many farmers are interested in this new page. I am hoping to print Port Stephens in the next issue. I would also like to get a Person Profile going - any suggestions on who!!

STONES AND DUST

From Mel Lloyd of Swan Inlet

We pick up the riders and give them the choice to
ride on that trail to Goose Green.
But they all say yes, cause they don't know
the state they'll be in, when the
hail stones and dust has got to their guts
and their legs and their backsides as well.

It starts off just great, but by the first gate
the wind has increased to a gale.
You reach in your sock for your first nip of rum
and it tastes like an old rusty nail.
But the hail stones and dust gets right in your guts
when your riding the trail to Goose Green.

So its hail stones and dust that gets in your guts
and your mind and your wellies as well.
By the end of the trail, when the rum has all
gone and your face isn't so pale, its the hail stones
and dust that gave them the guts, to continue the ride
on that trail.

THIS MONTHS CONTRIBUTORS

Sean Miller	Sheep Husbandry Officer, DoA	Zoe Luxton	Veterinary Student, FIG.
Andrew Coe	Senior Veterinary Officer.	Andrew Pollard	Agricultural Student, Wales, UK.
Doug Cartridge	Wool Adviser, DoA.	Robert Hall	Falkland Wool Growers Ltd.
Robin Thompson	Beef Specialist, DoA.	Aidan Kerr	Senior Scientist, DoA.
Mandy McLeod	Farm Management/Training Officer, DoA.		
Nick Pitaluga	Farmer, Salvador Farm.		

SALTED SHEEP SKINS

By Doug Cartridge

During the last few months we in conjunction with Falkland Island Wool Marketing put together a consignment of 600 salted skins for shipment and subsequent assessment in the UK. The operation went very well though we are still waiting for the final grading of the skins. I have been assured that the skins will be worth, net of freight (UK) and cost of salt, a minimum of £1.50/skin to the farmer. Some of the skins (estimated at 40%) have a potential value of £3.50 net, these being skins which are suitable for 'double facing' (i.e. used for making garments with a short pile of wool still attached e.g. gloves etc.) the balance requiring to be fell-mongered. Freshly shorn pelts have no value, though skins one month off the shears have a value no less than stated above.

Falkland Islands Wool Marketing are keen to progress with this operation and are subsequently freighting down more salt. To make the operation of collection and shipping more efficient three farmers have been appointed as distribution/collection agents for FIWM. They are Gavin Marsh, West Falkland; Terrence Phillips, North Camp and Bobby Short, balance of East Falkland (Island Farmers can contact any of the above.). It is the individual farmers responsibility to collect salt from these people and deliver back to them salted skins, or arrange another delivery point.

The salting procedure is simple though care must be taken when skinning to insure no cuts are made in the pelt. We require urgently to be contacted by people interested in making a few extra pounds from a product that is in most cases currently dumped. This request was put out at farmers week but little response was forthcoming, so get on the phone and give either myself or the agent in your area a call to confirm your interest in supplementing your income.

Below is a description of the required salting procedure, it is imperative that the skins are salted right to the edges.

1. Following slaughter, open up the skin. Lay on ground flesh side up to allow body heat to disperse, 15-30 minutes should be sufficient. Care should be taken to see the skins do not dry up in the wind.
2. Rub salt in the skin, about 1 kilogram per skin. Take care to open up all areas properly. Place skins in piles flesh to flesh. Allow to stand for 4-5 days. Liquid will drain from the skins, this is normal, allow liquid to escape.
3. Re-salt using 0.5 kilograms salt per skin, fold down back bone flesh to flesh, stack on pellet or something similar for delivery to agent or destination point.

Salted skins keep for sometime (at least 6 months) if salted properly so deliveries can be made as it suits your travel arrangements.

Contacts

Doug Cartridge	Gavin Marsh	Terrence Phillips	Bobby Short
27355	42079	31113	32280

NOTICE

In an attempt to streamline our accounting procedures and make the system more user friendly the Department of Agriculture wishes to remind customers that we have introduced a system of cash payment for Veterinary services/drugs which will require payment at the time for consultation.

Customers are requested to make sure they bring cash with them when they visit the surgery. Camp customers are also encouraged to send cash/cheques where possible with orders for drugs, laboratory tests, account books etc., however, in instances where this is not possible the usual billing system will be used.

WHAT ARE SHEEP EATING - (Sheep Research - Part 3)

By Sean Miller

What is out there in camp that sheep are actually eating, and what plants are the best? These questions have been, and are still asked by both farmers and Department of Agriculture staff. They are important questions as the answers establish just how well sheep can do on the pasture, and how we can make changes to get them to grow faster and to produce more wool.

Over the last 10 years, several experiments have begun to seek answers to these questions, and much still remains to be done.

Rumen contents

The most useful experiment so far actually looked at what plants were present in the rumen of several sheep grazing whitegrass paddocks. The rumen is the large first stomach of the sheep, and is the first site at which plant digestion takes place after the sheep eats the plant. Fluid from the rumen was obtained and examined under the microscope and the plant fragments were identified. The abundance of each type of fragment was used to estimate how must of each plant was eaten by the sheep.

In total, 12 different plants were seen in the fluid, and whitegrass was the most frequent. That is, the sheep appeared to eat much more whitegrass than any other plant. In fact up to 90% of the plants eaten by the sheep was whitegrass. Unfortunately, this method is inaccurate at times because different plants are digested at different rates. For this reason, the more nutritious plants, which are also digested faster, disappear from the fluid very quickly and leave the poorly digested plants behind, *backlogged* in the rumen. Whitegrass is very poorly digested and hence the results gained in this experiment were probably inaccurate, suggesting that more whitegrass was eaten then was actually the case. This also fits in with what farmers say; that sheep probably don't eat a lot of whitegrass (particularly during summer, which is when the experiment was done), but in fact spend most of the time hunting around between the whitegrass plants looking for the green, fine leafed grasses and herbage.

Grazing height

An experiment conducted at Fox Bay a few years ago looked at how high in the grass sheep were grazing. The results suggested that sheep spend most of their time grazing short grass (less than 6 cm above ground level). As you will all know, sheep have a very good set of front teeth that allow them to graze very close to the ground, picking up even very small pieces of grass. This experiment confirmed that the short grasses, i.e. those growing between the whitegrass plants, are probably more important to the diet than whitegrass.

Alkanes

Alkanes are chemicals that are present naturally in all plants. In addition, each plant has its own particular combination of alkanes, much the same as human fingerprints are all different. By collecting samples from the animal, these differences between plants allow us to work out what plants have been eaten. In addition, we can feed sheep small quantities of alkanes, types that are not found in plants, and since we know how much we feed them, and how much of the natural alkanes are in the plants, we can then work out how much grass has been eaten by the sheep, and how much energy they have got from digesting the plant.

This method was first used at Goose Green when the goats were brought into the Falklands, to check whether the goats could be used to chew out areas of Diddle-dee. Consumption of Diddle-dee and Whitegrass was examined in both sheep and goats in the same area. In Whitegrass dominant plots in December, the goats did not eat Whitegrass or Diddle-dee. In Diddle-dee dominant plots, the goats' diet consisted of 17% Whitegrass, and just 3% Diddle-dee. Thus 80% of what they ate were other plants. In February, sheep and goats ate similar amounts of Diddle-dee in a Whitegrass dominant plot (3% and 1%, respectively), and sheep ate much more Diddle-dee than the goats in a Diddle-dee dominant plot (24% and 4%, respectively). In April, the goats ate up to 5% Diddle-dee.

Comparing the sheep and goats, sheep tended to eat more Diddle-dee than goats during autumn. Unfortunately, the experiment wasn't continued after April because the goats were pretty well fed up of the Diddle-dee plots, and decided it would be more fun to climb the fence and head for greener pastures! This is very similar to Australia where goats have been used in an attempt to control woody plants; that is, goats will certainly eat any old rubbish, but they will eat everything else that's better first!

A Summary

So, where does this work leave the farmer? Well, we still know very little about what sheep in open camp are actually eating, and the value that they are getting out of their food. All of the work that has been done so far is very preliminary stuff and needs to be re-focused and finished. It is only when we can work out what nutritional cycles face sheep, young sheep in particular, that we can develop systems to improve growth and survival as they experience changes in nutrition during their crucial first years of life.

Over the coming 18 months we will be conducting a detailed study of the nutrition of young sheep in the Falklands. This data will pinpoint the important factors that limit survival and growth of young sheep, and provide the necessary information to develop practical and economical systems to optimise sheep production under camp conditions.

CORRIEDALE STUD FLOCK

By Doug Cartridge

Many of you will have noted that at a recent meeting of EXCO the establishment of a Corriedale Stud Flock was granted approval. Results from a survey conducted by the National Stud Flock Advisory Group (NSFAG) showed that 32% of farms would prefer to purchase Corriedale rams. This group of farms produces approximately 50% of the Falkland Islands annual wool clip.

The NSFAG advised that a Corriedale ram breeding operation should commence as soon as possible so as to satisfy the apparent farmer demand. They also agreed that the flock should be established by the importation of rams and screening of local, environmentally adapted Corriedale ewes. With due consideration to the alternatives it was recommended and agreed that Falkland Landholdings Ltd should be approached for co-operation with this venture. Mr Colin Horton, Managing Director FLH has subsequently offered the companies total support and assistance to this operation with the following points being agreed;

* The flock will consist of approx. 1600 recorded ewes screened initially from the Goose Green flock but with access in the future to all FLH ewes for selection.
* The flock will be managed by FLH and situated at Goose Green with advice, recording and assistance provided by the Department of Agriculture.
* Fifty rams selected, on a pro rata basis, from the top 100 rams will be supplied annually to the D.o.A for sale to the farming public. All rams surplus to this will remain the property of FLH who may make rams available for private sale.
* Funding for the purchase of 50 rams will be provided 50 % by FLH and 50% by D.o.A.

An initial selection of 3300 ewes at Goose Green has taken place, this number will be cut down to 1600 with the use of fleece weights and micron and yield tests after shearing in early February 1998.

Rams will be imported from New Zealand in November 1997 from at least four different studs and selected by Wrightsons Export (NZ) overseen by John Sidey (Corriedale Breed Society Inspector) and finally by Colin Horton with the following selection criteria being attached;

* Micron 28max-25min.
* Must display good constitution.
* Must be open faced i.e absolutely no woolly headed sheep.
* No visible black spots on ears, face, legs or on any other part of the body.
* No hairy britch or excessive kemp.
* Adequate fleece weights preferably above flock average.
* Good character wool displaying good quality.

Unfortunately, due to limitations imposed by the airline on numbers of stock carried per consignment, there is no excess space available for the importation of rams for private farms. If there is sufficient interest a second shipment could be arranged at a later date to accommodate individuals requirements. If you are contemplating purchasing sheep, taking into account the cost will be in the vicinity of £1500-£1700 per sheep landed in the Falklands, please contact me as soon as possible so as I can gauge the level of interest.

BEEF CONSUMER SURVEY

By Robin Thompson

In July the Department of Agriculture conducted a survey of Stanley beef consumers. This was done as a personal interview of shoppers and involved contacting representatives from 163 households or a quarter of those currently in Stanley. The aim of the survey was to obtain quantitative consumer information of issues that influence how the beef industry needs to develop and at what speed.

Scaling up the survey results we concluded that 294 beef carcasses are currently consumed annually by Stanley residents. If there was unlimited availability of beef, future annual demand by the current population is predicted to be about 447 carcasses. Looking at the current beef cattle statistics which indicate the Islands beef herd has 1500 cows one must question why the market is currently under supplied. If these cows are only breeding every second year they should easily be able to provide 447 carcasses to Stanley as well as supply the camp families and maintain herd numbers. We need to determine why this is not happening so I would be interested in hearing your thoughts. It also suggests that we have sufficient beef cows to supply future consumer requirements and hence no need to import animals to quickly increase numbers.

About 60% of consumers want to buy more beef and if they were able to do this they would reduce their consumption of mutton. This may mean alternative uses have to be found for the displaced mutton and that farmers currently using this as a source of income may need to make alternative plans.

The price of beef and meat in general is a big issue for consumers. Some even went so far as to suggest that the beef development programme was acting to increase the price of beef to them. In a free market economy, price is a function of supply and demand. So at the moment if demand for beef is greater than supply the price would be expected to rise. In the long term however, farmers should not be expected to produce beef at a price lower than that which yields them a net income less than what can be achieved from using the land for an alternative enterprise such as wool production.

Consumers were asked to rate the quality of the beef they are currently able to buy. A common response was that quality is not very consistent and can often depend on where the animals were sourced. About a third of consumers described the quality of currently available beef as OK, poor or very poor. In the long term if beef is to capture and maintain a good share of the meat market, it's quality must be consistently good such that the meat bought today is of similar quality to that bought last week or last year. Meat quality is affected by breeding, feeding and on farm handling as well as transport, killing and presentation. The whole industry from the farmer to the butcher must therefore work together to achieve and maintain a high standard of product which fulfils the customers expectations. This should mean that the purchase of animals by the abattoir should be based on a carcass quality and weight price grid. If such a grid is used, producers get fairly rewarded for the type of animal they produce based on it's market suitability.

Eighty five percent of consumers indicated they would like to purchase their meat from a butcher shop because of the choice and convenience such an establishment can offer. They would expect such a shop to offer all the products including small goods, offal products and meat variety that would be found in a typical UK butcher shop. This is supported by 70% of respondents claiming they would prefer to buy their beef as selected cuts when they want them, rather than as quarters. Respondents indicated that their favourite cut of beef is steak. Consequently if there is a large demand for steak, a butcher shop needs to make other products in order to value add and sell the less favoured cuts.

The survey results therefore hold challenges for us all irrespective as to where we are in the industry. More importantly it shows that we must all pull together to satisfy our customers who ultimately are the judges (through their willingness to part with £'s) of all our efforts.

If anyone would like a copy of the whole survey report or would like to further discuss any of the above points don't hesitate to contact me.

GRAZING ENTERPRISE MANAGEMENT AWARD (GEM Award)

By Robin Thompson

We're looking for a GEM.

Aim: To foster the efficient and sustainable use of natural and improved grasslands for animal production.

Assessment component:

- Best use of available farm resources;
- Knowledge of pastures and grazing management principles;
- Adoption of new innovations or rational non adoption;
- Environment protection;
- Animal production and management;
- Physical and economic sustainablity;
- Vision for the future.

All entrants get at least a one day property visit by an agronomist/animal production person from the Department of Agriculture. Each entrant will receive a written assessment report and the opportunity to discuss it with the author.

The winner must host an on property field day and attend a farmers forum on the opposite island to which their farm is located.

ERRATUM

Telephone Number

Ian and Mark Gleadell's telephone number for East Bay Farm, haulage and business is:

Telephone/fax: **42013**

MOVE WITH THE TIMES !!

By Mandy McLeod

We are always striving to keep up with the world market in the wool industry, and have made great steps in the establishment of the *Quality Falklands Wool* scheme. However, we still have some very archaic habits.

Another set of farming statistics is hot off the press. This year though there is one major differences. Yes, we've joined the rest of the world and gone metric. At first glance some would think that they had 'spotted the mistake' and would dash for the phone in the delight of telling us. But this time it's deliberate .... you think that your farms have shrunk in the wash - until you read the new heading **'HECTARES'**.

A hectare (ha) is 100 metres x 100 metres.
One hectare (ha) is 2.471 acres.
One acre is 0.405 hectares.

Metric measurements are used globally, and with our 'distance' factor, life is a lot simpler when corresponding with other countries if we use an international language when we can.

I am a big offender of hanging on to the imperial system, but I have to admit that it can cause problems and confusion, particularly when someone quotes a figure by fax and I assume it's imperial and he is talking metric !

From ACRES to HECTARES in the farming statistics might seem like a small step, but it is an important one.

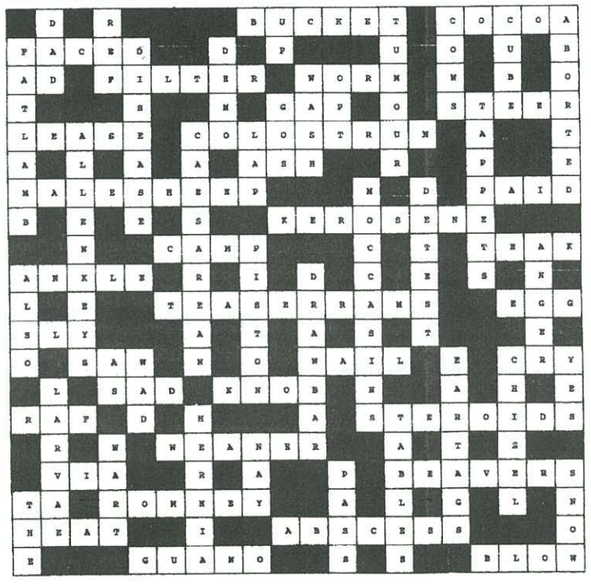
We really should think metric.

A SNIPPET From Velma Malcolm

Do you remember the story called ' Shearer is Top Scorer! 'The story was about **Geordie Bain** and was printed in the Wool Press No. 85 of December 1996.

Geordie Bain has got his name in the papers again. This time it is for shearing the famous clone sheep **'Dolly'.**

THE AUGUST CROSS WORD SOLUTION



Printed below is an excellant photograph of Arthur at Saladero. I am after a good caption to be printed in the next WOOL PRESS. **There will be a prize of a bag of fertilizer for the best caption**. So get them thinking caps on and return the caption to me either by letter or telephone before Monday 29th September.

DOG HANDLERS ASSOCIATION

From Ian and Susan Hansen

The Dog Handlers Association would like to bring to the attention of members that an increase in fees of £10 per handler/annum. This is to allow dog handlers to enter any number of dogs for the trials. Any persons who are not working dogs and would like to support the Association can still do so with a fee of £5/annum.

The Association would especially like to thank Mr & Mrs Peter Short for all their support and donations over the past eleven years and also to William Goodwin and Ray Hansen for their annual donations.

The 1997 Dog Trials are to be held at Port Howard on **13th September**. Entries are to Ian Hansen.

Grazing systems research

A poster presented at the 18th International Grassland Congress, Canada, by Aidan Kerr,

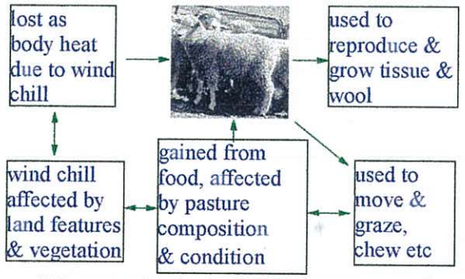
Aim: to develop grazing systems that will;

- sustain increased stocking rates & improved wool production
- protect the condition of 'camp' vegetation and soils
- be economically viable & socially acceptable

Summary.

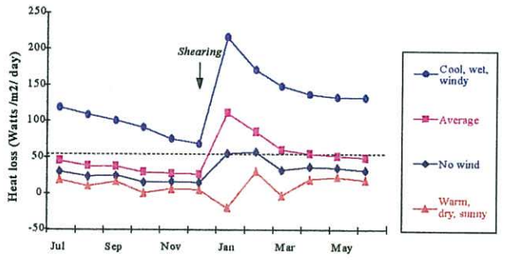
More sheep could survive, grow better and produce more wool if their energy levels remain balanced. Studies on the energy balance of sheep in relation to food and wind-chill, and on their grazing effects on vegetation and soils, are necessary for the development of improved grazing systems. Our research combines studies of plant ecology, weather, energetics, grazing systems and socio-economics.

Energy balance

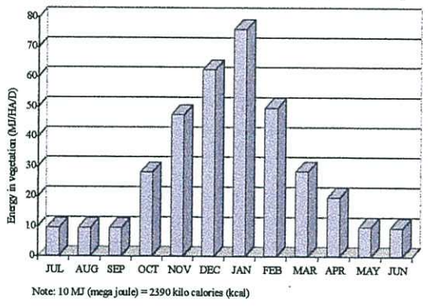


(Note: 'energy' means 'metabolizable energy' i.e. that used by sheep for normal body functions and growth)

Estimated heat loss of a wether sheep in a range of weather conditions.



Energy available from a Whitegrass 'camp'



Note: 10 MJ (mega joule) = 2390 kilo calories (kcal)

Which vegetation is the most valuable for grazing?

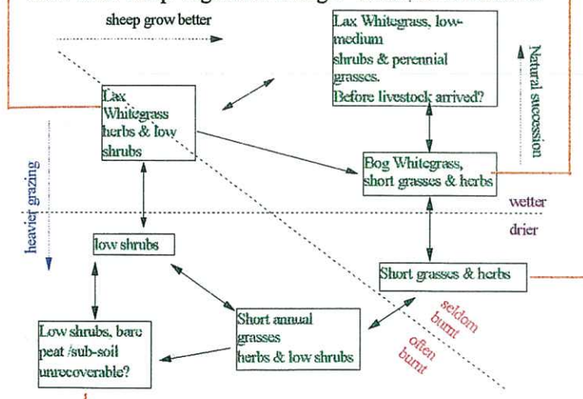
	Whitegrass		
	Greens	Bog type	Lax type
What % of 'camp' is covered?	15	15	41
How much * grows annually?	5 - 6	5	1 - 3
How much grows in spring?	1.2	?	0.2
How much is usually present?	1 - 3	6 - 22	2 - 4
How long are the leaves (cm)?	3	31	17
What % is green leaf?	70 - 89	40	29
What % can be digested by sheep?	55 - 63	50	43 - 48
What % is grazed?	65 - 94	20	20

* measured as tonnes per hectare (1 hectare = 2.5 acres)

Further work on the energy balance of sheep

- What are the relationships between heat loss, wind chill & land features (topography)?
- How much 'shelter' does a 'camp' offer and how can this be measured?
- How do topography & vegetation affect wind- chill?
- How far do sheep walk to feed, shelter, drink, sleep etc.?
- How does fleece thickness vary with time of year & sheep type?
- What are the energy needs for any sheep, at any time and any place?

How does 'camp' vegetation change? What factors cause it?



Further research on 'camp' vegetation

- What happens in similar situations elsewhere?
- What can we learn from differences on either side of fences?
- Large 'camps' contain many types of vegetation- which do we monitor?
- Where type do sheep prefer to graze? What plants do they eat?
- How nutritious is their diet? Can we improve it?
- Which types are most sensitive to changes in sheep numbers?
- Are 2-camp grazing systems better than 1- camp systems?

Grazing systems trial (Fitzroy*); 2 camps V 1 camp ('set-stocked' all year)? - First year results!

- during summer & autumn, more Whitegrass was grazed in the 2 camp system.
- when rested from grazing the 2 camp system grew 47-118% more feed for autumn-winter
- Overall sheep in the 2-camp system were heavier, gained more weight & were in better condition.
- they also produced 0.2 kg more clean wool than set-stocked sheep.
- the wool was stronger and worth 43p more per sheep.

* the assistance by FLH staff, Fitzroy Farm and DoA staff, particularly Mr John Jaffray is acknowledged.

FARM PROFILE

GIBRALTAR STATION

Owners: R.M. Pitaluga & Co. Ltd.
Established:1862 by Andrez Pitaluga.

Gibraltar Station locally known as Salvador, lies approximately 35 miles north/west of Stanley in the central north of the East Falklands. The property extends to some 52,000 acres boundaried on a peninsula by 15 or more miles of oceanic coastline, and there is an overland boundary with Kings Ridge Farm which runs for 3.5 miles between Limpet and Playa Creeks. The area is predominantly of valleyed coastlines, with extensive Whitegrass/Diddle-dee flats and hills to 200-250 feet, with one mountain of 487 feet!

The farm is geared to sheep farming and principally wool production, with a total clip of 60 tons/220 bales from 15,000 shorn per annum. The stock are from Corriedale extraction introduced in the 1950's, taking over from the crossbred/longwool breeds with which the farm was stocked on establishment. In recent years, fine wool market trends have led to a need for a reduction in overall flock microns. This has been achieved with combination of selection in the commercial flocks and the establishment in 1992 of a nucleus flock of Tasmanian Cormo. Cormo's were chosen for their close relationship with the Corriedale, high altitude and rainfall origin and other highly desirable traits, including temperament. The wool clip ranges from 22 micron in the 'fine A' hoggets to 30 micron at the bottom end of the breeding flock. A fully structured, tiered breeding system has been developed to take advantage of the relatively high lambing percentage (around 75% average) and to enable the best possible combination of sire and dam at all levels.

Labour on the property is usually 2-3 persons full-time,increasing to 5 in the summer, plus an additional 2 part-time. All shearing is by contract, bales are shipped by Tamar FI to Stanley ready for despatch to the United Kingdom.

Rotational stock grazing is used for all ages except 2-tooths and mutton age wethers, with the emphasis on regular camp changes being with the breeding ewes and hoggets. All gathering is done by quads and motorcycles and with a high level of subdivision throughout, a central sheep race is used for stock handling.

Cattle are now only run in very reduced numbers, mainly for beef consumption on the farm.

Diversification includes a lodge (now in its 10th year) and aimed at self-catering parties of up to 8 persons and to a lesser degree a motorcycle procurement and spares dealership for Honda. Virtually all mechanical maintenance is done on-farm, in recent years some contracting out at critical times necessary for jobs such as house dismantling, plumbing and fencing has been necessary.

Future plans include additional and improved fencing, stock improvement and to some degree (as with the present operation), the supply of suitable meat stock to the new abattoir.

Gibralter Station (Salvador) in full bloom.

FARM OPEN DAY / DISCUSSION GROUP SALVADOR

By Doug Cartridge

Nick Pitaluga has kindly suggested that an Open Day/Discussion group be held at Gibraltar Station early in October (maybe Wednesday 1st).

The themes of the day will be;

* Management of ewes prior to, during, and after lambing.
* Ram breeding, breeding system and breeding plan.

The day will take the format of a semi-formal discussion between people attending and the hosts. Weather permitting, it is envisaged that a brief look at the ewe camps will take place followed by inspection of Cormo sheep at the settlement. After lunch discussion will take place on the policies in place and where to in the future. This will be followed by an informal chat on the merits of the day and a discussion on the value of holding an East Falkland Sheep Show.

Everyone is invited to attend the day though much of the discussion will be more relevant to farmers in the North Camp area. The day will involve an early start meeting at Dolly's gate at approx. 8.00 am, this will allow adequate time for travelling overland and returning the same day. Because of this it will not be possible to meet planes arriving that day. Working 2 metre sets would be an advantage if you have one. If you wish to take part in this discussion please contact Doug Cartridge (Department of Agriculture 27355 or home 22351) by the 19th September. Further details will be passed onto those wishing to attend. Please make sure you bring your snack!!

IWS find continuing recovery.

Wool Record 15/8/97

The International Wool Secretariat find global wool pipeline recovery is continuing, with business conditions improving in Western Europe, China, Australia and India.

The IWS think that falling top stocks throughout the global combing industry should support the raw wool market in the present quarter. Pipeline activity is improving in Western Europe, backed by good orders and falling stocks. In the Pacific region, however, conditions are considered to be weakening with orders at combing and spinning tending to slow.

The outlook for Chinese raw wool demand is improving as combing orders rise strongly. The IWS thinks improvement will result from strong combing orders for the September quarter, making a return to raw wool markets necessary; and because an early Chinese New Year (in January 1998) should lend strength of Chinese buying in November and December.

Uruguayan prices.

Wool record 22/8/97

In Uruguay up to US$2.60 a kg. has been main, greasy farm-gate for a few Corriedale clips, 27-29 micron, yielding about 75% dry and immediately available (217 p/kg clean). The nominal price for a similar description on the sheeps back, to be shorn around October / November, remained at around $2.50 a kg with some advance payments.

Guanacos could be on for fibre.

Farmers weekly 1/8/97

Sheep producers could profit by running South American guanacos for fibre production. Results of a MAFF funded trial at IGER Aberystwyth have shown that running sheep and guanacos on an upland unit can increase productivity. Researcher Mariecia Fraser said the improvement could be due to differences in grazing behaviour. "Guanacos, which produce high value fibre, consume less clover than sheep, which can, over time, lead to an increase in clover in swards. This can increase liveweight gains for other livestock, particularly sheep."

Guanacos will eat dead, stemmy materials which sheep avoid, particularly rushes, thistles and unproductive grasses such as mat grass, said Fraser. The poorer quality feed had little effect on fibre quality.

HYDATID CONTROL

ARE YOU DOSING YOUR DOGS CORRECTLY?

By Andrew Coe

Having talked with various farmers around the camp, one of my concerns is that some dogs may be being underdosed with Droncit/Drontal. It is very important that minimum dose of 1 tablet per 10 kg or 22 lb body weight of dog is administered. At this dose there is a 100% kill of Hydatid tapeworm. As soon as the dose rate starts to fall below this then the effectiveness falls off quite rapidly. Both Droncit and Drontal are very safe and so a slight overdose is of no consequence. Because of this I should be grateful if all owners would use the following dose rates:

Dog	No. of Droncit/Drontal tablets
Small collies	**2**
Medium to large collie/small Huntaway	**3**
Medium to large Hunterway	**4**

I have had reports that **Drontal** can occasionally make animals vomit. If you observe that a dog vomits within one hour of administration then you should repeat the dosing with **Droncit** at the full dose rate.

Do not give **Drontal** to pregnant bitches without first consulting us.

If in doubt on any of the above, give us a call.

NOTICE

From Bob Reid, the Director of Agriculture

Are you interested in:

- **Growing trees and shrubs;**
- **Experimenting with new species and cultivars;**
- **Learning more about germinating seeds;**
- **Making your own potting mixes;**
- **Growing plants from cuttings;**
- **Sharing seed and plants;**
- **Enjoying the fruits of your own labour and skills.**

Then would you be interested in joining a Falkland Island Tree Growing Group?

A group that would hold regular meetings, share knowledge and ideas, communicate with isolated camp members and generally enjoy the fellowship of like-minded people.

If so, then contact me at:

The Department of Agriculture on telephone 27355 or at home on telephone 22388.

LIFE ON A FARM IN WALES (Part 1)

by Andrew Pollard

A common question I am asked in Wales is - How does farming in Wales compare to farming in the Falklands? The answer being simple. Not a lot. The only similarities that spring to mind are the long hours put in by farmers and the sheer ignorance of the sheep being handled.

Currently I am working on a farm in Mid Wales run by a family of two sons and their parents. Like most farms in this area they run cattle and sheep, of which there are 3000 ewes, 77 cows with calves. The total acreage of the farm is 1200.

On my arrival in Wales I landed straight in the deep end as it was lambing time. Mostly my work revolved around last years ewe lambs which were kept indoors. These ewes were mostly of a speckled breed although the introduction of Welsh Mule is slowly becoming more popular. A daily routine before breakfast involved giving the ewes silage and cake (nuts). After breakfast it was straight to the cattle sheds and onto the 25 year old Massey Ferguson tractor scraping muck. The youngest son Gerraint, also by tractor gave the cows silage and the calves were fed hay and cake. The last job was then spreading straw over the remaining muck. This process took an average of about an hour. Next it was down to the house for the cup of tea. After smoko, lambs and ewes were pulled from the main pens into individual pens. After a day in these pens the lambs were then marked by spray so that a ewe's lambs could easily be identified.

The lambs were also injected with calcium before they were loaded onto a trailer and taken by 4 wheeler to the appropriate outside fields. The afternoon was often spent moving sheep by lorry to other paddocks. Why by lorry you probably say? The farm consists of 4 small farms spread over a 20 mile radius with other farms in between. Once again in the evening the sheep are given cake and silage and the calves cake.

After lambing the next major job was crutching, followed by shearing. As there are no shearing sheds a good hour was wasted each day in setting up a trailer, specially designed for the job, which was towed by the landrover. My job was to gather and roll the wool, no skirting, just take off the dags and place in wool sacks, (The fleeces not being worth a lot as they comprised nearly 100% kemp). The ewes and lambs were then drenched, spray dipped and feet checked for foot rot. If they were contaminated with foot rot they were clipped.

As well as these main jobs, a lot of work is tractor orientated. Muck spreading, fertiliser spreading, re-seeding just to name a few. With these jobs my time is spent mostly spectating, as my abilities at tractor driving are so far steadily improving shall we say.

Another task is weed-spraying, nettles and docks. This is done by attaching a small sprayer onto the back of the A.T.V. This I must admit is probably my favourite job though probably not the safest. As well as the glamorous jobs there is still the endless cleaning of pens and vehicles, the cutting of grass around the house and sheds and continual tidying up.

On a social aspect Saturday nights are popular in town, with all the farmers gathering together, plus as it seems the endless amount of New Zealand shearers. There are also plenty of barn dances, which as with every where you go, can still provide the surprise of meeting up with another Falkland Islander, as I have found.

Well, I hope this should give an idea of farming elsewhere and in part 2 I hope to describe to you silage and hay making, selling lambs to market and the Royal Welsh Show.

ANIMAL WELFARE - THE WAY FORWARD

By Andrew Coe

In last months issue of the Wool Press I indicated that I would be outlining how I see the way forward in tackling some of those animal welfare issues that have long been talked about but have not yet been acted upon.

During the last three years a lot of work has been put into writing draft Codes of Welfare for farm animals, initially by my predecessor Ian Saunders and latterly by myself, both of us being assisted in this matter by Owen Summers. These draft codes are based largely on similar codes in force in Australia, New Zealand and the UK. I am of the opinion that they are practical in that they do not unduly restrict what is permissible practice on farms at the same time as providing a useful safety net to prevent obvious welfare abuse. I also believe that most good to average farmers will already be complying with most aspects of the codes in their normal farming practices and that only minor adjustments will be necessary in order to fully comply. There are a number of other farms where it is likely that more substantial changes in practice will need to be made.

The Welfare Codes are still in a draft form but I believe that there are some fairly black and white issues that are adequately covered by current legislation (The Protection of Animals Act 1911). I have discussed this matter with the Attorney General and I am of the opinion that we now need to move forward on those issues which I have outlined below.

Sheep

Castration and Tail Docking

This is a much discussed issue but it is my view that it should be possible to castrate and tail dock all lambs preferably before ten weeks of age and certainly before twenty weeks of age. Castration may be done either with a rubber ring, burdizzo, sharp knife or a method combining the use of a rubber ring plus burdizzo. Between ten and twenty weeks of age the combined rubber ring plus burdizzo method is preferred. Tails may be removed up to ten weeks of age by a rubber ring, ring plus burdizzo, ring plus cutting with a sharp knife, cutting with a sharp knife or a gas hot iron. From ten to twenty weeks of age they may be removed by the rubber ring plus sharp knife or a gas hot iron. The gas hot iron is the preferred method of tail removal at all ages.

After twenty weeks of age, tail docking will not be permitted except on medical grounds and castration will only be permitted with the use of local anaesthetic by persons who have undergone a training course given by the Veterinary Service. Naturally all farms will have a small (hopefully!) number of ram hoggs that turn up for shearing that need castrating. Equally, there will be some stud flock rams which are seen not to have made the stud ram grade at their first or second shearing. There are two options for these sheep. They can either be humanely slaughtered for dog meat or they can be castrated with a knife using local anaesthetic and an instrument called an emasculator. It is my intention that Caroline and I will hold training programmes at various centres on the East and West this coming Spring/Summer/Autumn to train farmers in the technique and the Veterinary Service has ordered a number of emasculators which we will loan out to farmers. What about the cost of this?. Essentially, local anaesthetic is very cheap and I would anticipate the cost will work out at about 35p per ram. I should be grateful if all farmers interested in attending such a course or who may be able to offer a suitable venue with a sufficient number of suitable rams, would contact us as soon as possible.

Shearing

Generally speaking, shearing with standard combs should be carried out between 15th October and 15th March. If cover combs are used then the shearing season can be extended from 15th September to 30th April. This should give farmers ample opportunity to shear their sheep when they want to in all but the most exceptional circumstances.

Shearing with standard combs before 15th October or after 15th March would not automatically lead to a prosecution, however if this practice is used and a large number of sheep died due to inclement weather, then papers would be presented to the Attorney General with a view to prosecution.

Dogs

It is my view that dogs should be given exercise under close supervision on a daily basis but it is not possible to enforce this under current legislation. It is also my view that dogs should have ad lib access to clean drinking water. Shelter in the form of a dry windproof kennel should be provided. They should obviously be adequately fed and a poorly fed dog could be said to be caused unnecessary suffering leading to prosecution under the Protection of Animals Act 1911.

Equally, I have from time to time, seen dogs kept in very dirty conditions. This is in contravention of Article 7 of The Hydatid Eradication (Dogs) Order 1981 which says that 'The owner or any person in charge of a dog shall ensure that it is kept in a proper state of health and cleanliness'. It is therefore my intention to take action in future cases of dogs kept in filthy conditions by presenting a report to the Attorney General with a view to prosecution.

Dogs left for extended periods of time when owners are away is a very difficult issue and all I can do is be completely honest as to how I see the situation. It is not just a question of providing adequate food and water to dogs in an owners absence. Dogs can get hung up on the netting by legs and collars if they wear them and when several dogs share a kennel it is not unheard of for a dog to be savaged to the point of death by its kennel mates. If such an event occurred and the dogs had been left unsupervised for four or five days, I do not think an owner would have a good defence against a charge of causing unnecessary suffering regardless of how much food and water had been left for the animals.

It is extremely difficult, perhaps foolhardy, to try and put a definite time scale on how long it is permissible to leave dogs. Suffice to say that I would feel uneasy if dogs were to be left unattended for a period of more than two nights and if a longer absence is planned then I believe arrangements for a 'farm sitter' or moving the dogs to a larger settlement for care and supervision is required.

Cattle

Castration

Rubber rings should only be used on calves up to one month of age. Up to six months of age castration can be carried out without the use of local anaesthetic by burdizzo, emasculator or sharp knife. After six months of age then local anaesthetic must be used and the person must have undergone a Veterinary training programme.

The six month limit without anaesthetic means that farmers must gather animals a minimum of twice a year in order to comply and it should not be too onerous to fit this in with other commitments such as sheep work.

Dehorning

Dehorning using a caustic paste can be carried out without anaesthetic during the first week of life. After one week of age all dehorning operations must be done using local anaesthetic.

Horses

In general, castration should only be carried out by a vet. This currently costs £40.00.

Those persons who wish to castrate their own horses and have the necessary experience and expertise should carry out the procedure under local anaesthetic after discussion with Caroline or myself on its correct use.

The purpose of writing this article is to give fair warning to all farmers of what I think is permissible and to explain what actions I intend to take if this advice is ignored and animals are in my opinion caused unnecessary suffering in contravention of The Protection of Animals Act 1911. I have discussed the matter with the Attorney General and we have agreed on the following:

1)Any allegation of persons acting against the advice in this article will be thoroughly investigated by the Veterinary Service.

2)If the allegations are found to be based on fact then we will present papers to the Attorney General who will decide if there is a case to be answered.

3) If the answer to the above is yes, the matter will be brought before the courts who will ultimately decide the outcome of the case.

I should like to stress now that it is not my desire or intention to see a lot of people prosecuted. I simply want to improve the welfare of farm animals to a practically attainable level that I consider is more humane and that I would be happy to defend if challenged by an International authority. By explaining this in detail and offering assistance, I hope to bring about this change in a constructive manner and in a spirit of co-operation. I ask for your wholehearted support.

If you have any comments on the above please contact me after I return from leave on October 3rd.

A YEAR IN THE LIFE OF A VET STUDENT

By Zoe Luxton

Did anyone watch the 'Vet School' programme on TV? All those students running around 'on call' and getting to wear gowns and wellies while doing exciting ops. on horses. Well, unfortunately life as a first year at the Royal Veterinary College is nothing like the life of a fifth year at Bristol Vet School. Things get more practical in my third year when I move out to the farm campus but, for this first year I was on dog walking duty rather than on call and the only gown I got to wear was my dressing gown while staggering to and from the shower at 7am every morning.

I did however, get to wear wellies. Every Thursday my entire year would get carted out to the college farm for animal husbandry classes. Lectures in the morning and animal handling after dinner. These handling classes usually involved ten vet students standing around gazing at a handler who was saying "Now- the best way to restrain a sheep is to place one hand on its back and the other firmly under its chin". Yeah - right!! This may be the way to restrain college sheep who are so tame they stand still all the time anyway, but try this method on an expectant ewe and you somehow find yourself being dragged around the barn with this poor little lamb staring back at you with a sort of ' do you mind, I'm TRYING to be born?!' look on it's face.

Unfortunately this mortifying experience really did happen while I was doing my lambing experience over Easter AND the farmer caught the moment on camcorder so everyone who visited the farm got treated to the video of 'our little vet student playing rugby with old Red tag 52!!' After three excellent weeks lambing it was hard to get back into the swing of going back to lectures rather than pleasant mornings bringing new lambs into the world. Learning the ins and outs of protein synthesis does not make you feel quite as vet-like as delivering a pair of muddled up twin lambs (although the farmers do this all the time without even blinking!). Dr David Tyler (DDT - old and loveable biochemistry lecturer) however, happens to think that protein synthesis is very important which is why you'll find me and fellow vet students poring over the third edition of 'The Molecular Biology of the Cell' every evening while frantically thinking "arrggghhh, I've still got that siology/pharmacology/anatomy to do before 9am tomorrow AND I promised so and so I'd meet them for a drink later.....!" Oh well, one year down, four to go and no sign of needing valium yet!.

EARLY SHORN WOOL'S

From Robert Hall, Falkland Wool Growers Ltd

At this time of year, many farmers are shearing "mutton" and "dogs-meat" sheep before killing them or shearing their skins soon afterwards. It is important that the quantities and range of staple lengths are recorded for each bale of Early Shorn (E/S) wool pressed and that these details are included on Bale Specifications when the bales are shipped to Britain. By definition, length is a critical factor in determining the use and value of these wool's; therefore maximising farm revenues and appropriate marketing requires good information as to each bale's contents. (Early shearing necessitates early record keeping!).

ADVICE ON TREE PLANTING.

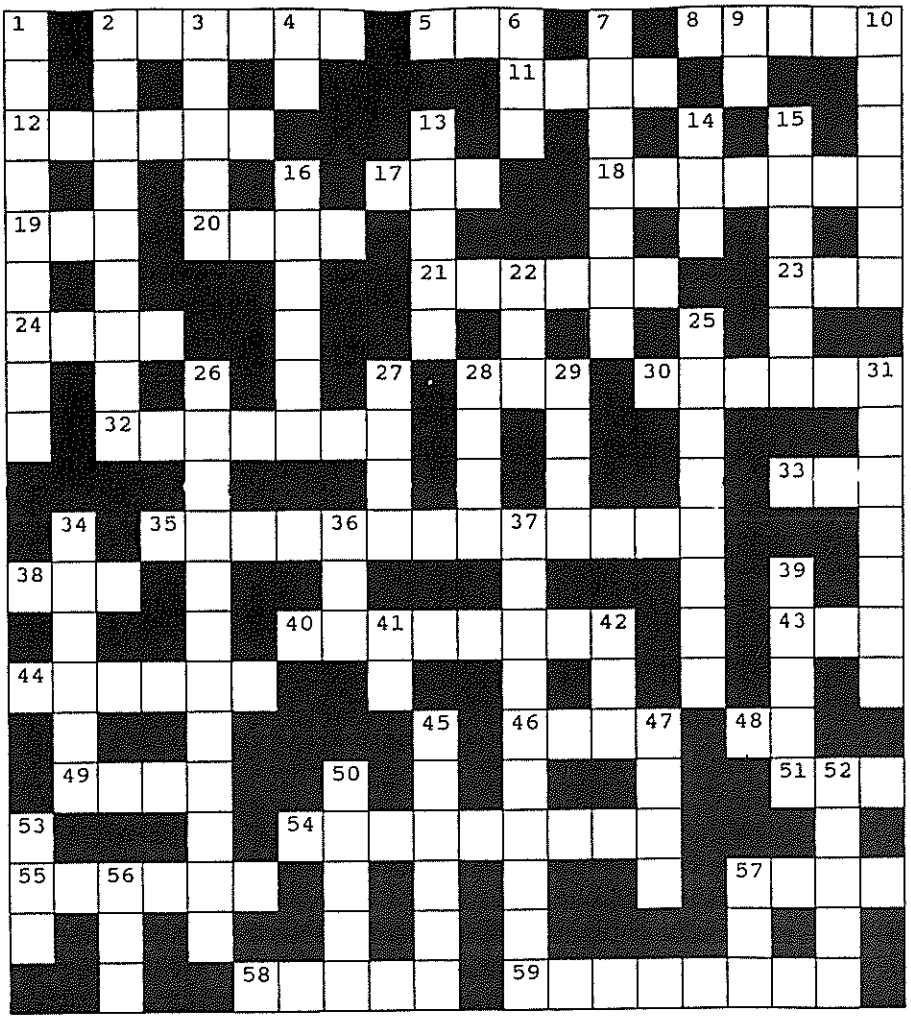
Dr Alan Low (D.o.A. Tree/Forestry Consultant) will visit the Falklands again from October 11th to 25th. The main purpose will be to inspect and advise on progress of shelterbelts at Saladero, Estancia, Shallow Harbour and Fitzroy.

He should have some time to visit a limited number of farms during this period to offer advice to anyone interested in tree planting.

If anyone is interesting in hosting Alan for this purpose, please get in touch with **Robert Coombe** (Forestry Assistant). Appointments will generally be made on a first come first served basis.

Please note that Alan will probably visit again in about April 1998 if this is more convenient.

SEPTEMBER CROSS WORD & CLUES



ACROSS

2. PLANT WITH ROOT NODULES
5. HEALTH SPRING
8. SORT SHEEP
11. POSITION STATIONARY CAR
12. RUGBY FOOTBALL
17. MALE SHEEP
18. POULTRY BREED-USUALLY WHITE
19. HARD WORKING INSECT
20. NIPPLE ON A BOTTLE
21. A VICIOUS ANIMAL
23. CHILEAN AIRLINE
24. WATER
28. CENTRE OF THE SOLAR SYSTEM
30. A BIRD THAT TALKS
32. WRITING FOR THE BLIND
33. A CAT DOES THIS TO DRINK
35. MILITARY COMPETITION
38. BADGER'S BURROW
40. FLIGHTLESS BIRDS
43. TO HAVE SOMETHING THAT IS YOURS
44. A SLANG WORD FOR A POLICEMAN
46. PLACE OF EMPLOYMENT
48. BEFORE NOON
49. AN INFORMAL WORD FOR YES
51. INTELLIGENCE OFFICER
54. TO TAKE SOMETHING ON
55. A DRINK AT SMOKO TIME
57. A CRUST ON A WOUND
58. TO FISH WITH A HOOK OR LINE
59. OFTEN THE CAUSE OF A RIDGE OF SHALLOW WATER

DOWN

1. JAM MADE FROM ORANGES
2. GLASS WITH AN ELECTRIC CURRENT
3. MEET AND WELCOME
4. MYSELF
6. PRIMATE
7. SET OF THREE BOOKS OR FILMS
9. SHORT FOR ROYAL ARTILLARY
10. A VEGETABLE FOR MAN AND COWS
13. A SMALL FLOWER WITH WHITE PETALS AND YELLOW CENTRE
14. WE FEEL THIS QUITE OFTEN
15. ANIMAL FEED (HAY)
16. INFORMAL
22. VISUAL DISPLAY UNIT
25. TO GO ON A HOLIDAY
26. FINANCIAL STATEMENT SHOWING ASSETS AND LIABILITIES
27. A MAKE OF TRACTOR
28. EQUIPMENT STORE
29. MR ARKS NAME
31. CALLED WHEN THE RAMS GO TO THE EWES
34. TUNE
36. SHADE
37. CAPRICORN, LADY ELIZABETH ETC.
39. SOIL WORKERS
41. DEFINITELY NOT
42. NOT MR BUT .....
45. WINTER FEED FROM CUT GRASSES
47. RETAIN POSSESSION OF
50. ITEM
52. LENGTH OF WOOD
53. NUMBER 1
56. A LONG WAY
57. WATER SURROUNDS THE WORLD

Compiled by Mandy McLeod

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IN THIS ISSUE:

PLUS ALL THE REGULAR FEATURES AND MORE!

The Wool Press is published by the Department of Agriculture. Editor: Mrs Charlene Rowland.

EDITORIAL

By now all farmers and the general public should have received an Information Leaflet on the Department of Agriculture. This leaflet was printed to inform you of who does what in the department. Hopefully you will find it very helpful if you have a query or problem and you don't know who to contact.

Later on in the month, the Department should have the 1996/97 Annual Report printed which will give you all the relevant information of what the goals and objectives have been over the past years.

Owen has arrived back from his Study Tour trip around Australia and New Zealand. I believe he will be giving a talk on his travel later on. Andrew Coe and his family will also be arriving back home from leave next week.

The Farming Statistics were sent out early on in the month. There were three mistakes made: Main Point's total wool clip should have read 19,997 and not 16,662 and Many Branch Farm's cattle should of been 30 and not 52, and the last one was Sheep Shorn total on the West Falkland which should of been 248,925.

CAPTION (Wool Press 74)

After a long decision we decided that a Shakespear (Othello I.1.88) caption was the winner : Nigel Knight will be receiving a bag of fertiliser in due course.

"Even now, very now, an old black ram is tupping your white ewe"

Other captions were:

"Kiss me Arthur"
"Your nose hair could do with some trimming".
"He's no too bad!"
"After eye locking me, I still can't see"
The N.S.F team "Head and shoulders above the rest".
"Shepherd and sheep "Facing the future together"
Polwarth partnership " Keeping ahead of the competition"
"Rhoda you've changed!"
Two essential camp components " Shepherds and sheep"
"I smell 'Lambs'
"Kiss me hardy"
"Och, keep still it'll no hurt"
"Come into my arms you bundle of charm, and I'll show you where I'm tattooed"
"What's your pedigree then mate?"

Thank you to all those people who submitted a caption.

THIS MONTHS CONTRIBUTORS

Sean Miller	Sheep Husbandry Officer, DoA	Gordon Lennie	Laboratory Technician, DoA
Lyn Blake	Farmer/Owner, Little Chartres Farm	Aidan Kerr	Senior Scientist, DoA.
Doug Cartridge	Wool Adviser, DoA.	Robert Hall	Falkland Wool Growers Ltd.
Robin Thompson	Beef Specialist, DoA.	Bob Reid	Director of Agriculture, DoA.
Mandy McLeod	Farm Management/Training Officer, DoA.	Caroline Lamb	Veterinary Officer, DoA.

WOOL TESTING

By Doug Cartridge

We are pleased to advise that all micron and yield testing carried out for the 1997/98 season will be ***free of charge*** **if greasy fleece weights are supplied with samples**. The service has a great deal to offer the farming community in our joint aim of increasing wool production. Fleece weighing **must** be used in conjunction with testing to provide meaningful selection data.

We expect to receive a great deal more samples this season, this may cause delays in receiving results at peak times but we will endeavour to get the information to you as soon as we can. It would be helpful if you could contact us over the next month to advise how many samples you intend to send in so we can arrange for temporary staff (if required) to assist with the preparation of samples.

Remember:

Weigh fleeces and your wool testing will be free.

Phone us now to indicate the number of samples.

FUTURE RAM POWER

By Robert Hall, Falkland Wool Growers

Increasing "income per sheep" is a major objective of farms throughout the Falklands, as it enables greater wool returns for a given stocking rate.

Greater "income per sheep" is targeted by selective breeding from ewes and more easily from rams, which have combinations of heavier fleeces and finer fibre diameter readings. Given the importance of this inheritable information to future farm incomes, a potentially valuable target for all farms is the "RAM 2000" proposal.

Ram 2000 suggested two years ago in WOOL PRESS 71 that **"All rams used in the Islands be of known hoggets or shearling fleece weight and objectively tested fibre diameter, by the year 2000".** Many farms breeding their own rams will already have these and more measurements for the rams they ultimately select for use. Those farms that do not take such measurements to assist ram selection, would profit from collecting such data during next shearing season. Whilst weighing fleeces and collecting mid-side samples is not everyone's idea of fun, they provide extremely valuable base-line information, which greatly assist visual selection's decision making (and if required, are necessary inputs into computer programmes generating selection indices).

Farmers buying in either stud or flock rams should expect ram breeders to provide such important information for all rams on sale, as a matter of course.

The mid-side sample wool testing service together with a fleece weigh-scale offer ram breeders an excellent opportunity for the next century, however full preparatory work needs to be undertaken across the Islands as soon as possible. The sampling and weighing of all ram hogget fleeces this season, will ensure that farmers have good information about rams, that will have a significant influence on their ewe flocks.

Ram 2000 will help develop Future Ram Power.

TROUBLE WITH TWINS?

By Sean Miller

With lambs already dropping like flies, and more on the way, should or shouldn't we be hoping for twins in the flock? Certainly a controversial subject throughout the world in these so-called *rangeland* conditions, not just in the Falklands. Without doubt, twins are a great boost to marking percentages, but are they more trouble than they are worth? The following article was printed in a similar farming newsletter, *The Mulga Line*, in Australia recently, and details the results of research conducted in areas of Australia where poor feed and climatic extremes are not unlike those here.

Farmers feel that twins have lower survival and production rates whilst ewes rearing twins require more feed. Let's look at these arguments.

* *lower survival rates - recent observations from Western Australia and Queensland suggest that 85% of single lambs survive compared with 70% of twins. So yes, the twins do have a lower survival rate. But, if you look a little more closely you will find that 100 single bearing ewes raise only 85 lambs whilst 100 twin bearing ewes raise 140 lambs. A 65% increase in the number of lambs raised from the same number of ewes. Not bad for lambs which prejudice would suggest have death as their greatest ambition.*

* *lower production - popular opinion suggests that the tail of the mob are all twins. This is not true. In one flock, 33% of the lambs were twins. At 18 months, about 20% of all the singles and 30% of all the twins in the mob were in the tail. Most twins were not in the tail and were comparable to the average single. Records show that the average twin produces only 4% less wool than the average single at 18 months of age.*

* *more feed - this is true. Ewes rearing twins have feed requirements 20 to 30% higher than ewes with a single. However, fewer ewes are required to produce the same number of lambs in flocks rearing a large percentage of twins. These ewes can thus be given a little more room.*

To summarise:
* *twins are essential to good lamb marking percentages*
* *Most twins are as productive as comparable singles, and*
* *fewer ewes are required to produce the same number or more lambs so the requirement for increased feed can be managed.'*

The question to ask is thus; do these results also occur in the Falklands? Part 4 of the series on previous sheep research (see later in this issue of the *Wool Press*) looks at part of this question, so turn over and read on.

Quote from Susie Hansen of Main Point Farm

'Nothing is impossible for the man that doesn't have to do it himself.'

SHEEP, TREES AND WHALE MEAT IN THE FAROE ISLANDS. (PART 1)

By Bob Reid

The climate is very windy, the temperatures are usually cool, the soils are peaty and acid there are no naturally occurring trees, theres lots of poor grassland, sheep, sea birds, offshore fishing and possibly oil. No this is not a description of the Falklands but of the Faroe Islands. Before you rush for your atlas the Faroes lie halfway between the Shetland Islands and Iceland, at latitude 62°, in the North Atlantic, and are considered by many to be our equivalent in the Northern Hemisphere.

The Faroes are made up of 18 Islands and cover an area of 139,600 Ha (545 sq. miles) - *compared to the Falklands 1.2 million Ha.* The population is around 44,000 with 15,000 in the capital city, Torshavn, and the Islands have been settled since around 700 A.D. The population of the Faroe Islands tripled in the 19th Century and tripled again this Century. The fen accounts on earlier centuries indicate that the population remained relatively stable at some 4,000 inhabitants for nearly a thousand years. The rapid increase of the past two centuries was caused by a transformation in the economic base in which the stable Faroese farming society (sheep based) changed to a farming - fishing society through the exploitation of the rich resources of the surrounding sea. This was followed by a revolution in manufacturing; with new production techniques, improvement in transport and communications, new cultural habits and better health and sanitation. The majority of the settlers came from Western Norway and until the end of the WWII were governed as a Danish colony. Since 1948 the Faroes have been self governing with defence and foreign affairs being directed by Denmark. The language is Faroese, but Danish and English are understood by most of the population.

Why did I go there? Essentially three things attracted me, namely the Faroese had a long standing (70 years) tree and shrub shelterbelt evaluation programme, the Islands had been grazed by sheep for over 1,000 years and therefore there would be some plants of interest for the Falklands, and the local delicacy was air-dried mutton, with the potential for a market for our sheep meat.

Firstly the trees and shrubs. The Faroese have deliberately sought out and evaluated a huge range of plants. In the early days material came from Britain and Denmark but more recently there have been missions to South America and Alaska to collect seed and plants from more exposed and maritime sites. Besides a small (and very well run) nursery the Faroese Government, through its forestry section, has established tree and shrub plantations throughout the Islands. These plantations are invariably sited within or immediately adjacent to any town or village that is prepared to help with their upkeep, and are also used as recreational areas.

Besides seeing first hand which species have stood the test of time, two other important items were noted. Virtually every plantation was preceded by a couple of years of shrub planting both in the perimeter and in the body of the plantation, and every planting had secure, sheep proof fences.

The Faroes are somewhat wetter than the Falklands and so there are bound to be some differences in long term species survival. Also I suspect we are "windier" in the spring and summer, nevertheless their plantings have endured prolonged exposure to wind and salt in exposed areas. In December 1988 a violent storm whose maximum recorded windspeed was 270 KPH (before the anemometer broke) caused widespread damage in the Faroes and many of the older plantations were severely damaged and it is safe to say that those species/provenances that survived that event are worth trialing here in the Falklands.

Herewith are a few brief comments on some of the outstanding species.

Alnus sinuata "**Sitka Alder**" - perhaps the most successful small tree, introduced in 1956, especially for pioneer/shelterbelt purposes. It is able to fix nitrogen and will tolerate wind and salt. Widely planted in woodlands, amenity and private gardens.

Nothofagus antartica - much material from Tierra Del Fuego planted in woodlands and gardens. It grows on a wide range of soils, including bog-margins and gravel.

Nothofagus betuloides - also from Tierra Del Fuego and often develops a multi-stemmed shrubby form. Evergreen and performs well in the shade of taller trees. Some good specimens seen on boggy soil.

Populus trichocarpa "**Black Cottonwood**" - widely planted fast growing tree from coastal Alaska. Propagated by cuttings and does very well in wet ground.

Picea sitchensis "**Sitka Spruce**" - long planted in the Faroes and many mature plants to be seen. Much of the early material came from British Columbia and Washington but more recent plantings of Alaskan material look even more promising and exhibit resistance to spruce aphid.

Pinus contorta "**Shore Pine**" - as successful in the Faroes as in the Falklands. More recently S.E. Alaska origins have proved to be successful rather than the material from British Columbia and Washington.

Pinus sylvestris "**Scots Pine**" - perhaps surprisingly, this shows a lot of promise on exposed sites. It is all a matter of seed source and the best material comes from coastal Norway rather than Scotland.

Amongst the shrubs, there are not only some very familiar species such as *Fuchsia magellanica* and *Hebe odora*, but also some completely new species (at least to me!!)

Berberis ilicifolia "**Holly-leaved Barberry**" - is a prickly leaved shrub from Tierra Del Fuego which grows to about 2m. It is very wind resistant, grows on most soils and is widely planted as an initial shelter plant.

Buddleia globosa "**Orange Ball Shrub**" - also from Tierra Del Fuego, this shrub grows fast, flowers in mid-summer and is of great ornamental value. It is very wind resistant. (I noted this species was much used on exposed coastal sites in Britain).

Salix alaxensis "**Feltleaf Willow**" - only recently introduced into the Faroes from Iceland, from whence it originally came from Alaska. It is highly promising as a fast growing shelter species, easily propagated from cuttings and well adapted to wet boggy areas. (note - this species is being used as sheep fodder in Iceland.)

Salix phylicifolia "**Tea-Leaf Willow**" - widely planted in gardens, and in amenity plantings, e.g. clumps on roadside banks. Usually takes a shrubby form and grows in the most exposed sites.

- And in passing it was pleasing to see that one of the most successful and widely planted shelter plants was our own well known **"Fachine"** (*Chiliotrichum diffusum).* Sourced from Tierra Del Fuego, and propagated by cuttings it was first introduced in 1972. There are now hundreds of thousands planted for shelter, roadside beautification, bank stabilisation and garden ornament, and no-one knew it also came from the Falklands.

Arrangements are underway for the Department of Agriculture to import both cuttings and seed of this exciting material and with luck we will be able to get it distributed widely over the next couple of years.

UPS AND DOWNS

By Lyn Blake, Little Chartres Farm.

Isn't it amazing how one can feel ten feet tall for no other reason than the sun is shining? The family still needs to be fed, there are dishes to be done and washing to be hung out, but all of a sudden you find a stranger in your skin, someone is there who is humming a funny noise and bustling about doing the daily tasks.

The muddy door-step which usually makes you vow and declare war on everyone only needs a quick slopping down and a once over with the hard broom. Trudging out to feed the hens and dogs, just a breeze and an hour slips by while you find some fresh veg and check out some cuttings that have been under snow and slush for weeks. There are no roses as such in the garden but that old song starts up in your dim memory and you have to smile.

Me suffer from SAD? I don't think so, but then I wonder if there is an opposite to Seasonally Affected Disorder? Maybe that is what I have! HOODOSS! I wonder if the medical world would buy that, High On One Day Of Sun Shine, and how would they treat it?

QUALITY ASSURANCE SCHEMES - Their Origins and Uses.

By Lyn Blake, Little Chartres Farm

The formal quality movement is believed to have had its origin more than fifty years ago during World War Two. The Hawthorne experiment carried out by General Electric was an attempt to measure the level of lighting in the workplace and relate it to the quality of acceptable output from each production shift. The term 'Standard Management' was used during 1930-1950 to describe production planning and controls which were gradually developed and introduced into factories and services. Some products lend themselves more easily than others to inspection and testing e.g. munitions versus concrete. There is as much need for quality control the inputs and the material- in our case raw wool, as there is of the outputs - the processing. Processing costs are fixed whether faulty or quality materials are used. However, finished products made from faulty materials maybe unsaleable increasing the risk of financial loss.

During the reconstruction of the Japanese economy after the Second World War it was realised that the quality of goods needed to be vastly improved and two Americans, Deming and Juran were invited to give a series of lectures which spearheaded the introduction of improved quality throughout Japanese industry. It is also worth noting that this was done without the need to set up departments whose sole function was to control the quality systems. Rather it was done by the adoption of each aspect of quality being a fundamental part of each employee's responsibility. The Japanese experience can be summarised as the recognition that *real* quality is achieved through commitment to the task *at all levels*. Juran listed other points that are as applicable to Japanese industry as they are to the wool industry here in the Falklands.

He believed that management must be trained, that management must be actively involved, that the business plan must include quality goals, and that assessment and improvement be an ongoing processes year after year. Measures should be evolved to enable management to follow the progress of parameters such as customer satisfaction, competitive quality, performance of the business, cost of poor quality and so on. He advocated a reward system to take account of the changes in job functions and responsibility. (As you read this I hope you will be thinking of how, where or indeed if any of this applies to you, to us, or The Quality Falkland Wool Assurance Scheme).

Japanese industry has largely followed this outline and the rest of the world is trying hard to follow suit. There is a wide range of formal procedures now established originating from work by Deming and Juran. Schemes have been modified and adapted by a variety of countries for a variety of products, services and circumstances, but the common reference point they all have is that they are a guide for the adoption of a system that gives a check list of functions to be addressed. Because of the number of quality systems operating world-wide (one only had to look at those in the wool industry) the result has been the formation of two camps, the believers and the sceptics, and within each camp there are extremist views. Problems and criticisms sighted in industry are the same as we discuss here with the Quality Falkland Wool accreditation scheme.

Management: Participation of management *with* the workforce is the essence of success.

Education: Each individual will react differently to training, but opportunity must be available. The magical idea of 'get a book and read it' (Guide to Clip Preparation and the QFW checklists) will only help if action follows.

***Definition*:** Identification of the area to which a standard is being applied must be clear (e.g. removal of stain).

Purchasers: Purchasers often use unnecessary requirements for quality certification as a measure to reduce their own risk or workload. (Quote "contamination was throughout the Falklands delivery from 14 farms across the whole of the Falkland Islands").

Consultants: Poor regulation of the quality industry has allowed consultants to develop the illusion of difficulty, which only *they* can solve.

Complexity: It is unwise to set up a complex bureaucratic system under the guise of improving quality. (This role of inspection undertaken by the Department of Agriculture in the QFW scheme is particularly suitable, it is an uncomplicated procedure, they are an independent body - there is no commercial interest as they are not buyers or brokers).

After all these points there are a further two which perhaps take up even more time. That is the debate on the cost of implementing schemes, and the problems of a scheme failing to produce the promised, or hoped for, returns. However for all these complaints there is a ready army of enterprises who are eager to raise evidence in rebuttal. This is well documented in industry and I have high hopes for Quality Falkland Wool.

The Way Forward for Quality Falkland Wool.

The key to success lies in having a good understanding of *what* is to be achieved, *how* it can be achieved and *why*.

Knowledge Acquisition
Find out what the QFW scheme is about, what is requires of you, and what it has to offer. This is best done by reading **The Guide to Clip Preparation** and the QFW checklists, by talking to farmers who are already accredited, and to personnel at the Department of Agriculture.

Know Your Product - Know Your Wool
Think about what affects the quality of your wool. List the good points, list points you are unhappy with. Try to think of practical things to do.

Implementation
Set yourself achievable objectives. Look at the resources needed. Consider the costs in time and money. Estimate the likely returns; monetary, survival in the market place, and job satisfaction.

EVERY RISE IN THE QUALITY OF THE WORK
MEN AND WOMEN DO
IS FOLLOWED SWIFTLY AND INEVITABLY
BY A RISE IN
THE QUALITY OF THE MEN AND WOMEN WHO DO IT.

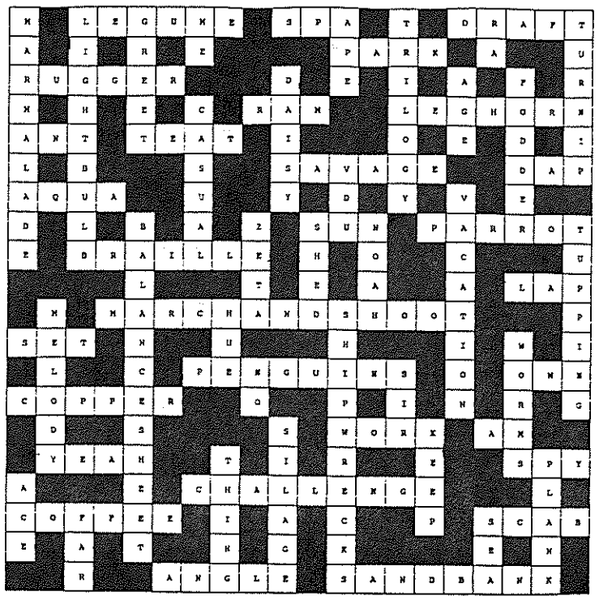
THE

SOLUTION

TO

SEPTEMBERS

CROSS WORD



AGRICULTURAL TRAINING SCHEME COMPUTER COURSE

by Mandy McLeod

During this last school holiday, I took advantage of the facilities offered at FICS and booked the use of the computer suite for six days, during which time I ran two courses of three days duration.

The aim of the course was to introduce the WINDOWS environment to interested people, and to show just what a computer can do for farmers in the Falklands. I also wanted people to lose their fear of computers and feel a bit more confident in using them by showing them how to make copies of files and store their files efficiently for easy retrieval.

The first day was a nightmare for most people I think because there seemed to be so much information to take in just to get around WINDOWS, let alone produce anything. I assured everyone that things would get better... ...and they did.

By the third day multi coloured graphs were being churned out showing cash flow situations, lambing percentages, stocking rates to camps, etc., with the information all being taken from spreadsheets created by the 'students'.

We also looked at basic word processing and making an address cardfile. There was so much that we didn't do due to the time constraint, but I am sure that everyone came away from the course with more confidence. I really had to restrict the learning to things that I thought would be most useful.

For farmers who use the Account Books 1, 2 &3 published by the Department of Agriculture, we had a look at the system on the computer (quite impressive - no more adding up to do!). This will hopefully be available to farmers in the near future, when it has been tidied up and made a bit more user friendly by protecting certain formulated areas of the spreadsheets.

There were 18 people in total from all corners of the Islands. For my part, I can say that I enjoyed it very much and, judging by the laughs we had at times, I think that the participants did too.

I will run another similar course again next winter if there is enough interest, and may even do a follow on to this one for the 'not total beginner'.

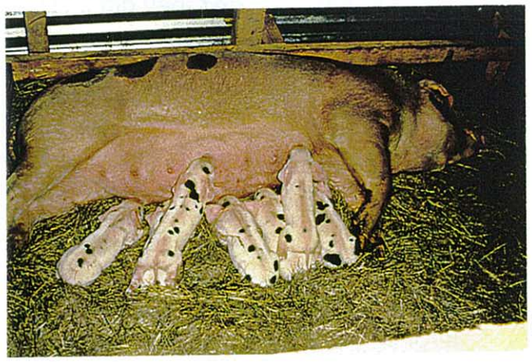
PEBBLE ISLAND PIGS

by Mandy McLeod

Early in the year, 17 pigs were imported into the Islands from Britain. They came from a farm in Devon that specialised in rare and traditional breeds. These were chosen rather than the modern breeds because they would be run outdoors and they are generally better for that system. This is probably because they have not been 'genetically improved', for which a price is paid. For instance, in improving carcass quality, other features more valuable to here may have been lost, such as good mothering ability and hardiness.

The breeds that came to the Falklands in the shipment were Saddle-backs, Gloucester Old Spots, Large White, Large Black and Welsh. Twelve of the pigs were for Raymond Evans and were destined for Pebble Island.

The two breeds of pig that went to Pebble Island were Gloucester Old Spots and Saddlebacks. There were five gilts and one boar of each breed. As you can see, they all arrived fit and healthy and seem to be settling well into their new environment.



Pigs are very sociable animals and mix well. In fact they were a bit too sociable on the way down here on the boat. This little lot above is the result! This is the sows first litter and she is a very good mother. She produced 8 piglets. It is better in many ways that the litter is not too big. This reduces the competition for milk and therefore give the piglets a good start. The litter size will probably increase as she has more. 10 or 12 is a good number for a sow to care for if a 6 week weaning period is intended.

As you can see, they are quite happy and content and enjoy the comforts of their special pig houses. Some of the arks are insulated for the younger animals and sows with piglets. The larger animals snuggle together and keep warm in larger houses. There is also a nissen hut that has been converted into a multi-sow farrowing house, especially for winter use. After the first few critical days the sow and piglets can progress to an insulated ark outside if the indoor pen space is needed. There is an automatic watering system in place so all animals use nipple drinkers. They are confined to paddocks with portable electric fencing. Pigs are very respectful of electric fences because they do not have a good covering of hair or wool like cattle and sheep. The cold weather does not seem to have bothered them at all this winter and their condition is good.

The boars have done their duty and several litters are due within the next month. The herd will be increased to 20 plus breeding sows. The main pork animals will be cross-breeds, although a pure nucleus of both breeds is being kept as well.

By next February / March, there should be a steady flow of pork into the market.

THE DIGESTIBILITY OF GRASSES AND IT'S IMPORTANCE TO LIVESTOCK.

by Gordon Lennie

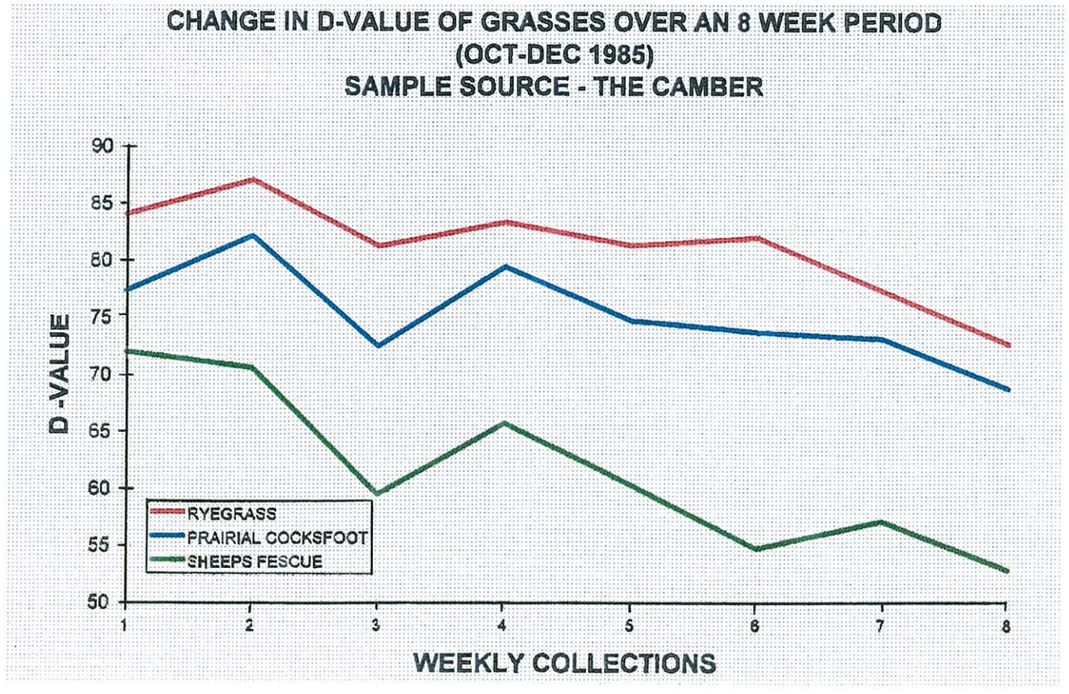
When we talk of Digestibility Values in forages this is defined simply as the percentage of food absorbed by the animal during the digestion process. Grasses typically have their highest Digestibility Values when they are at a young leafy stage of growth. As grasses mature and become stemmier their digestibility decreases and their corresponding feed value is reduced. The important agricultural grasses such as Perennial ryegrass and Timothy are selected for reseeds because of their high Digestibility Value (around 85%).

The more nutritious native grasses in the Falklands such as bents, tussock, fescues and meadow grasses can attain values as high as 65-70% digestibility. This is one of the reasons why Falklands sheep show a greater preference to these types of grasses.

The Whitegrass pasture which covers the greatest part of the Falklands 'camp' has a low Digestibility Value of around 40%. This is similar to values found in many straws which are high in fibre. Sheep are however good at digesting high fibre material such as Whitegrass. The main drawback to the sheep is the slower rate of passage of the grass through it's stomach. The intake of low digestibility grasses also has the effect of reducing the daily amount of feed a sheep can consume.

The digestibility of feeds can be measured in the laboratory by means of a two-stage invitro incubation method. The term 'invitro' relates to the biological process, in this case digestion, which is carried out in an artificial environment. Finely ground samples of feeds are weighed into testubes and treated with a buffered rumen liquor mixture for 48 hours and then a further 48 hours with a pepsin enzyme solution. These treatments are applied to simulate the passage of feed through the digestive system of the animal. By analysis of the insoluble (undigested) material collected after filtering, and comparison with known standards, the Digestibility Value can be accurately estimated. This technique is widely used today in the analyses of herbages and concentrates .

The graph below demonstrates the difference in digestibility of three grass types. It also shows the changes in digestibility over an 8 week growing period. The information source is from a former Department of Agriculture trial at the Camber.

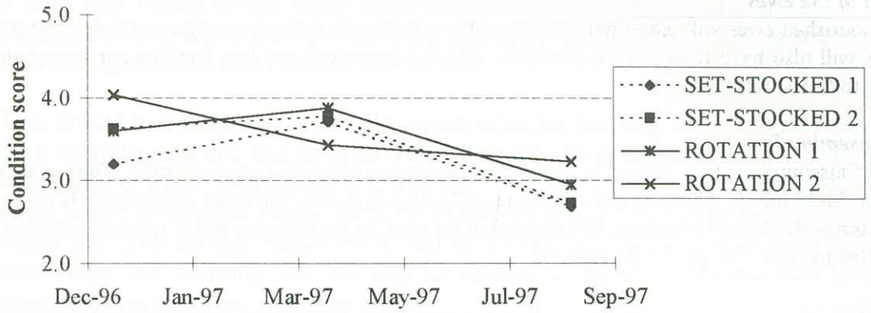


PROGRESS IN THE GRAZING SYSTEMS TRIAL.

By Aidan Kerr

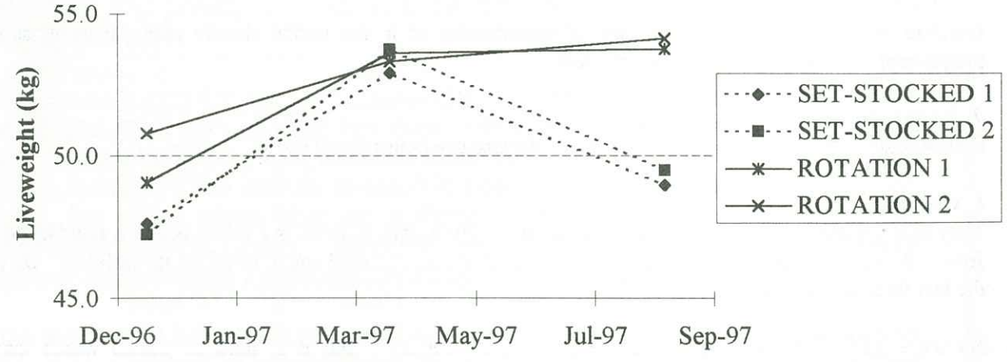
From shearing in December to weighing and condition scoring in mid-April 1997 'rotation' wethers were stocked at about 0.6 acres per sheep in their 'summer' camp. This camp had been rested from grazing since April 1996. From mid-April 1997 until early September they were stocked at about 2 acres per sheep in their 'winter' camp. Weighing and condition scoring was conducted again. Set-stocked wethers were kept in the same camp all year at 2.6 acres per sheep.

Sheep condition 1996-97



The overall weight and condition results are shown in the graphs. Although the full statistical analyses are still to be done the trends are similar to those of last year. 'Rotation' sheep did not perform as well as set-stocked sheep between December and April, but they had similar weights in April. However, they performed better over winter and were on average about 4.5 kg heavier in early September. About 1-2% more 'rotation' sheep either died, usually in ditches, or were 'missing'. Dead sheep were replaced soon after being found.

Sheep liveweights 1996-97



Like last year I hope the better performance of the 'rotation' sheep over winter will result in superior fleece weights and fibre strength at shearing in December. ***Watch this space!***

If any farmer has any queries about the trial's progress or would like to visit the site please contact Aidan.

ARTIFICIAL INSEMINATION

By Caroline Lamb

In the 1996 season 3 farms were visited with a total of 40 ewes inseminated.

The outcome was varied with lambing percentages of 10%, 40% and 75% resulting. Obviously the 10% result was disappointing to both the farmer and the Veterinary Department and the numerous factors that could have contributed are discussed below.

1. ***Number of normal viable spermatozoa.***
This depends on the storage state. The cylinders had been regularly topped up with liquid Nitrogen and the semen looked to have considerable motility when examined under the microscope.

2. ***Condition of the ewes.***
Sick or malnourished ewes will either not ovulate or have increased embryo mortality. On the opposite side, overfat ewes will also have reproductive disorders. On the farm with the low lambing percentage the ewes were tending to be too fat.

3. ***Time of insemination.***
The timing of insemination with respect to the time at which ovulation occurs is critical. While ewes may be in oestrus for 24-42 hours, ovulation normally occurs 25-30 hours after the onset of oestrus. If the ewes are inseminated too early (before ovulation) the sperm will be dead by the time the egg is released, whereas if they are inseminated too late, the egg is not receptive.

With the current programme we inseminate at 50 hours past CIDR withdrawal as is recommended. If we have poor results this season it may be worth delaying insemination another 2-3 hours, or alternatively using harnessed, 'primed', wethers to detect when the ewes come into heat.

4. ***Technique***
The inseminator's experience will have an effect on the outcome. Strangely, the 10% lambing occurred on the last farm to be done last season - when the inseminator had some practice!

5. ***Ewe age***
Maidens may have slightly lower fertility than older ewes.

6. ***Stress***
Careless or rough handling at the time of insemination or in the period shortly after (at establishment of pregnancy) can result in early embryonic loss.

7. ***Foetal Mortality***
Severe weather conditions, lack of nutrition or disease can cause foetal death.

8. ***Climate***
Very cold weather on the day of insemination may play a part. If there is a delay between moving the semen from the water bath and putting it into the ewe there is time for cold shock to affect its viability. On the day the last farm was visited last year it was snowing.

So there are a number of possible causes for poor results - and it is hard to decide which may have contributed.

The 1997 season was considerably more extensive. We visited 15 settlements (8 East, 3 West, 4 Islands) and inseminated a total of 174 ewes from 17 farms. The programme seemed to go smoothly, with only minor hiccups and no major disasters. Unfortunately we managed to break one of our endoscopes and that will have to be replaced before next year. Most of the ewes were in fair to good condition and it will be interesting to see the results and see if there is any correlation with the fatness of the ewes or the weather on the day.

CAMP FIRES

by Mandy McLeod

It is coming up to that time of year again when we see smoke on the horizon and can smell it in the air - yes, camp fires! Some are negligently caused by a cigarette, or some other unintentional means, but some are lit by farmers as a method of 'grassland control'.

The practice of camp burning has been happening for many years. Once upon a time just about every farm burnt their camp intentionally to 'sweep' off the dead grass and allow the new spring grasses to come through. However, not all farmers agree with this method any longer.

This article has not been written to argue whether burning is or is not acceptable as a farming method, but to urge those that do still practice camp burning to be respectful of their neighbours and their farming methods. However, when there is so much emphasis these days on conservation, both locally and globally, it might not only be the neighbours that don't like it. Burning your own camp is one thing, but allowing the burning to spread to someone else's land through negligence is another matter entirely.

I though that the following information may be informative to everyone in relation to CAMP FIRES and your legal position.

In 1955 the Grass Fires Ordinance was enacted by the Legislature of the Falkland Islands. It states that if any person wilfully or negligently and without lawful authority, sets on fire any vegetation on land of which he or she is not the owner or occupier, shall be guilty of an offence. Any person wilfully or negligently kindling a fire, which by spreading causes damage or destroys the property or vegetation on the land of any other person, shall also be guilty of an offence. The penalty for which is a fine of up to £50 and / or up to 6 months imprisonment.

It goes on to say that every person, before proceeding to burn vegetation on his own land must give at least two days notice of his intentions to all owners or occupiers of adjoining land which is within ½ mile of the area which is intended to be burnt. If a fire lawfully kindled (lit after giving notice) spreads to adjoining land, the notice given shall be sufficient defence to any charge under this ordinance (Crown Court). However, that does not mean that a neighbour cannot make a claim for damages through the Civil Court.

On that note, I would just like to advise caution if you intend to continue burning camp as a method of grassland management and control. Remember, the wind can get up and change direction pretty quick, then the word 'control' becomes redundant, and replacement fencing is not cheap if you're looking at damages costs!

UP DATE ON BEEF PROGRAMME

By Robin Thompson

The last month has been a busy one for this programme with the following achievements.

Our portable cattle yards were completed thanks to a determined effort by Mike Evans. We took the pens to Port Stephens where we used them for the first time to make a holding yard and race down the jetty. Thankfully they worked well and are relatively easy to erect despite the individual panels being heavy. One oversight is that small calves can escape through the bottom rails but we plan to do a modification to overcome this. We have 54 panels capable of providing about 135 metres of fencing. This resource will be available for use particularly in conjunction with transport and management activities.

With the aid of the Tamar FI and her crew we managed to ship 73 cattle from Port Stephens to Goose Green and Stanley. These animals came from Albemarle, South Harbour and Port Edgar. The grown steers were used by the butchery and the females have become part of the National Beef Herd. This brings the number of grown females in the National Herd to about 90. Seventeen of these cows have successfully calved due to being mated at the time of purchase. The animals are well behaved and are currently located on the southern half of Brenton Loch.

Construction of the permanent cattle yards has started. The Public Works Department and Land Holdings staff from Goose Green helped to construct a burrow pit and cart gravel to form the foundation for the yards. All the timber is on site and construction has commenced with the assistance of Rex McKay and Gary McGill.

Towards the end of the month we hope to relocate the cattle from Kepple Island to Brenton Loch. Although this may be a challenge our previous experience with using the Tamar F.I., deck matting and portable yards should enable us to successfully meet it.

We have just established a trial with the aim of determining whether there is a response to applying nitrogen fertiliser to greens in early spring. We need to know this because it may be a means of providing more food for calving cows and lambing ewes. The trial is located at Saladero and has seven rates (0, 10, 20, 30, 40, 50, 60 Kg/ha) of applied nitrogen. There are four replicates of each treatment so we have a good chance of finding a response if there is one. The first harvest is due in early October so as they say 'watch this space'!

REPRODUCTIVE CAPACITY OF FALKAND ISLANDS EWES

(Sheep Research part 4) *By Sean Miller*

The previous article (*Troubles with twins*) is a great lead-in to the fourth part of the story of sheep research in the Falklands. Just how many ewes get pregnant in the Falklands, how many carry twins, and how many actually give birth? Steve Whitley began the search for answers to these questions during the late 1970s. His answers, and those subsequently provided during the extensive survey carried out in 1987 in which more than 7500 ewes were 'scanned' (using an ultra-sound scanning machine, very similar to the one used for humans) both make for interesting reading.

The first point of note is that locally, the breed of ewe has very little effect on the number of pregnancies within a flock, and the potential lambing rate (number of singles and twins). Far more importantly, the bodyweight of the ewe determines whether she gets pregnant, and whether she carries more than one lamb. Based on Falkland Islands' data, the following table summarises the potential performance of ewes.

Relationship between ewe liveweight and reproductive performance

	Condition Score			
	<1 (Poor)	2 - 2.5 (Average)	3.5 (Good)	>4 (Excellent)
Barren ewes (%)	20	8	6	2
Twins (%)	0	2	3	26
Potential lambing (%)	80	94	97	124

Although this data demonstrates the potential for ewes to achieve high reproductive rates, in practice the rate of pregnancies for commercial flocks in the Falklands is much lower. The scanning exercise in 1987 indicated that most ewes do get in lamb (91% to 99%), but very few actually conceive twins (1% to 6%). Thus, twins are actually rare. Nevertheless, the potential lambing rate of the average Falkland Islands flock is 100% - a lamb for every ewe.

In addition, the work to date also indicates that nearly all ewes carry their lambs for the full term and give birth. Thus, factors following birth (mis-mothering, hypothermia, malnutrition etc.) account for the often low survival rates of young sheep.

So, can we answer the questions on twins posed earlier?

* *lower survival rates* - we don't have any data from commercial flocks to suggest that twins do or don't survive any better than singles. However, we do have records from the National Stud Flock that can provide some of this information, albeit for pure-bred Polwarths. I'll put those results together for you next month.
* *lower production* - again we don't have a lot of information, however it is apparent that the rate of twinning in Falklands' ewes is much lower than that of Australian ewes.
* *more feed* - this is undoubtedly true in the Falklands.

Given that most flocks area achieving close to 100% lambing each year, the next step in the equation is to increase the survival of young sheep following birth up until their entry into the main breeding and wool producing flocks. This subject will be the focus of next month's sheep research update.

FUEL FREIGHT RATE CHANGES

by Mandy McLeod

In order to standardise the cost of fuel throughout the Islands, a decision has been made by Executive Council to subsidise fuel freight costs to Camp. The effective commencement date of this subsidy is the 1st August 1997.

The following points should be noted:

- The freight for bulk fuel deliveries on the Tamar will be invoiced at 0.01 pence per litre. (The same as the Stanley Services Ltd. delivery charge for fuel in Stanley).
- Stanley Services Limited charge 0.01 pence per litre for the filling of drums delivered to the Tamar for onward shipment to Camp. There will not therefore be any further freight charge for fuel delivered from Stanley to a coastal port.
- Camp residents whose fuel is delivered overland by third parties will also be subsidised to bring their costs to £0.01 pence per litre. Invoices should be submitted to the Treasury, Stanley, for the reimbursement of the subsidised portion.
- There will be no subsidies paid to Camp residents who pick up their fuel in Stanley or at a coastal port, or whose costs do not exceed the £0.01 Stanley Services Ltd. Levy.
- Anyone who has been invoiced by Stanley Services Ltd. since the 1st August 1997 at the previous rate, is instructed to pay the invoice in full. A reimbursement for the difference between the old rate and the new rate can be obtained from the treasury by submitting all relevant invoices and proof of payment. Claims are to be submitted to: Mr R. Wagner, Economic Adviser, Treasury, Stanley.

I would like to take this opportunity to thank all those who called the Department and made enquiries about hosting a GAP student. We are pleased to say that they have been placed for the season on farms that we hope will suit their interests and hobbies, as well as get them right into farming and the Camp life in the Falklands. They arrive mid October and we wish them well in their 6 month stay.

Mandy

CALCIFIED SEA-WEED

By Bob Reid

Just about every Agronomist who has visited the Falklands has commented on our acid, peaty soil and called for the addition of lime to improve the situation. Likewise, all those who have looked at lime importation have baulked at the cost, (About £160 per tonne). Especially when we need about 5-10 tonnes per hectare. Put simply, the high cost does not justify the benefit.

However, if we could find a source of lime within the islands, then our ability to improve pastures and subsequently diversify into products other than wool would be greatly enhanced. The Geologists tell us that we have no economic sources of limestone and that we are unlikely to find some anyway. **But** we do have an alternative source and that is found in some coastal areas.

Most people are familiar with a material found on our beaches know as "coral". This coral is in fact a calcified seaweed. It is used as a source of grit for hens and in some places such as Fox Bay it has been used to consolidate tracks and pathways.

Calcified seaweed had been harvested as a source of lime and trace elements for centuries off the coasts of Brittany, Cornwall, and Ireland, and both its "sweetening" and animal health giving properties are widely proclaimed. If we can find sources within the Falklands that we can harvest, process and spread economically then we will be in an excellent position to advance our pasture improvement and livestock health programmes.

Two deposits have been identified at Findlay Harbour and Ruggles Bay (Lafonia) and an initial survey was undertaken by Eric Goss and Don Aldiss. Samples from there have proved to have the same chemical makeup as the best European material. There are reports of a sizeable deposits in Port Stephen's and Shallow Bay. Where else??

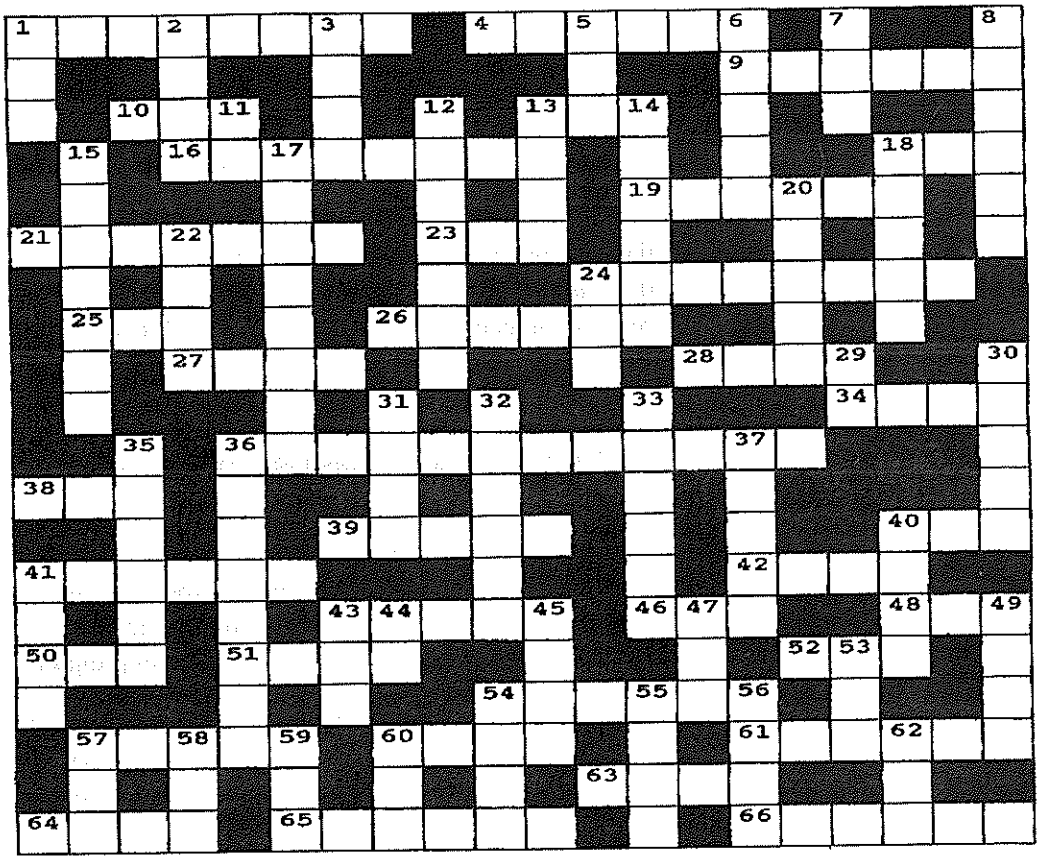
We need **your** help. If you know of any deposits or have heard of any then the Department of Agriculture would be grateful if you could share the knowledge. This is particularly true of West Falkland.

Remember if we can find a viable source of lime, it will facilitate the following:

- Encourage the growth and maintenance of clover
- improve the palatability of pasture
- stimulate earthworm activity
- give better use of applied fertiliser
- higher livestock fertility
- milk quality of sheep and cattle improvement
- overall better stock health

If you can help, then we would be glad to hear from you.

THE OCTOBER CROSSWORD & CLUES



ACROSS

1. CROSS
4. SHOUTS OF ENCOURAGEMENT
9. FAMOUS CANAL
10. FRUIT SEED
13. TOTAL
16. GAME BIRD
18. CARRIER
19. SHARED TIMETABLE
21. EATING CHICKEN
23. SPHERE
24. PERSON ILLEGALLY HAVING 2 SPOUSES
25. SMALL GOLFING IMPLEMENT
26. RIDGE, GRANDE - FALKLAND FARMS
27. RADIOGRAPHY
28. BEAN PROTEIN
34. NOT HOT - TRENDY
36. HORSE RACE WITH FENCES
38. PODDED VEGETABLE
39. COOKER
40. TOOTHED FASTENER
41. DOG HOUSE
42. SCENTED "ENGLISH" FLOWER
43. TRIM FLEECE
46. TELL UNTRUTHS
48. A COVE ON WEST FALKLAND
50. PLAYTHING
51. NIGHT LIGHT WORM
52. ANIMAL SHOWPLACE
54. A TYPE OF PRODUCER
57. HORSE
60. CHEESE
61. FOOTBALL TEAM NUMBER
63. A SMALL ISLAND
64. INFANT FOOD
65. SMALL PERSON
66. POLISHING CLOTH

DOWN

1. MODE OF TRANSPORT
2. LONG FRIED PEICE OF POTATO
3. THOUGHT
5. LARGE FLIGHTLESS BIRD
6. UNWANTED SKIN BLEMISHES
7. AFRICAN ANTELOPE
8. EATING RACK FOR CATTLE AND SHEEP
11. MEASUREMENT OF ACID/ALKALINE
12. WOOL EXTRACT
13. PENETRATE WITH A SHARP OBJECT
14. PAGE BORDER
15. WOOL MIX FABRIC
17. VERY LARGE MAMMAL
18. SWEEPING IMPLEMENT
20. STOMACH
22. SQUID SPECIES
24. CLUMP OF GRASS
29. NOT DIRECT CURRENT
30. REST
31. FINE SPRAY OFF CITRUS PEEL
32. A COMMON LEGUME
33. DIGGING TOOL
35. LOUD SPEAKER
36. WATER SCRAPER
37. WATER EDGE
40. NIL
41. FLYING TOY
43. BLOCK OF PEAT
44. ABBREVIATED ELECTRIC MEASUREMENT
45. GROUP WORKING TOGETHER
47. FROZEN WATER
49. WOOL FOR KNITTING
53. POETIC STORY
54. GO PALE
55. CREAMED POTATOES
56. MARSHY PLANT
57. WINTER SPORT
58. TYPE OF DEER
59. FEMALE PARENT
60. BOMB DISPOSAL
62. VALUE ADDED TAX

Compiled by Mandy McLeod

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IN THIS ISSUE:

PLUS ALL THE REGULAR FEATURES AND MORE!

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EDITORIAL

By now many farmers and contract shearers alike will have spent a fair amount of time in the shearing shed, sweating a bit (or a lot in some cases) here and there, spending any available rest time flat on the hard shed floor, trying to iron out those early back aches that are associated with the first throes of shearing. Those not sore through shearing have probably already got their share of the seasons bumps and bruises from being thrown around on the motorbike, quad or landrover while moving sheep over rough camp. The dogs, while initially being enthusiastic in this first hard run of work for a while, will probably be feeling it too until they get used to the heavier work load. It certainly is a time of physical adjustment for all !

Congratulations to the successful Camp Councillors in the recent elections and we wish them well over the next four years. I applaud anyone who has the courage to stand by their convictions and put themselves forward as a candidate in any election process, without which we would not have a democracy. I do not speak light-heartedly when I express my commiserations for those who were not elected. The Department of Agriculture welcome Lewis Clifton as the new Councillor for Agriculture.

Apologies for the lack of colour in this edition of the "WOOL PRESS", but it is "due to circumstances beyond our control" (the colour equipment at the FIG printing office is awaiting a spare part). It is unlikely that we will have use of this facility until after the New Year.

We can laugh at ourselves, but if you want to know what the joke is about - give Chris May a ring!

THIS MONTHS CONTRIBUTORS

Sean Miller	Sheep Husbandry Officer, DoA	**Andrew Coe**	Senior Veterinary Officer, DoA
Lyn Blake	Farmer/Owner, Little Chartres Farm	**Aidan Kerr**	Senior Scientist, DoA.
Doug Cartridge	Wool Adviser, DoA.	**Robert Hall**	Falkland Wool Growers Ltd.
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Maggie Barkman	Veterinary Nurse, DoA	**Mr & Mrs P. Robertson**	Farmers/Owners, Port Stephens
Nick Pitaluga	Owner/farmer, Salvador Farm	**Nigel Knight**	Farmer/Owner, Coast Ridge Farm
Malcolm Ashworth	Stanley Dairy.		

STAPLE STRENGTH AND CLEAN COLOUR OF FALKLAND ISLANDS WOOL.

An exercise aimed at monitoring these characteristics in Falklands wool.

By Doug Cartridge

Introduction

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

Staple Strength (SS)

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

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

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

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

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

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

Clean Colour

Clean wool colour varies from near white, through shades of cream to yellow and brown. Greasy wool appraised as containing unscourable colour will often scour to an acceptable colour. Discounts of 3 to 5% are applied to wools appraised as containing unscourable colour in Australia and New Zealand. Clean colour is measured routinely in these countries using a Tristimulus Colorimeter.

The visible light spectrum is made up of seven colours - red, orange, yellow, green, blue, indigo and violet. So, for example, if an object absorbs red, orange, green, blue, indigo and violet it will appear to be yellow. However, if light which shines on the object is not daylight but contains a predominance of one of the spectrum,

then the true colour of the object will be distorted. For this reason colour is measured using a standard light source which is specified by an international standard and referred to as CIE illuminant C. The CIE colour measurement system has been designed to simulate the colours as perceived by the human eye and therefore, the results produced are equivalent to what we see. By using filters it is possible to measure the amount of light reflected from an object over all sections of the spectrum. For these purposes the spectrum is divided into three zones made up of the red/orange area (X), the green/yellow area (Y) and the blue/indigo/violet area (Z). These three measurements are called the Tristimulus Values and are measured by the Colorimeter.

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

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

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

Method

One kilogram of randomly drawn samples will be collected from 6 farms across the Islands from 4 classes of wool: hogget, shearling, adult wethers and ewes. In addition to these farms samples will be drawn from all classes of stock shorn at Saladero. Samples will be sent for testing at an appropriate testing house. Results will be analysed with the intention of identifying reasons for differences in results with relation to land type, stock management, time of shearing and breed, sex and age of sheep. Following this initial trial a more extensive trial in subsequent years will be required to pin-point methods of improving the staple strength and clean colour of the Falkland Islands wool clip.

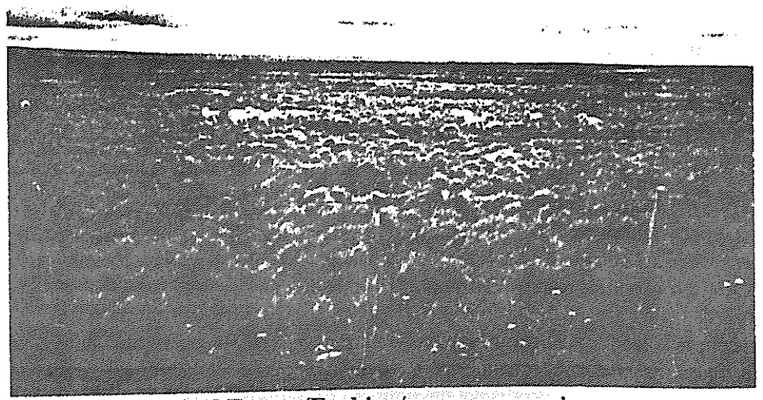
FAMILIAR FARMING IN THE MAGALLANES REGION

by Aidan Kerr

Earlier this month I visited Punta Arenas and the Magallanes region of Chile for three main purposes.

- to identify potential sources of local trees which would be well suited for providing shelter in our environment.
- to find out more about agriculture in the area and get some ideas which could benefit our agricultural industry.
- to establish working links with relevant agricultural specialists in Institutio De Investigaciones Agropecuarias (INIA) and see if we can exchange ideas and expertise for mutual benefit.

The visit was very worthwhile and I was hosted superbly by Dr. Nilo Covacevich (Director) and his staff at INIA and by many other people involved in agriculture there. I will soon produce a short report which is available from DoA on request. The main points are summarised below.



Typical Fescue/Fachine/green grass mix.

Trees for shelterbelts

Dr Alan Low (DoA Forestry Consultant) joined me in Punta Arenas en route here. With help from specialists at University of Magallanes we concluded that *Nothofagus antarctica* (Ñire) was probably the species of southern beech most likely to adapt to the harsher growing conditions for trees in 'camp' shelterbelts. *N. betuloides* (Coihue) is also worth testing where moisture is less limited. The more common *N. pumilio* (Lenga) may only be suitable for well sheltered moist sites around houses. Hopefully, University of Magallanes will be able to provide us with the required numbers of trees.

Magallanes agriculture

- **Pastures** The main type was a mix of Fachine, Diddle-dee, a tussock - forming Fescue similar to Land Tussac (Whitegrass is uncommon!) with better grasses (e.g. *Poa pratensis*) mixed into those vegetation types (see photo) and larger greens (Vegas).
- **Sheep.** Corriedales are the dominant breed. At Osvaldo Almonacid's stud farm I viewed a ram (see photo) which as a 11 month hogget weighed 114 kgs and clipped a 13.1 kg greasy fleece at 28.5-30 micron. Other ram hoggets clipped between 9- 13 kgs (greasy) and the ewe hoggets clipped 6.8- 9 kgs at 22-26 micron. Their high genetic potential was expressed partially because they had been grazed on *Poa pratensis*/ clover pastures, and in winter fed with supplement s and housed at night.

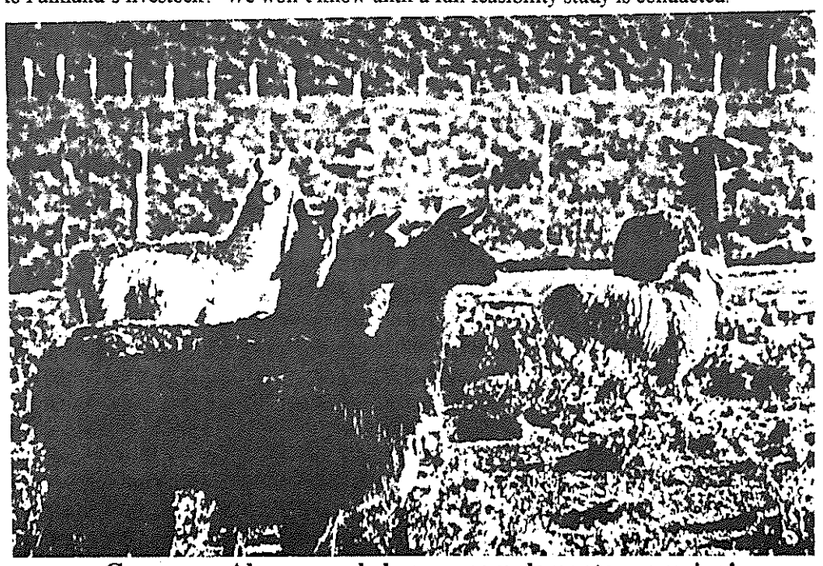
INIA A.I. Specialist. Etel Latorre, Naldo Almonacid and helper with a Corriedale stud.

- **Artificial insemination**. Osvaldo has his own custom built facilities, including a semen collection area, semen testing lab, ewe insemination race and special movable pen and ultra-sound scanner to check ewe pregnancy. INIA's A.I. specialist, Etel Latorre, regularly inseminates between 150-200 ewes per day. As President of Corriedale Magallanes he is keen to make contacts with farmers here and may have sheep and semen for sale.
- **Wool preparation and marketing.** I understood that as well as shearing the sheep visiting shearing gangs class, press and bale the wool. Also, several wool buyers then visit each farm, inspect the wool and tender their prices. The farmer then selects the best price, sends off his wool and receives payment soon after.
- **Farmers groups.** With Nilo Covacevich I attended the monthly meeting of a group of 12 sheep and cattle farmers north of Puerto Natales. They have been meeting, in all but the most busy months, for the last 10 years. INIA helped to establish this and similar groups in other areas but now they are all 'self-run'. Each farmer and their family takes turns in hosting the day long visit and meeting. They invite specialists to brief them e.g. a commercial specialist on beef cattle genetics presented his firm's products at the meeting. They also tour each farm and discuss a variety of topical issues e.g. rabbit control was current. The meeting is socially important for those living in the sparsely populated area. Some live in Puerto Natales and commute daily to their farms! While all are Chileans some have Scottish, German and Croatian origins. One was dressed in traditional 'Gaucho' style! Until about 20 years ago most of them worked for one of the very large company farms in the Magallanes area (sounds familiar!). The group have their own co-operative company with a President and Directors etc. They use the Internet to access information about markets for their supplies and products! They were very interested in farming here and are keen to host Falkland farmers sometime soon.

DoA -INIA links

It seems prudent and mutually beneficial that these links should be improved on a whole range of subjects. We share a similar physical and biological environments and agricultural and rural systems. The INIA team are a source of relevant expertise which could be as cost effective to use as those from UK or Australasia. Differences in English/Spanish - speaking abilities exist but I expect that these could be easily overcome as individual relationships improve.

- **Camellids.** Guanacos, alpacas and llamas (see photo) are being tested at Kampenaike. Guanacos, are wild in the Magallanes area and Tierra del Fuego and a few farmers have erected taller fences to enclose them. All three species, can be tamed readily with regular handling. The consensus was that alpacas may be the best suited to conditions here. They stay close to humans and can be grazed 'in-bye'. They require a one or two wire fence to keep them in a paddock. On the trial they were stocked at about 4 per hectare for 8 months over winter. They produce about 2 kgs of clean wool worth about £12. The normal gestation for all three species is about 11 months, although it could be 10 or 12 months depending on whether the winter is good or poor. If the weather is bad at birth the mothers have the ability to retain the young camellid for up to 24 hours to improve its chances of survival. This adaptation is unique to Camellids. Birth usually occurs about December and the female will be ready to mate within the next 10-15 days and will successfully give birth the next year. Could they be a viable addition to Falkland's livestock? We won't know until a full feasibility study is conducted.



Guanacos, Alpacas and sheep :- complementary grazing!

- **Satellite imagery.** Using satellite imagery INIA have produced an inventory of the vegetation resources of the Magallanes area as one layer within a geographic information system (GIS). Farm and paddock boundaries, infrastructure, stock carrying capacities and economic data can be integrated as separate layers. This has allowed changes in the condition of the pastures to be monitored between 1986 and 1996 so that farmers can modify their management as necessary.
- **A grazing trial** at INIA's Kampenaike research station compares sheep and wool production from Fachine/ grass pastures maintained in a range of conditions by different managements e.g. light to heavy spring/summer stocking rates, Fachine slashing, oversowing with white clover. Heavy grazing provides the best wool production per hectare and results in *Poa pratensis* (found in Greens here) domination over the native Fescue. Sounds familiar!
-

Farmers' visit - March 1998?

My main conclusion was that while the soils appear to be more fertile, pastures more productive and the climate drier, Magallanes agricultural industry is similar to here and could offer our industry much. I was made very welcome, despite my limited Spanish, and I would encourage farmers to visit the area and develop contacts and links. The links were there many years ago - their first Corriedale came from the Falklands! I am sure that with some persistence, better knowledge and confidence our industry could benefit from better contacts with Magallanes agriculture.

A farmers' visit to the Magallanes area would be very worthwhile. It could coincide with the 'sheep and cattle exposition' in Punta Arenas between March 4-8th. Worthwhile visits could include Standard Wool, the abattoir, INIA's pasture, camellid and horticultural trials and informal meetings with farmers there. Any farmers who are interested in visiting the Magallanes area and who have not yet given their names to us then please contact Robin Thompson or myself as soon as possible.

VETERINARY NURSE TRAINING

By Maggie Barkman

In order to view veterinary nurses in their natural habitat the suggestion was put to me, and I agreed, to spend a month observing and absorbing at the Beaumont Animal Hospital in London.

The Beaumont is a teaching hospital connected to the Royal College of Veterinary Surgeons. Each week about ten student vets and two or three student vet nurses are put through their paces. The 5 nurses divide their time between shifts in the reception, theatre, kennels, consulting rooms and the x-ray and laboratory sections.

My first week was divided between the x-ray / laboratory sections and reception. I discovered that in x-ray the animals could not be manually restrained by law and sand bags were the perfect answer. Obtaining that perfect x-ray entailed a lot of well trained and practised skills. The reception area manned by three clerical staff and a nurse was the "dealing with difficult customers" section. Patients were admitted and discharged and the paperwork was dealt with, here the cursing of the computer system ringed similar to home.

Working in kennels filled up my second week. This was considered the most rewarding section - although the messiest! Here every animal admitted for surgery was fitted with a catheter in the vein of the leg. Any elderly animal was blood sampled and any other tests that were required were done here, calculations for pre-operative drugs was one of our tasks, checked very thoroughly by the nurse of course. Pre and post operative care was a very high priority and a kennel assistant made sure all kennels and bedding were kept spotless. The students and myself all had to do at least one perfect catheterisation and blood sample. Twice daily temperature, pulse and respiration was also assigned to us and of course all the cuddles. Dietary needs where assessed post-op and the calculations involved in this was quite detailed.

Third week and I sweltered in theatre. The anaesthetic equipment and monitoring machines where fascinating. All animals during surgery are both manually and mechanically monitored by a student under the eagle eye of the theatre nurse. It was explained to me that the machines, although useful, could also be misleading and there was still no better monitoring equipment than the eyes and ears of the anaesthetist. The theatre area itself was a sterile zone managed much the same as a human hospital operating theatre with strict sterile procedures. It consisted of two main operating rooms, a dental area and pre-op room, where the patient received its initial anaesthetic and was clipped up for surgery. There was also a scrub room and recovery area and another small surgery for exotic operations. The separate dental surgery was occupied once a week when the veterinary dentist worked miracles replacing and rebuilding teeth. The hospital also sported an exotics specialist, this vet would do other duties too but concentrated his work towards hamsters, gerbils and other rodents, budgerigars, parrots, egg bound tortoises and even a monitor lizard with pancreatitis.

My fourth and final week was spent in the consulting rooms where the majority of the work was carried out by the vet students under the ever watchful eye of the vets. The main problem facing these animals seemed to stem from flea infestations. Thank goodness we have none of those terrors here! What with the flea problems and the cats and dogs falling from high rise flats the vets and nurses are kept very busy.

Everything done in the hospital was carried out to very high standards in order to demonstrate the best possible practice techniques to the students. The trip ended and much was observed although maybe not so much hands on work was achieved as I'd hoped due to the students needing the work experience. It was a worthwhile month and I thoroughly enjoyed it.

AGRICULTURAL (YOUTH) TRAINING SCHEME

THIS YEAR WE HAVE A SCHOOL LEAVER
WHO IS VERY KEEN TO JOIN OUR A.T.S. PROGRAMME.

WOULD ANYONE WHO IS INTERESTED
IN BEING A HOST FARMER OR REQUIRES MORE
INFORMATION, PLEASE CONTACT ME
EITHER AT HOME IN THE EVENINGS (21025)
OR AT THE DEPARTMENT DURING THE DAY. *Mandy*

FALKLAND WOOL GROWERS REMINDER

From Robert Hall

During the next four months, please:

* Prevent contamination of wool at all times and at all stages.
* Precision skirt to remove all stain off fleeces. This remains a major priority.
* Ensure all wool handlers and people offering "to help" are appropriately trained and reiterate the importance of Quality Control in your shearing shed.
* Put wether hogget "purses" in a rubbish bin!
* Never use dividers in bales.
* Note that unwrapped Quicklinks are preferred. If the knot is removed to a protective corner edge of the bale, they are acceptable to local bale handlers.
* Please make sure Bale Specifications are clear, correct and faxed/airmailed as soon as possible. Early shorn wool lengths must be recorded.

BULLS AVAILABLE

A number of yearling bulls were among the animals recovered from Keppel Island. If anyone would like to purchase any of these animals for breeding they will be available until November 10th after which they will be castrated.

More information is available from:

Robin Thompson at Goose Green, Phone 27354 or fax 27353.

FARM ECONOMIC SURVEY

Many thanks to those farmers who have returned their summary sheets of the 1996 farm accounts. We would appreciate it if any farmers who have not yet returned the completed forms, would do so at their earliest opportunity.

To date we have only received replies from 14 farms. The farm survey is not possible without the co-operation of farmers in providing us with this information. The survey is vital to determine whether future agricultural assistance is needed. Without this we must begin to assume that farmers are content with what has already been provided.

Ideally we require a reply from every wool producer in the Falklands to get the best sample of different size farms.

All information received is confidential. We are not asking for a copy of your tax return - this is not a means test. We look forward to receiving more information over the next few weeks. THANK YOU.

WANTED TO BUY

110 Landrover in good condition
Robin Thompson, Goose Green. Telephone No. 27354

THE PREGNANT MARE

By Caroline Lamb

In the past, foals here have simply been born. However, with the coming of **'Thyer'** there is greater awareness of whether a mare is pregnant or not, and a lot more attention paid to the actual birth.

You can get a rough idea of when the foal is due from the date the mare was last mated. Pregnancy usually lasts 11 months, though it is not uncommon for mares to go up to a month overdue. Unlike humans, induction methods are far from easy in the mare, so if she isn't ready to drop, you've just got to wait!

By the 7½ month mark, you may start to see movement of the foal through the mare's flank - it looks like she is being punched or kicked from the inside.

Closer to the day, and usually within a couple of weeks, the udder should start to fill out (although in maiden mares this may not happen). One day beforehand the abdomen should appear dropped with the flanks relaxed and waxy drops may form on the ends of the teats. On the day of the birth there may even be milk dripping from the teats.

Mares typically foal at night when there is no-one around. A few hours before labour starts they being to fidget and sweat around the elbows and flanks.

As labour begins abdominal contractions can be seen and mares usually lie down at this stage, though some will remain standing for the whole process.

The water bag will appear in view, then inside it 2 feet and then a nose will become evident. At this stage the bag usually breaks, releasing the 'waters'- several litres of fluid.

From this time, the foal should be entirely out within 15-30 minutes. The foal will lie still for the next 3-5 minutes while a vital amount of blood drains down the umbilical cord. If the cord is broken too early up to 1/3 of the foal's blood supply can be lost. Eventually the cord is naturally broken either by the foal moving or the mare standing up. The mare usually expels the placenta within the next couple of hours.

So, what can go wrong?

1. The birth:
   (i) the foal may be a bit big, or the mare tired of pushing. If the feet and head are there, a gentle pull on them will assist;
   (ii) the foal may be mis-presented. e.g. its head may be back or a foot bent backwards. If you can't see the feet and head, and the mare has made no progress after 30 minutes of straining, please call a vet for advice;
2. The foal: sometimes the water bag breaks and some of it is left stuck over the foal's nose. This must be immediately removed or the foal will suffocate;
3. The Placenta: mares should have dropped their cleanings within a few hours. If they are not expelled promptly, septicaemia or laminitis can result. So, if a mare still has her cleanings 3 hours after the birth, please contact the Veterinary Department.

Despite all the potential problems, nature is a wonderful thing and most of the time a healthy live foal will greet you in the morning.

THE CATTLE CONTROVERSY

By Bob Reid, Director of Agriculture.

I am sure that the readers of the **"Wool Press"**, like most people in the Islands, have more than a passing interest in the progress of our National Beef Herd and its potential towards the development of an export industry. Our beef specialist, Robin Thompson, has travelled the Islands to acquire a broad cross-section of the genetic diversity available within the cattle and has assembled approximately 135 cows of breeding capability. He, working with a team of Department of Agriculture staff, farmers and the crew of the Tamar F.I. has also been successful in removing the entire cattle herd from Keppel Island, and this has given an added benefit to the whole programme. Overall the project has been very well run and many of the sceptics (and I include myself in this) have been proven wrong in that the progress to date had been much quicker than expected, brought about by the pioneering of new operational techniques and the very obvious committment by all involved.

So it was a great disappointment to learn of an attack on both the professionalism and integrity of Robin Thompson in a faxed communication from Mr Robin Goodwin of Greenfield Farm, after a detailed and frank account (given over FIBS by Robin Thompson) of the problems encountered on the trans-shipment of cattle from Port Stephens to Goose Green.

A copy of the fax was sent to the Attorney General and he, quite rightly, requested a police inquiry into the affair. This inquiry resulted in the complete vindication of Robin Thompson.

However, whilst the accusatory fax from Mr Goodwin was quickly circulated throughout the Islands, his subsequent apology to Robin Thompson has not been. Therefore in the interest of farirness and for all our farmers to be completely informed, I have authorised the publication of both documents.

GREEN FIELD FARM.

Mr & Mrs R & M. GOODWIN
(OWNERS)
P.O.BOX 575.
GREEN FIELD FARM
FALKLAND ISLANDS S.A.OCEAN.

Telephone 00-500-32225
Fax 00-500-32226

For Atten .
Mr Robin Thompson.
Beef Specialist.
GOOSE GREEN 16/9/97
Fax .27353

BEEF LOSSES IN TRANSIT BY SEA .

Dear Sir,

Your interview on News Magazine on last Friday Night, ref; Cattle moving by Vessel From Port Stephen's to Goose Green and the Loss on The Port Stephen's Jetty of Two Cattle and Loss on board ship of a further three Cattle while they were in your care is nothing short of an act of cruelty of the very worst kind.

Your comments to Penguin news gutted me when you were heard to say ,that the cattle died through some matting coming adrift, but that you thought you could learn from the experience for future cattle movements.

There is no doubt that you permitted the utmost act of worst cruelty letting these animals die a very painful death practically under your very nose.

You have come to these Islands under a F.I.G Contract over and above suitable local people, to show I believe it to be, the right way to establish a good beef herd. Does this also include the mistreatment of innocent animals, Who up untill now had been moved around the Islands in a proper and husband like manner.

I believe that you, as the responsible caretaker of these animals should be answerable to their deaths.

yours sincerely,

ROBIN GOODWIN
GREEN FIELD FARM.

copies to.

Director Agricultural dept.
Attorney Generals Office.
Falkland Farmers Association.

Mr & Mrs R & M. GOODWIN
(OWNERS)
P.O.BOX 575.
GREEN FIELD FARM.
FALKLAND ISLANDS S.A.OCEAN

Telephone 00-500-32225
Fax 00-500-32226

Mr R. Thompson
Beef Specialist
Goose Green.
27353

19/10/97

Dear Mr Thompson,

In my letter to you of 16th September 1997 I wrongly accused you of cruelty towards animals.

I withdraw my allegations of cruelty and maltreatment of animals having been given the full facts by both the Police and the Attorney - General.

I must also apoligise to those who may have been indirectly affected by my letter, namely the Master and crew od the Tamar, the Farmers from Port Stephens area and other officers from the Agricultural Department who were helping with the Cattle project.

I sincerely apologise for any damage I may Have caused you and your Family and admit that the contents of the letter are completely untrue.

Yours Faithfully,

ROBIN GOODWIN
GREEN FIELD FARM.

Copies to

Director of Agriculture
Attorney Generals Chambers
Falkland Farmers Association.

WELFARE - FOLLOW UP

by Andrew Coe

With regard to my article in September's "**Wool Press**", **Animal Welfare - The Way Forward** I have had comments in writing from 4 farmers and by telephone from another. I will be replying to all these in due course but I thought it opportune to clarify one or two of the points raised in case there are any misconceptions.

Of most concern appears to be the question of how long it is permissible to leave dogs unattended. I chose my words in the original article very carefully and took care not to stipulate a definite period above which I consider it would be unacceptable to leave a dog unattended. What I wanted to do was to give farmers an idea of what I consider is a reasonable period to leave a dog. My suggestion of two nights means in practical terms that a farmer could leave his/her farm on a Friday morning, return Sunday evening and providing sufficient food and water was left for the dogs then I would have no objections. I should point out that there is no prospect of this becoming law nor would I be interested in trying to make this law.

Once a dog begins to be left for a period of three nights or longer than as I pointed out in the article I think a farmers defence in the event of something going wrong becomes increasingly shaky. However I should like to stress that simply leaving a dog for a long time would not automatically lead to a prosecution since it would be necessary to prove that a dog had suffered unnecessarily as a result of being left. Each case of a dog suffering would have to be considered on an individual basis and the extent to which being left for a considerable time contributed to its suffering would need to be carefully assessed before deciding on whether or not prosecution was appropriate.

In summary providing a dog is left with suitable quantities of food and water for a period of no longer than two nights I will take the view that owners have acted in a responsible manner. If dogs are left for a longer period than this and it is reported to me that a dog is suffering as a result then I will be obliged to investigate the matter. If in my view the suffering is due in large part to the dog being left unattended I will have no alternative but to present papers to the Attorney General. If he decides that there is a case to be answered it will be pursued through the courts who will ultimately have to decide on the merits of the case.

On the subject of the different ages at which lambs and cattle can be marked without the use of anaesthetic and the perceived problems of 'mismothering' I should like to say the following.

a) It is my view that castration and tail docking of lambs is best carried out before 10 weeks of age. Several farmers I have spoken to in the Falklands have reported no problems of mismothering at this age and certainly that is my experience when large numbers of hill sheep are gathered in Northern England and Scotland for marking. I believe mismothering is greatly reduced by constructing lamb marking pens in each ewe camp to reduce gathering / driving periods and holding ewes and lambs in mothering up pens prior to returning them to their camps.

b) Sheep mature at an earlier age than cattle and a five month old ram will be more mature than a six month old bull which is one of the reasons for having a lower age threshold on rams than bulls. The other reason is more practical. Cattle are a secondary enterprise on most farms. A six month age limit means that if cattle are gathered twice a year at six monthly intervals this should not interfere with any sheep work and all calves can thus be marked before they reach six months of age.

   Please note, that I am not prohibiting the castration of rams or bulls after the age limits set, I am merely saying that after these ages, local anaesthetic must be used and the operator must be competent in what he/she is doing. I am not certain why some people think that is an unreasonable stance to take.

I hope this clarifies the issues in question, if there are any more comments, please contact me.

ARTIFICIAL INSEMINATION

THERE IS A CHANCE TO IMPORT SOME SEMEN - ARE YOU INTERESTED?

From Judy Summers, Farmers Association

Robin Thompson is organising the importation of cattle semen for the beef herd in the New Year, and says there would be space for more straws in the container if anyone would like to make use of it. Robin goes to Tasmania in mid November, so if you would like him to get cattle semen for you a decision is needed by **10th November 1997**, because it will have to be ordered before he leaves here. I am sure Robin would be happy to give advice and tell you what breeds might be available.

Bob Reid would be willing to use his contacts to source sheep semen, but again he would need to know what people want straight away.

If you are interested, please telephone or fax the Farmers Association office with the following details as soon as possible.

Cattle Semen: Breed, whether beef or dairy.
Number of straws required.

Sheep Semen: Breed.
Micron Range.
Yield.
Number of straws required.

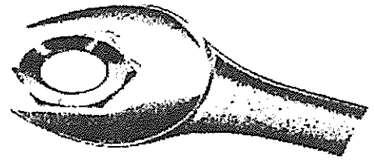
Please also give an indication of the maximum price you would pay.

Some of you already have semen in store for next season, please check with Maggie at the Department of Agriculture if you are unsure.

A VERSITILE TOOL

From Malcolm Ashworth, Beckside Farm.

A nut or a bolt has flats and corners. The corners are more easily damaged and do not offer the optimum grip for a tool. In developing the METRINCH tool system Jozef Ruzicka had the aim to design sockets and spanners, which would not only have longer effective life, but would also ensure minimal damage to the fasteners on which they are used.



The patented MATRINCH Wall Drive profile drives only on the flats and not on the corners. The dimensions of sockets and spanners have been precisely calculated, so that a single tool will operate on both metric and inch series fasteners.

For example, with a 19 mm spanner it is possible not only to tighten or undo a metric nut or bolt, but also the inch bolts 3/4" AF, 3/8" BSW and 7/16" BSF even when such bolts have become worn, damaged or completely rounded by abraision.

A further major advantage in terms of application is that the METRINCH Wall Drive profile can be used on open-end spanners as well as on sockets and ring-spanners. METRINCH open-end spanners always privide a 4 point grip instead of the 2 point grip characterizing the traditional profile.

If anyone is interested in this very versitile tool, please telephone Malcolm for more details.

PORT STEPHENS.

Port Stephens farm (originally named Deania Estate and sometime at a later date Markhampton Station) was founded in 1870 by J.M.Dean and partners (both Deans). The Station consisted of 1 sq. mile of Freehold around the present settlement and leased for 21 years all land west of Double Creek/Tiger Bay, including Albemarle.

In 1874 C.H. Williams failed in his attempts to farm Port Edgar and so incorporated into Port Stephens to cover his huge debts with Dean & Sons. Weddell and Dyke Islands were also leased to Williams; Dyke Island was ceded to Port Stephens while Weddell Island was sold to Hamiltons.

With the change of Government policy in 1903 the farm was bought Freehold, excluding Albemarle, which remained on lease. This left the farm with approximately 235,000 acres; 195,000 Freehold and 40,000 Leasehold.

In 1945 W. Markham Dean sold the farm to the Falkland Islands Co. Ltd (W.M.Dean became chairman of the Falkland Islands Company) The Falkland Islands Company acquired the Freehold of the Albemarle reserve in the mid 1960's.

On April 1st. 1988. The Falkland Islands Company Ltd., sold the farm by private treaty to employees of the farm and it was sub-divided in five sections; each of a nominal 10,000 sheep.

A variety of sheep breeds were imported and tried in the early years. From 1872, flocks were mainly Cheviot and Merino. Other varieties such as Hampshire Down, Kent, Lincoln and Perendale were all tried and in the later years Romney and Corriedale.

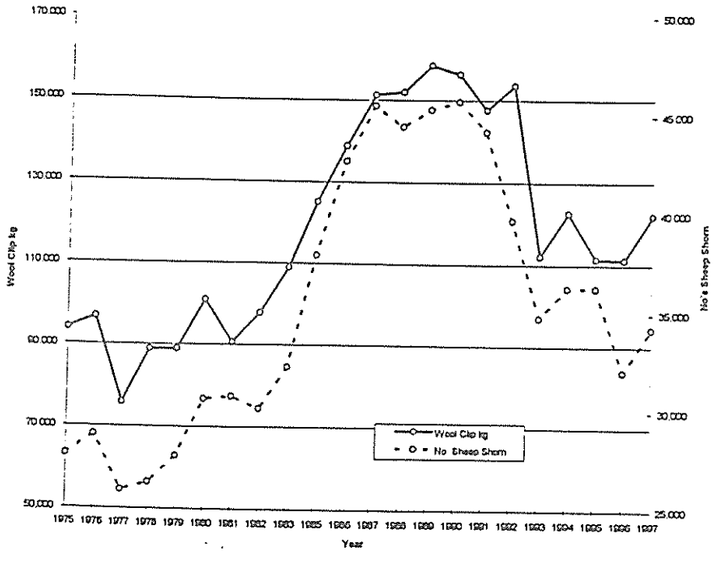
Before the 1970's the sheep numbers peaked at 45,800 in 1898 but gradually declined until it reached a level of 25-35,000. In the 1970's and 80's numbers increased to 52,000 producing 151,000 Kilograms of wool. This in turn made Port Stephens farm the third biggest producers of wool in the Islands.

At the time of sub-division there were approximately 200 miles of fencing, 85 sets of beach crates (the biggest set consisted of 23 crates). Port Stephens farm is reputed to have over 1,000 miles of high water mark coastline.

About 1873 a dairy was established in the Albemarle area. Butter (salted) appears to have been the main consideration, selling 1,150 lbs. in some years, but 1876 mentions the shipment of 4 galls. neatsfoot oil, 2 bags hoofs and 4 bags shinbones. The dairy seems to have fizzled out in 1879 when the farm had enough sheep to stock the Albemarle area.

1882 appears to be the year the Tryworks were installed at Port Stephens as there is mention of the shipment of 18 tons of tallow in that year (49.5 tons in 1884). It seems that the farm bought sheep to process also but, in some instances, sheep were processed for other farms. The Tryworks closed in 1930 although for some reason it was not operational during the years of the Great War. With the increasing utilisation of electricity the market was falling for the tallow industry.

A graph showing the total Wool Clip and total numbers of Sheep Shorn for the Port Stephen's area including Albemarle, Port Edgar, South Harbour and Stoney Ridge farms from 1975 to 1997.



I would like to thank Peter and Anne Robertson for this very interesting article on their farm, and hope other farmers will find time to do a Farm Profile on their farms.

I had received a few photographs, but due to the Printers coloured machinery breaking down I was unable to have them copied. Ed.

DARK COLOURED FIBRES

From Robert Hall, Falkland Wool Growers.

During marketing of the 1995/96 Falkland wool clip, it was widely reported that a number of manufacturers had problems with excessive levels of dark coloured fibres in various tops spun from Falkland wool and as a consequence processors made serious complaints to the Agency.

As a result of this damaging situation, last season the Agency called for a "**Stain Free Clip Campaign**" and for farms to make special efforts to ensure that their wool was completely skirted of stain. It is gratifying to be able to report that no complaints have been received by the Agency regarding deliveries with this problem to date during 1997 (although one lot of wool was criticised by a prospective buyer, it did not precipitate a complaint by the actual purchaser).

This improvement upon 1996 was both welcome and a relief, not least because further high levels of dark coloured fibres would have done additional damage to the reputation of the Falkland wool clip. As it was, advertising the work and efforts being undertaken by farms throughout the Islands, manufacturers bought and processed Falkland wool. Later, with 1996/97 wool processing results available, reasonable confidence has returned in Falkland wool having passable dark coloured fibre levels. Falkland wool prices were thus maintained in a difficult year; whereas had the stained wool problems re-occurred such price levels would have been widely discounted.

The wool preparation and skirting efforts employed by farms last season must be maintained. Given that even with the **"Stain Free Clip Campaign"** some Falkland wool was criticised, there is no room for efforts to be reduced and clearly improvements are still required e.g. consistent high quality skirting and possibly crutching. Coupled with precision skirting, crutching (within the three months before shearing) is regarded as the most effective method of minimising dark coloured fibres in fleece wool: hence crutching is now a stipulation of Australian and New Zealand wool quality assurance programmes. The benefits of crutching not only extend to improving wool quality, but include enhanced sheep production and lamb welfare, therefore moves to crutch in the Falkland Islands are thoroughly welcome.

The wool table is the quality control centre of every sheep farm's operation and year. Wool skirting may be a choice job, however it is vitally important as demonstrated by the different reactions by manufacturers over the last two seasons. Furthermore competing wool clips around the world are improving their wool quality specifications all the time: the Falklands Islands should and can challenge and better such competition.

In short, the "**Stain Free Clip Campaign**" must continue. The production of high quality well prepared wool is one of the keys to better prices for Falkland wool in 1997/98 and the future.

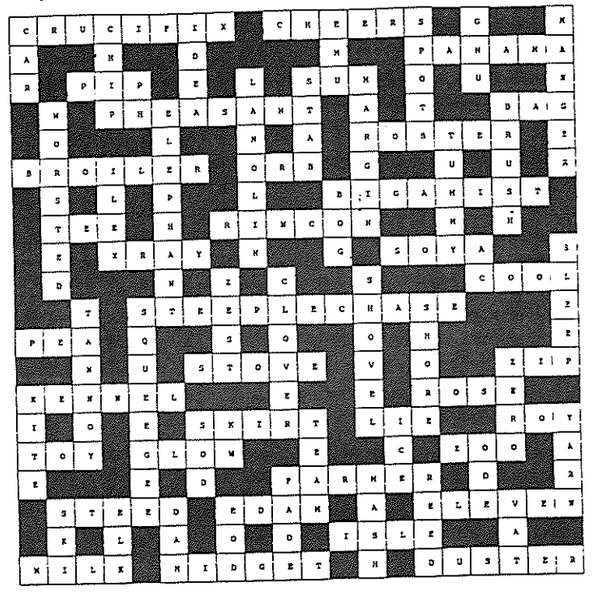
THE

SOLUTION

TO

OCTOBER'S

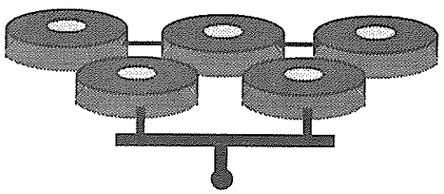
CROSS WORD



A COUPLE OF USEFUL HOME-MADE IDEAS

by Mandy McLeod

TYRE HARROW

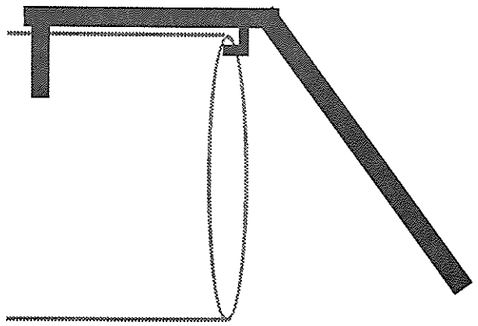


Here is a simple harrow made from old tyres which makes an excellent tool for spreading manure and breaking up dung pats on pasture land. It is also great for covering broadcast seed and there is no chance of the seed getting buried because there are no tines digging up the soil. Rubbish can pass through the harrow and the tyres can work on uneven ground.

The idea comes from PRACTICAL FARM IDEAS, and inventor James Vaughn uses 20 inch tyres and hooks them together with cable and eye bolts.

BARREL UP-ENDER

I think we can all agree that full drums or barrels are very heavy, and while rolling a drum into position without doing too much physical damage, the task of up-ending it is another matter entirely.



Steve Saunderson sent this simple home-made lever to PRACTICAL FARM IDEAS. It is made from a 4 foot piece of scaffolding pole with a small catch made from 3/8 inch plate welded about 18 inches from one end. To the same end a hoop of steel has been welded so the lever stays firmly on the drum. The pipe is bent so the handle nearly touches the ground.

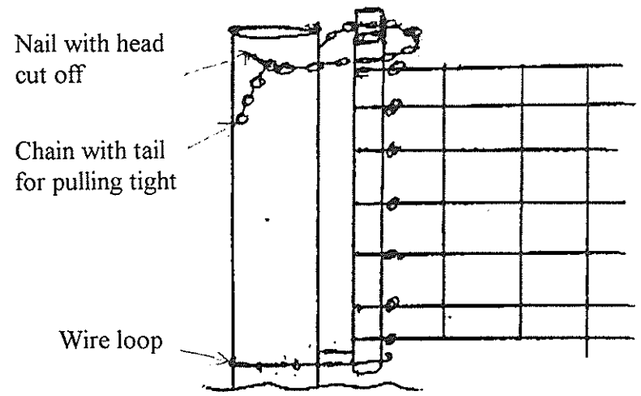
This tool not only gives good leverage, but makes the task much easier on the hands, as there is no more gripping the drum rims with the fingertips.

GATE FASTENERS

By Nick Pitaluga, Salvador Farm

In response and to complement Seans article on gate fasteners, I offer the following for anyone who hasn't come across them yet.

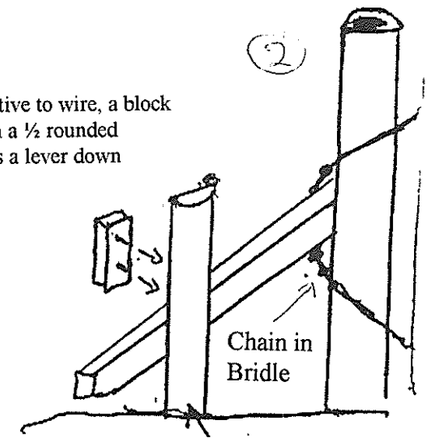
(1)



(this is good for lamb-marking pens where a lever is intrusive).

(2)

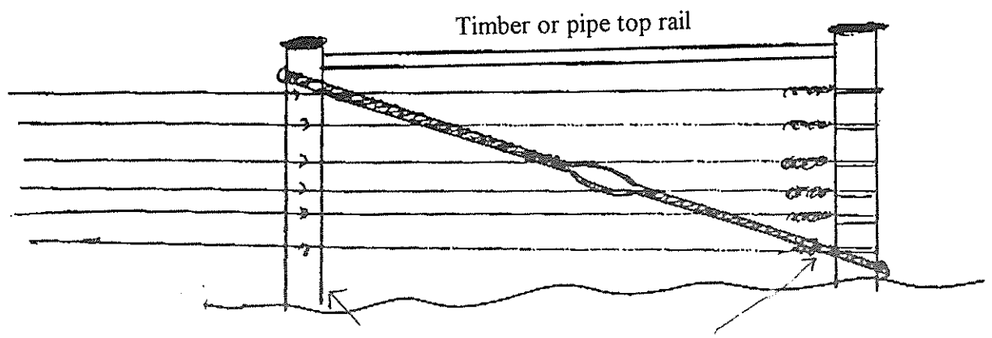
An alternative to wire, a block of wood on a ½ rounded stake holds a lever down



Handy use for broken stakes

(3)

From Kondinin Groups "Wires & Pliers".
The following simpler end assembly or "Yugillo" where a stay alone is insufficient (this is already in use on some farms in the Falklands)



Instead of tying off on out post, take wires through to second one. Saves using netting to fill in (I don't think anyone twists up wires with a dropper in the middle these days).

OPEN LETTER

WOOL PACKS

From Lyn Blake, Little Chartres

When working out the cost of wool packs often the figure entered is just the price per pack, ***without*** the freight ***or*** the expenses incurred when putting money up-front. The amount of money can be quite substantial and for quite a considerable period, which means it is out of the farm account losing interest or, more likely, increasing the over draft. I think it is time to see if this situation can be changed. Here are my ideas, please contact me with yours.

1) The move towards NZ/Australian standard packs is well established here in the Falkland Islands. They are capless, made of approved material and to standard measurements.
2) If purchased in bulk they could cost the farmer about £3 each ***in*** Stanley.
3) The presses they fit are: Sunbeam, Lyco and Donalds. The early Donalds can easily be shortened by inserting a false floor and wooldraulics could be converted. I suspect with a little Kelper ingenuity.
4) The bales weigh 180 - 200kg. For every 1200kg pressed in the long packs you are looking at using approximately one extra pack ***but*** at the greatly reduced cost per pack, plus no hoops to buy, it is still a much cheaper system.
5) The bales are easier to lift and move around and just a reminder - freight on wool is paid on kilos, ***not*** per bale, so no increased costs there. Some small increase in charges may be seen with road transport and FIPASS handling charges, although this is more than offset by the savings.
6) **Capless Conversion Kits** are arriving at Falkland Farmers at the end of October, so now is the time to:

GO CAPLESS GO STANDARD AND SAVE

I would like to see a container of these standard packs arrive in Stanley next June/July so that farmers can buy in August/September. This is well before the season and I would hope it would give people confidence to use the system. Inside the container, the packs are in bundles of 50 that can be lifted by hand. This makes for very easy dispatch.

THE PROBLEMS TO OVERCOME

- Funding of approximately £25,000 for the initial consignment of packs, plus a smaller sum for clips.
- Storage and management of the packs once they are in Stanley. so they can be purchased reasonably close to shearing time, thus eliminating the need to have large sums of money tied up for months on end.

*The objective is to get **good quality packs** into the Falklands at a **reasonable price**.*

*Any ideas on the subject are most welcome, **telephone 42206 evenings.***

WEST FALKLAND RAM & FLEECE SHOW

The **'Eleventh'** West Falkland Ram and Fleece show will be held this year on **Monday 29th December 1997** 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 Hoggett**
Class 2	**Full Wooled Shearing Ram**
Class 3	**Full Wooled Mature Ram**
Class 4	**Hoggett Fleece**
Class 5	**Any Fine Wool Fleece other than Hoggett**
Class 6	**Any 'B' Wether type Fleece**

With the large number of high class sheep imported in the last few years, we expect to see some outstanding rams and fleeces.

Most of the West flocked to Fox Bay last year, but there were still a few who were a bit sheepish.

We will keep you all up to date on details of prizes and sponsors as the event approaches nearer.

This is all for now, good luck with the start of shearing. ***N. A. Knight, Organiser W.F.R. & F.S.***

FEEDING HORSES

By Sean Miller

With the racing season coming up rapidly, the gradual movement of the *racing troops* in from their winter camps and onto settlement greens is well under way. For those who feed concentrates and prepared feeds (e.g. pellets etc.) here is a timely feeding guide for the coming season.

The following tables can provide a guide for the quantities of feed a horse may need under a few different levels of work, and refer to situations where the horse is fully hand-fed. If the horses are allowed to graze pasture then hay may not be needed.

Table 1. Approximate liveweight of horses (in good condition).

Type	Height (cm)	Weight (kg)
Pony	**100-120**	**225-270**
Yearlings	**120-140**	**270-360**
Light hack	**140-150**	**360-450**
Medium hack	**150-160**	**450-540**
Heavy hack	**160-170**	**540-640**

Table 2. Daily quantities of feed per 100 kg of livestock (full hand-feeding).

Work rate	Pellets (kg)	Hay (kg)
Hard	**1.1-1.5**	**1.0**
Medium	**0.75-1.0**	**1.0-1.25**
Light	**0.5-0.75**	**1.25-1.5**
Idle	**Some if hay is poor**	**1.5**

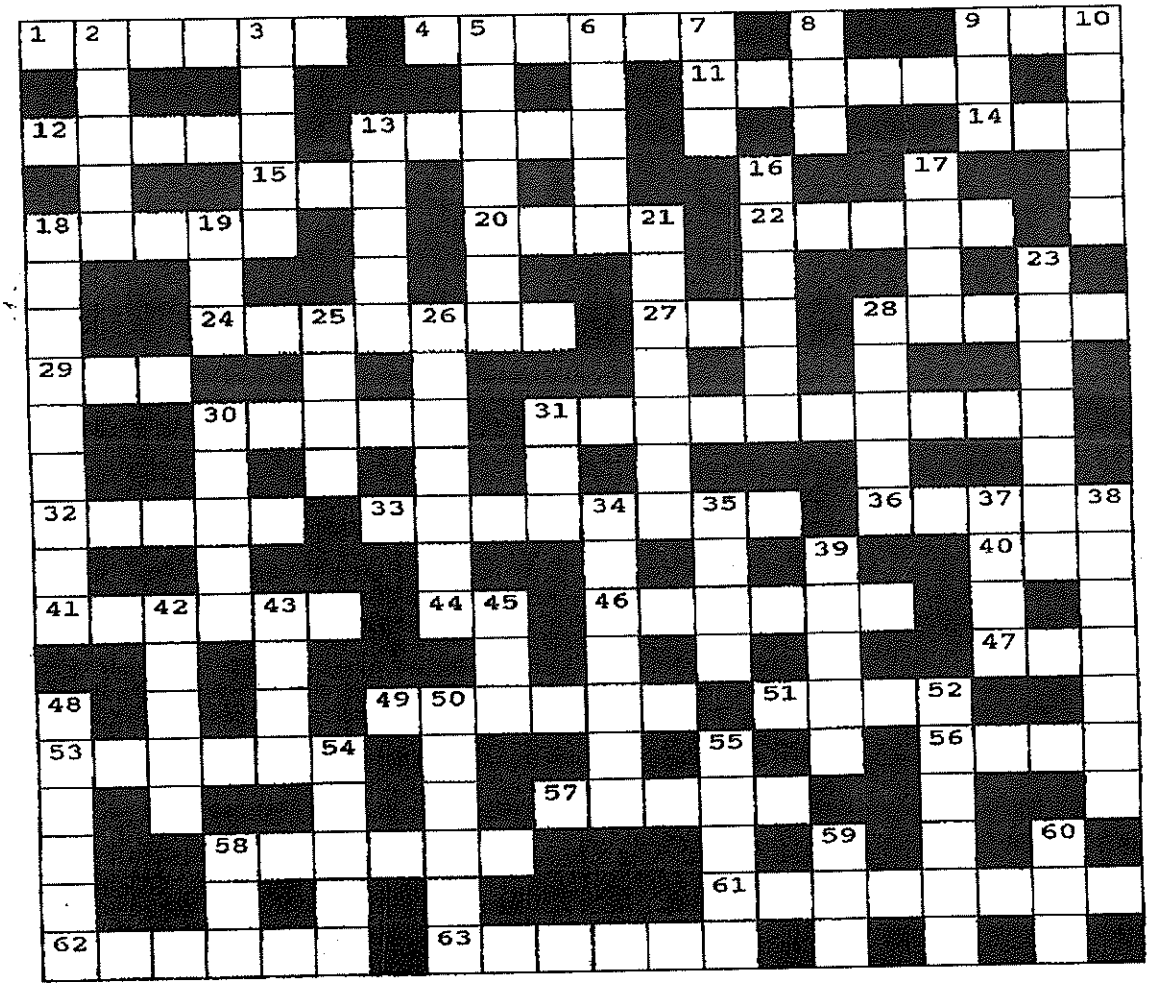
If you haven't got a set of scales or a special measuring tape with height and weight conversions handy, get a rough idea of how tall the horse is and the first table can give you an estimate of its weight. Then use the second table to work out the weight of hay and pellets to feed. For example, a 450kg horse in full race training could be fed 6.75kg of pellets (i.e. 450 divided by 100 then multiplied by 1.5) and 4.5kg of hay or chaff (i.e. 450 divided by 100 then multiplied by 1).

When measuring the horse in hands, the conversion from hands to cm is to multiply by 10.16 (e.g. 1 15 hand horse is 152 cm).

When bringing horses in to start feeding things like pellets, it is worth remembering to start them off on small quantities for the first week (about 1kg), and gradually increase the quantity over the second and third weeks. This gives the digestive system time to adapt to the richer diet and prevents conditions such as Laminitis occurring. Laminitis can be associated with the rapid digestion of large amounts of very high quality feeds (such as pellets); the result being a form of acid poisoning which affects hoof growth and can kill the horse. In fact, distinct ridges can be easily seen on hooves of horses that have has severe cases of this so called *grain-poisoning*.

Finally, add a bit of luck in the breeding stakes to some good training and you may be lucky enough to see the return of the odd quid from the betting ring this summer!

THE NOVEMBER CROSS WORD & CLUES



ACROSS

1. SLIGHT BURN
4. WICKET UPRIGHTS
9. MINE
11. BEAST
12. AMERICAN MARSH LAND
13. PUS FILLED WOUNDS
14. TIBETAN OX
15. AS WELL
18. GRIN
20. MOUNTAIN LAKE OR POOL
22. STEMLESS WATER PLANT
24. SMALL SHINY DECORATIVE PIECES
27. ATMOSPHERE
28. PUZZLE TIPS
29. ABLE
30. WOOL PRODUCERS
31. CARDIAC RYTHMS
32. FAINT
33. ROUNDERS BOWLING METHOD
36. OYSTER JEWEL
40. TRACTOR POWER SHAFT
41. KEEP NOTES
44. TUBERCULOSIS
46. OF CATTLE
47. FIRM JELLY
49. SPACER BETWEEN NUT AND BOLT
51. GOLF STICK
53. WHITE WITH RED EYES
56. 6 BALLS
57. STICKY REFINED SUGAR
58. A HANDSOME YOUNG MAN
61. A TYPE OF CANCER
62. MAIN PERSON RESPONSIBLE FOR A PUBLICATION'S CONTENT
63. A FALKLAND ISLAND

DOWN

2. LUCKY OBJECT
3. SHEARING SHED DESIGN
5. SCOTTISH FLOWER
6. SKINFLINT
7. TREE FLUID
8. SMALL TASTE
9. LAYER OF WOOD OR TWIST OF YARN
10. COIN OR TICKET FOR A SPECIFIC USE
13. BRAG
16. MIMICKING BIRDS
17. BRICK PARTITION
18. A PERSON WHO FOLLOWS ANOTHER
19. LOWER LIMB
21. CANADIAN FALLS
23. POSH PUDDING
25. MADE COLD
26. SHEEP'S 'WIG'
28. NOT EXPENSIVE
30. MID MORNING BREAK
31. SHADE OF COLOUR
34. THEFT
35. WANDER ABOUT
37. PRIMATES
38. PRIZE DRAW
39. FISH
42. DECAPODS
43. PRECIPITATION
45. LARGE PEOPLE TRANSPORTER
48. EARLY RELEASE OF PRISONER
50. ANTENNA
52. COOKED IN WATER
54. SMELL
55. PIG TAILS ARE THIS
58. BEHIND
59. YOUNG SEAL
60. TEAR

Compiled by Mandy McLeod

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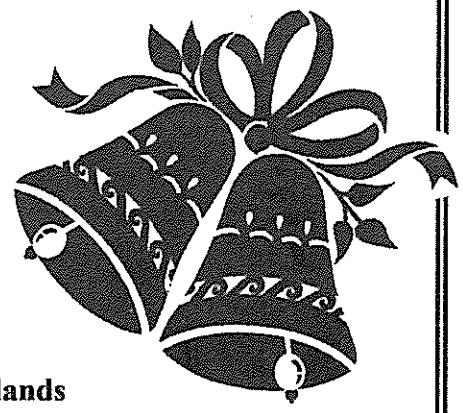
IN THIS ISSUE:



PLUS ALL THE REGULAR FEATURES AND MORE!

The Wool Press is published by the Department of Agriculture. Editor: Mrs Charlene Rowland.

EDITORIAL

Where has this year gone. The saying "The older you get, the faster it goes" is definitely on the right track!

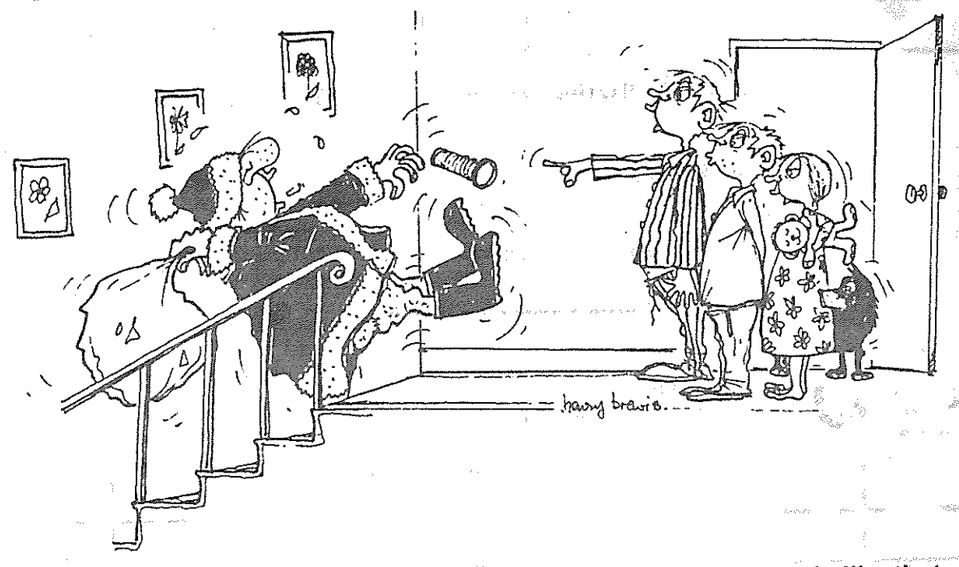
Shearing and lamb-marking seems to be in full swing once again. I'm glad I am not a sheep, I wouldn't fancy getting my coat off just yet.

As you are probably aware from listening to the flights, I am out in Camp a fair bit checking EDF fences. With going on training in the early new year, I am trying to get as many visits in before I go, so if anyone needs their fences to be inspected - please give me a call.

Our new vet Cameron Bell, his wife and baby should be arriving in a week or so. Cameron is taking over from Caroline who will be leaving us in January, 1998. Gillian will also be arriving home for Christmas, hopefully I can persuade her to do an article on her experience at college over the past year.

Robin is presently in Tasmania on holiday and should be arriving back early January with his wife and two boys. Bob is also on the move. He is off home to Tasmania for a holiday and will be back late January. Diana Roberts is taking up a five year course in Sydney, Australia to become a Vet. The staff at the Department of Agriculture wish her all the best. Another departure is Sparrow (Robert Coombe) who has decided to set up his own business in landscape gardening - good luck.

Last but not least, enjoy the activities of the festive season (Sports, Ram & Fleece Show, Estancia Shearing Competition) and have a very happy Christmas and New Year!



'...there, I told you it was Dad, - Santa Claus never used words like that ...!

THIS MONTHS CONTRIBUTORS

Sean Miller	Sheep Husbandry Officer, DoA	**Peter Marriot**	Falkland Islands Wool Marketing
Aidan Kerr	Senior Scientist, DoA.	**Owen Summers**	Deputy Director of Agriculture
Robert Hall	Falkland Wool Growers Ltd.	**Nick Pitaluga**	Farm/Owner, Salvador Farm
Robin Thompson	Beef Specialist, DoA.	**David Parsons**	Legume Agronomist, DoA
Caroline Lamb	Veterinary Officer, DoA.	**Dr Alan Low**	Forestry Consultant, DoA
Nigel Knight	Farmer/Owner, Coast Ridge Farm	**Lyn Blake**	Farm/Owner, Little Chartres.

AGENCY VISITS TO FARMS

By Robert Hall, Falkland Wool Growers Ltd

Following Colin & Gill's visit to Camp in January/February of this year, I am planning to visit farms in December/January.

Sadly, I am unlikely to see every Farmer and Principal on this particular visit, however I hope to see as many people as possible and plan to do a further visit before too long. If convenient, do please arrange to see me, or for me to call.

My particular thanks to all those who have very kindly agreed to have me to stay and visit, and to all who "*pass me along the track*".

December 1997 Itinerary.

Friday	**12th**	**Arrive**	**MPA (Hopefully)**
Saturday	**13th**	**Depart**	**Stanley (FIGAS)**
	13th	**Arrive**	**Lively Island**
Sunday	**14th**	**Depart**	**Lively Island (FIGAS)**
	14th	**Arrive**	**Speedwell Island**
Monday	**15th**	**Depart**	**Speedwell Island (FIGAS)**
	15th	**Arrive**	**Goose Green**
Tuesday	**16th**	**Depart**	**Goose Green (FIGAS)**
	16th	**Arrive**	**Shallow Harbour**
Wednesday	**17th**	**Depart**	**Shallow Harbour (FIGAS)**
	17th	**Arrive**	**Fox Bay for Leicester Falls**
Thursday	**18th**	**Depart**	**Leicester Falls**
	18th	**Arrive**	**Philomel (Fox Bay Village)**
Friday	**19th**	**Depart**	**Philomel (Fox Bay Village)**
	19th	**Arrive**	**Sheffield**
Saturday	**20th**	**Depart**	**Sheffield**
	20th	**Arrive**	**Shallow Bay**
Sunday	**21st**	**Depart**	**Shallow Bay**
	21st	**Arrive**	**Main Point**
Monday	**22nd**	**Depart**	**Main Point**
	22nd	**Arrive**	**Bold Cove**
Tuesday	**23rd**	**Depart**	**Bold Cove (FIGAS)**
	23rd	**Arrive**	**Stanley**
Wednesday	**24th**	**Stanley**	**Meeting: D.O.A.**
Monday	**29th**	**Estancia Shearing**	**Competition**

January 1998 Itinerary Meetings in Stanley +

Saturday	**3rd**	**Arrive**	**Port Louis**
Sunday	**4th**	**Depart**	**Port Louis/Mullet Creek**
	4th	**Visit**	**Riverview**

Anyone on East Falkland who would like a visit in late December/ early January, please contact me and we can arrange something mutually convenient.

I look forward to seeing as many farmers as possible in the near future.

WELCHA RAM BREEDERS CASE STUDY

Source: Farming Ahead No. 71 November 1997

The Walcha Ram Breeders Group in Australia was formed 10 years ago by eight fine wool producers in the high altitude, high summer rainfall (950mm) region of Walcha, New South Wales.

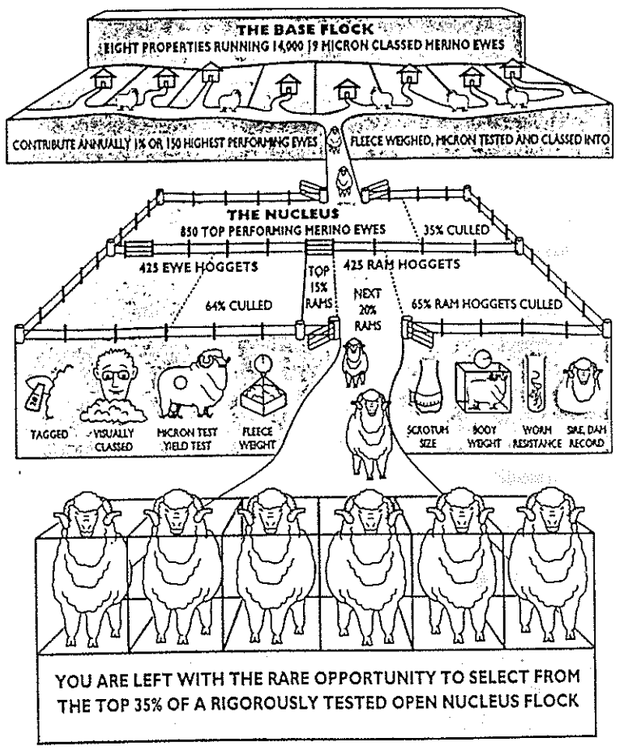
The nucleus consists of 700 ewes, supported by participating flocks which join between 16,000 and 20,000 find wool ewes annually.

The breeding objective is to increase fleece weight and wool quality, reduce fibre diameter, increase fertility, maintain bodyweight and lift internal parasite resistance.

A selection index was developed to rank rams and ewes.

All progeny are recorded for fleece weight, fibre diameter, faecal egg count, weaning weight, hogget bodyweight and testicle size. This data is combined with a rigorous visual appraisal.

Sheep are selected for freedom from fleece rot or other faults, superior constitution and frame characteristics, wool with superior character and style, and skin structure.



The annual ewe replacements for the nucleus are selected on a 50:50 basis from the nucleus and participant flocks. The top 1% of maiden ewes are selected for the nucleus. About 30% of ewe hoggets bred in the nucleus are retained.

Links have been established with the New England Fine Wool Merino Sire Evaluation programme by the use of semen from sires involved. This will enable the Walcha group to benchmark their sires and monitor the genetic progress of the nucleus relative to other studs. Semen from the nucleus bred sires has been retained for later use to measure the genetic progress achieved in the nucleus. Rams have been involved in progeny testing programmes in client flocks for comparison with other local fine wool studs. Several members of the group have also entered teams in the Walcha wether trial to compare other bloodlines. Despite a drought from 1990 to 1996 and depressed wool prices, the Group has succeeded in meeting its primary breeding objective. Members report benefits of working and planning together, realising a common aim to breed better sheep and learning to profit from their ability to supply a specified product to the changing wool textile market.

PARASITES OF THE HORSE

By Caroline Lamb

In the Falklands there are both external and internal parasites thriving on horses.

The only external parasites here are lice. Lice can occur on all body areas, but, due to self-grooming by the horse, are more commonly seen on the head, neck, mane or tail. Infestations are usually seen at the end of winter when the horse has a long coat and has often been on poorer pasture.

Signs of infestation are: roughened hair coat, scratching and poor body condition. In young animals lice may also cause stunted growth. Infestation is confirmed by seeing with lice moving through hair, or their eggs (nits) attached to the hair fibres.

Transmission occurs by contact between an infested horse and a clean one. Horse lice are specific to horses, so are not transferred between cattle or other species. Some horses seem to be highly susceptible to lice - these are termed 'carriers' as they are more often the ones that spread the lice.

Treatment involves dusting the horse with an effective louse powder. Repeat treatment is needed two weeks later to kill any live ones that have hatched from eggs. Care must be taken when handling these products as they are toxic - gloves and a face mask should be worn. Similarly, blankets, brushes and halters should be treated. They can be soaked in boiling water.

The internal parasites are varied. There are several different species of worm, each adapted to their own bit of the horse. Some live in the lungs, others in the stomach, small intestine, large intestine etc.

While the adult worms cause damage, and some more than others, the larval stages can be just as lethal. For example, in the life cycle of Strongylus *vulgaris*, after the horse eats an egg from the pasture, a larval stage develops. This larva then migrates through the blood vessels which supply the intestines. A large number of larvae can cause blood clots or blockage of the blood vessel, so leading to death of part of the gut wall and hence rupture of the intestine.

The effects of worm infection are usually greater in foals and yearlings as some immunity develops as they age. Infection in youngsters will result in ill-thrift, diarrhoea and even death. However, all ages of horse are potentially at risk which was clearly shown a few weeks ago when a 5 year old camp pony died due to a very high worm burden and the subsequent complications.

To prevent health problems from worms, horses should be drenched at least twice a year (in Autumn and Spring) and at any other time when grazing a heavily contaminated paddock such as the Stanley Common or a settlement paddock often used for horse grazing.

Obviously all the horses in one camp should be drenched at the same time. Expectant mares should be drenched about a month prior to foaling to reduce contamination of the paddock the foal is born into. Foals should be drenched every 8 weeks until 6 weeks of age.

NOTES ON TREE PLANTING POSSIBILITIES IN THE FALKLANDS.

By Dr Alan Low

During my October visit to the Islands, I was very impressed by the widespread interest in tree planting for shelter and amenity and in the raising of trees from seed. I hope that during meetings and discussions both in camp and in Stanley I was able to provide reasonable answers to most of the many sensible questions which were being asked. I will be able to give some further advice during my next visit in April/May 1998 but in the meantime it may be helpful if I summarise briefly what is involved in trying to establish trees in the Falklands.

The combination of high average wind speed, low rainfall and typically shallow, peaty soils makes it difficult to obtain satisfactory growth of trees and shrubs except in unusually favourable circumstances - for example, in established gardens or in other sheltered locations. It will rarely be practical to think in terms of sheltering new building sites unless largescale planting is possible. The number of tree and shrub species which can tolerate open camp conditions is small; and the more extreme any of the three major factors, the smaller is the number of species which can be considered and the poorer the prospects of obtaining satisfactory growth. The more that can be done to obtain improved planting site conditions, the greater will be the likelihood of success (for example, choose a site with at least some topographic shelter from the west or in the lee of a large building, with above average fertility and moisture conditions; erect shelter fencing; prepare planting pits thoroughly). For success on ground which has been badly disturbed and compacted during building operations, particular care will be needed to improve soil conditions prior to planting. Other than in existing gardens, it will usually be worth incorporating a small handful of a slow-release phosphatic fertiliser in each planting pit.

The two tree species which are best able to tolerate Falklands conditions are Macrocarpa cypress (*Cupressus macrocarpa*) and Alaskan origins of Lodgepole pine (*Pinus contorta*). As can readily be seen in many locations, Macrocarpa cypress can be used both as a tree and as garden hedging; however, it should not be used on deep peat sites. Other promising tree species are Austrian pine (*P. nigra* variety *nigra*), Bishop pine (*P. muricata*), Skeena River origins of Lodgepole pine, Radiata pine (*P.radiata*), and the South American Southern beeches Ñire and Coihue (*Nothofagus antarctica* and *N. Betuloides*). (In the past, Sitka spruce would have been included in the list but can no longer be recommended because of recurring damage by Green spruce aphid.)

On all but extremely sheltered sites, achieving acceptable results requires planting in sizeable groups or belts. (Where a belt is being planted in camp to provide shelter for sheep, the recommended minimum size is 300m x 20 rows of trees, but much smaller dimensions can be considered in less testing locations). The spacing between trees should not exceed 1.5 - 2.0 metres, in order to promote the early development of mutual shelter. Planting of isolated specimens or using wide spacing within groups is very unlikely to give success on open land.

In the most sheltered and more fertile conditions usually found in the vicinity of established gardens and houses, the range of potential tree and shrub species is considerably greater. Amongst those worth trying are:- Leyland cypress (*x Cupressocyparis leylandii*), the Southern beech Lenga (*Nothofagus pumilio*), various (*Salix*) species, White poplar (Populus alba), Rowan and Whitebeam (*Sorbus* species), Elder (*Sambucus nigra*), *Escallonia* species, *Berberis* species including Calafate, New Zealand daisy bush (*Olearia* species), Flowering currant (*Ribes* species), Native box (*Hebe elliptica*) and other *Hebe* species, and New Zealand flax (*Phormium tenax*).

On most sites, planting should preferably be done in early winter, when soil moisture levels are higher than in spring. Young trees must be properly hardened-off and well-balanced, with sturdy stems and good fibrous root systems. In general, good results will be obtained by using trees no more than 30cms (12 inches) in height. Planting large trees in the hope of obtaining a quicker result will generally result in failure.

Suitable fencing is needed to exclude sheep, cattle, horses, hares and rabbits, all of which can cause severe damage to young trees. Any shelter fencing must be repaired as necessary until trees are established. An area of about one square metre around each tree should be kept weed-free for the first 3 - 5 years by means of hand cultivation or very careful herbicide application. Strimming is not an effective alternative and may cause serious damage to tree stems.

Most of the tree species which I have listed above can easily be grown from seed and some can be raised from cuttings. Outlining methods for doing so would make this article too long and could perhaps be covered at a later date. The only point which I would like to emphasise just now is the desirability of obtaining seed from a specialist forestry seed supplier such as the British Forestry Commission, in order to be sure of obtaining correctly identified seed origins.

I look forward to hearing about the future activities of the recently formed "Tree Group", and to further discussions with those of you who are contemplating tree planting for farms or garden shelter.

BASIC RULES FOR CATS WHO HAVE A HOUSE TO RUN!

From Lynn Blake, Little Charters

1. DOORS: Do not allow closed doors in any room. To get doors open stand on hind legs and scratch with forepaws. Once door is opened it is *not* necessary to use it. Stand half way in and out, and think about several things. This is particularly important during very cold weather, rain or snow.

2. GUESTS: Quickly determine which guests hate cats the most. Sit on *their* lap and if you can arrange to have jellymeat on your breath, so much better.

When rubbing against trouser legs, select fabric colour which contrasts well with own fur, for example: white furred cats go to black and vices versa.

Treat guests who claim "I love kitties" with disdain, apply claws to stockings or have a quick nip of an ankle.

When walking among dishes on the dinner table, look surprised and hurt when scolded. Convey the idea, "But you allow me on the table when company isn't here".

3. WORK: If one of your humans is sewing or knitting and the other idle, stay with the busy one. This is called *helping*, otherwise known as *hampering.*

Practice the following: When supervising cooking, sit just behind the left heel of the cook. You cannot be seen and thereby stand a better chance of being stepped on, picked up and consoled. To help book readers, get in close under the chin, between the eyes and book, unless of course, you can lie across the book itself.

4. MEALS: When fed always act disappointed, sniff at the food a little, then walk away. Never drink from your water dish, use the shower or bath instead.

5. PLAY: Get enough sleep in the daytime, so you are fresh for running around and jumping on your humans' bed between pm and am. This is also a good time to practice meowing loudly.

FINALLY: Begin training early and you will then have a smooth running household. Humans need to know the basic rules. They *can* be taught if you start early and are consistent.

CATTLE BREEDING PROGRAMME

By Robin Thompson

We have now almost accumulated sufficient breeding female cattle to enable the next phase of the beef development programme to commence. This phase will involve using the females we have acquired to provide us with a good indication of the breed of cattle best adapted to the islands.

Our female herd is comprised of animals from a large number of sources within the islands so it should represent the genetic diversity and thus environmental adaptation of the Falklands herd. Obviously, we cannot evaluate every breed so we have selected four namely, Angus, Hereford, Shorthorn and Galloway. These breeds were chosen because of their proven adaptation in similar environments, their ability to produce finished animals with a carcass weight of 420 - 450 kg and because there is a wide genetic pool particularly of the first three breeds. On the world stage Galloway's as a breed are no where near as well developed as the Angus, Hereford or Shorthorn. We decided to include them in this trial because they represent a number of less popular breeds that reputedly do well in harsh environments.

There is currently a large research project being conducted in Australia with the aim of finding ways to make genetic comparisons between beef breeds. This program is a much larger version of the one we hope to initiate here and includes the Angus and Hereford breeds. We were given the opportunity to link in with this programme and use some of the same bulls. This substantially reduced the cost of semen and gave us access to some high quality bulls.

We have selected three bulls from each breed and have purchased fifty semen straws from each bull giving us a total of 600 straws which is sufficient to artificially inseminate the national herd three times. These bulls have been selected because they produce calves with lower than average birth weights but grow at a rate higher than average for their breed. This means that when these bulls are mated to our cows calving difficulties should be minimised but growth performance of the calves should be good.

The cows will be synchronised and artificially inseminated in February with the assistance of a specialist vet from the Department of Agriculture in Chile. Once born the calves and their mothers will be run together until weaning and their growth weight assessed. Post weaning it is hoped to run all the progeny together until they reach slaughter criteria.

Breeding is obviously a slow process but the results of this work should lay the foundations for future cattle breeding directions as well as providing animals that can be used in grazing management and other studies.

CATTLE YARDS COMPLETED

After carting over 300 trailer loads of gravel, erecting 135 posts, putting in over 1400 bolts, mixing 2 tonne of cement, using over a mile of timber (if the boards were placed end to end) and 750 man hours we now have a permanent set of cattle yards. This may sound like a lot of effort and resources but the unit will allow cattle to be handled with a minimum of effort and in safety. The essential elements for the small beef farmer is a crush, race and forcing yard. Looking at our design and layout may help you see how to integrate these features into existing yards.

Looking at our design and layout may help you see how to integrate these features into existing yards.

Messrs Rex Mckay and Garry McGill both put in a lot of effort to make the job run smoothly and meet our time deadline. Completion of the yards have allowed us, for the first time, to handle the cattle we have accumulated. The first management tasks we undertook included identifying all the animals with ear tags, dehorning, castrating and testing for TB. Early next year our management plan includes pregnancy testing and heat synchronising prior to artificially inseminating the females mature enough to breed. All these practices are considered routine and 'best practice' in a commercial beef production system and a good handling system is essential for them to be carried out.

Completion of the yards is the first step in the overall farm development plan for Brenton Loch and Saladero. Over the next few years the yards will integrate into a lane way system, paddock sub division and pasture improvement program.

We plan to host an open day at the yards in early February so as producers can see all the developments at Brenton Loch and with the National Beef Herd.

WEST FALKLAND RAM & FLEECE SHOW 1997

By Nigel knight, Coast Ridge farm

This will be held in Coast Ridge farm wool shed at Fox Bay Village on 29th December, 1997.

All times are in Stanley times:

Entries may be sent to Fox Bay **c/o N. Knight, Coast Ridge** farm before the event, or brought to the wood shed on the day between 9.00am and 1.00pm.

Judging will commence at 2.30pm - 4.00pm and by public ballot.

Prizes will be presented at 6.00pm in the wool shed by H.E. the Acting Governor.

PRIZE LIST:

Class 1: Full Wool Ram Hogget.

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

Class 2: Full Wool Shearling Ram.

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

Class 3: Full Wool Mature Ram.

1st prize: Falkland Islands Wool Marketing Challenge Cup. A replica + £40 presented by Falkland Landholdings Ltd.
2nd prize: Prize donated by the Falkland Islands Company Ltd.
3rd Prize: £50 presented by Port Howard farm.
4th Prize: £25 presented by Little Chartres farm.

Class 4: Hogget Fleece.

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

Class 5: Any Fine Wool Fleece other than Hogget.

1st prize: 'Governors Cup' challenge cup presented by H.E. the Governor + replica donated by Newton Investment Management Ltd. (FIG's investment managers).
2nd prize: £75 donated by Newton Investment Management Ltd.
3rd prize: £50 donated by Newton Investment Management Ltd.
4th prize: £25 donated by Newton Investment Management Ltd.

Class 6: Any 'B' Type Wether fleece.

1st prize: Engraved Challenge Cup presented by Coast Ridge farm + replica & £25 presented by Ursula Wanglin.
2nd prize: £60 donated by F.I. Sheepowners Association.
3rd prize: £40 donated by F.I. 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.

Rosettes will be presented for 1st, 2nd, 3rd & 4th prize winners in all six classes. A supreme champion rosette is also given to the champion ram. These were all provided by Jim McAdam, Department of Agriculture, Northern Ireland.

A silver challenge cup + £50 for the fleece with the highest commercial value presented by the Falkland Islands Development Corporation.

For 1st, 2nd & 3rd prize winners in Class 3 trophies are donated by Peter Short, Falkland Supplies.

A challenge cup for the farm with the most points in all classes is donated by Mr Owen Summers.

Additional Competitions:

The 'Guess' the sheep weight competition, £25 prize for the 'Best Guess' from the Falkland Islands Development Corporation.

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 Mrs Griz Cockwell have kindly knitted sweaters, these items will be auctioned for the show funds after the prize giving.

FIGAS have once again generously agreed to fly fleeces free of charge.

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 to the organisers before 25th December 1997, so that sufficient pens/tables can be prepared.

Please note that fleece entries should be skirted fleeces only. All neck, belly and stained wool should be removed before the fleece is rolled.

The fleece with the highest commercial value will be judged on the day by two experienced 'Wool People'. It will be selected from all fleeces exhibited at the show using the following criteria.

Actual greasy weight x estimated yield x estimated micron x current clean price.

These 'People' will also judge the champion ram class. ***The judges decision will be final.***

MERRY CHRISTMAS
&
HAPPY NEW YEAR

TO ALL FARMERS IN THE FALKLANDS
AND READERS OF THE "WOOL PRESS"

FROM THE STAFF OF
The Department of Agriculture

FALKLAND ISLANDS WOOL MARKETING

from Peter Marriot

During the series of Wool Workshops held throughout the Islands during November 1996. I did indicate that if possible I would report to you any comments we received from regular users of Falkland wool.

May I first comment that once again we have completed the season without receiving a single complaint from any client whatsoever.

Considering we have sold:

Greasy bales to local clients;
Greasy blends to Europe and the far east;
Wool tops to local clients and the far east;
Scoured types throughout the world.

Not one complaint has been received - ***We must be doing something right.....***

Speaking to local clients they commented:-

1. The classing generally was acceptable and quite satisfactory.
2. The preparation was clean, well skirted and an improvement.
3. The grading showed some improvement. Generally with very few mixed fleeces of different quality within the bale.

Altogether an excellent result from the season.

I do feel that the workshops and the hardwork and willingness to learn by all parties involved has generally improved the situation.

However, as I have said on many occasions. No complaints but no slipping of standards or complacency. Throughout the world wool suppliers are trying to improve on packing, classing, preparation and grading. We must not be left behind.

We have a super product.
Keep up the wood work.
Seek always to improve.

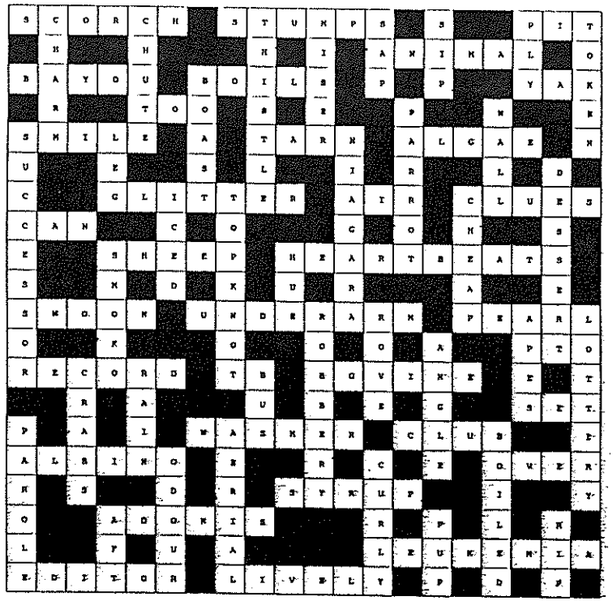
CONGRATULATIONS.

THE SOLUTION

TO

NOVEMBER'S

CROSS WORD



SHEEP AND ELEPHANTS?

by Sean Miller

If you read Gordon's article on the digestibility of grasses a couple of months ago you might have wondered what it all meant, and how can that sort of information be useful to you. The real value of knowing that type of information depends on understanding how sheep (and cattle) digest what they eat. The real reason behind what makes sheep work is also the reason that sheep are suited to the Falkland's environment.

Sheep and cattle belong to the group of animals called *ruminants*, or more technically, *polygastrics*. In short, they have more than one stomach; in the case of sheep and cattle, they have four. Other animals that belong to this group are camels, guanacos, llamas and alpacas, and even elephants. On the other hand, animals such as horses, pigs, and humans are *monogastrics*, i.e. they have just one stomach.

When it comes to living on poor quality grasses that take a long time to digest, the four-stomach arrangement is just the go. In particular, the first stomach is the real secret. Having cut open a sheep or cow you would have noticed the first stomach (paunch or rumen) as the large bag with the horrific smell when it is accidentally nicked with the knife. It is this smell, or more precisely the microbes that make this smell, that enable sheep to survive.

After eating grass, it passes into the rumen where digestion first starts. Instead of the grass being digested by acids, as is the case for horses and humans, billions of micro-organisms (bacteria, fungi and protozoa) get stuck in and digest the grass themselves. This occurs in an environment that is without oxygen. Under these conditions the characteristic smell of the rumen is produced and indicates that digestion is progressing well. Consequently, when sheep eat, they are actually feeding the microbes and not themselves. Sheep get their nourishment when the microbes are washed into the other stomachs, and the acids in those stomachs digest the microbes. In other words, sheep live off microbes and not grass at all!

This system works well for sheep as it allows them to digest plants that would not normally be digested if they only had one stomach. The plants stay in the rumen for many hours and allow the microbes to extract most of the nutrients. It also allows sheep to eat many plants that would be toxic to monogastrics.

To work out how digestible different plants are, these rumen microbes are placed in with the plant samples for set periods of time, and the before and after weights of the plants are measured. The difference in weights before and after is the measure of digestibility. Thus, for highly digestible plants, relatively more of the plant is used by the microbes during this period. These types of plants are digested quicker, contain more nutrients, and pass through the animal faster. As a result, less of these plants are required to maintain growth compared to plants that are of lower digestibility. From a scientific viewpoint, this sort of data can be used to estimate how animals are likely to respond to various diets, changes in environments and climates, and to different levels of exercise.

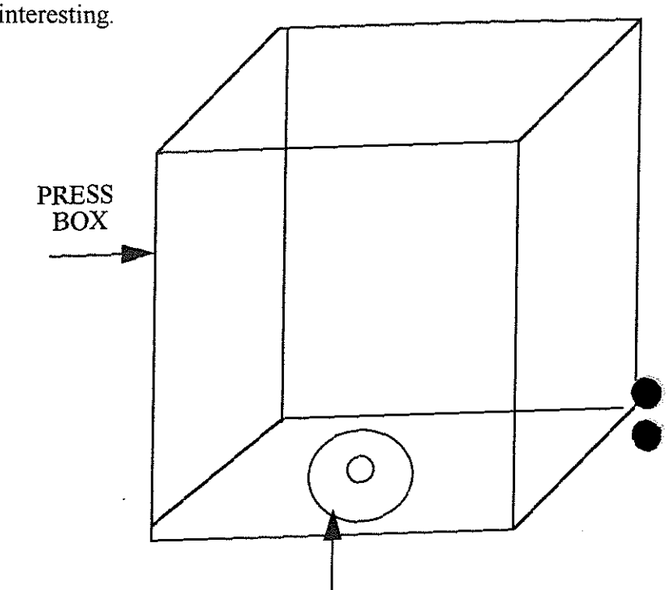
So when you next look at a few of those green and brown leafy things out in camp, think how good they are for the microbes: look after them and they will look after you and your sheep.

HOME MADE IDEAS FOR WOOL PRESSES

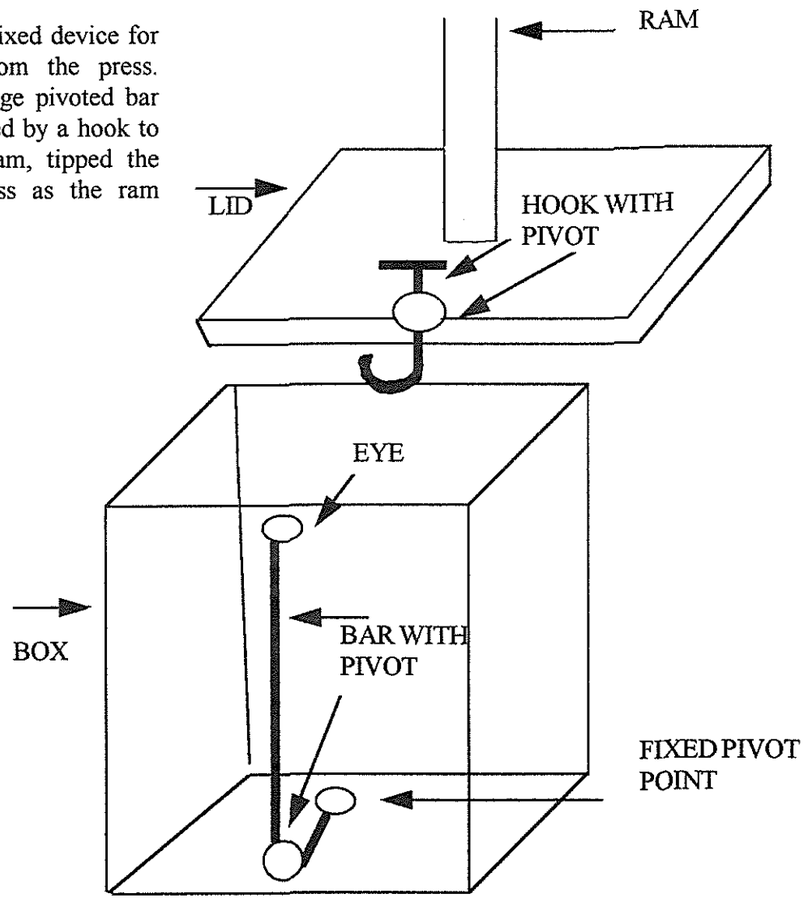
By Owen Summers

With the shearing season now upon us, I was reminded of two homemade wool press ideas that I saw which some farmers may find interesting.

Whilst looking through a wool shed I happened to glance into an empty press and noticed a disc from a set of disc harrows lying in the bottom of the press (convex side uppermost). When I enquired as to its purpose, I was told that this helps to prevent the bottom of the bale becoming rounded making a neater bale but also more importantly the uneven bottom makes the bale easier to tip out of the press.



The second was a fixed device for removing bales from the press. This was a two stage pivoted bar which when attached by a hook to the base of lthe ram, tipped the bale from the press as the ram retracted.



VINTAGE TRACTORS

From Nick Pitaluga, Salvador Farm

As a result of Agricultural shows, rallies and junkyard visits whilst in the UK, one of my side interests has become that of elderly farm tractors, particularly the traction improved conversions, four wheel drives and crawlers.

A considerable number were brought to the Falklands years ago and I would be very interested to learn more about what they were, if they still exist and more interestingly, if the current owners still use them and if there is sufficient interest, an article for "Old Glory" or other similar magazines may be possible.

The tractors I am particularly interested in, and seeking out if you have one or know of any, either on another farm, dumped or wrecked during/after the conflict are the following:

Fordson crawlers (2 at Teal River, 1 at Home Farm and Johnson's Harbour).

Fordson Roadless 4wd conversions, with the small front wheels. (1 at Douglas Station, Port San Carlos and Stanley).

Fordson County Skidsteer 4wd (used to be 2 at Goose Green and 1 at Fox Bay West).

Fordson County 4wd with front wheel steering (used to be 1 at Fitzroy).

Ford/Roadless "Ploughmaster" conversions with the roadless front axle/smaller wheels. (Bombilla, Little Creek, Maryfield and Port Sussex).

Any other old tractors, dead or alive, which are of considerable interest like the DB Cropmaster at Douglas and the Ramsomes on Sea Lion Island.

Please telephone, fax or write to me if you can help.

SNIPPET

FINE WOOL? - EAT YOU HEART OUT!!

Donated by Malcolm Ashworth, Stanley Dairy.

Source: ***Farmers Guardian, October 24th 1997.***

A top record price for a Blackface lamb of £85,000 was paid for this ram from Connachan Farm, Crieff, Perthshire, at the Lanark sale.

WOOL YIELD AND YIELD TEST CERTIFICATES

by Robert Hall

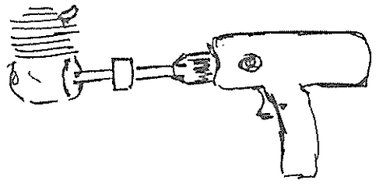
Raw or greasy wool off the sheep's back contains not only wool fibres but also impurities such as grease, mineral and vegetable matter. Clean wool however is the traded commodity which is of interest to buyers, with prices quoted in "pence/Kg clean". The objective link between greasy wool and clean is the yield or the percentage clean wool within the greasy wool.

An accurate yield test is extremely important to both the seller and the buyer. Before the advent of the International Wool Textile Organisation's (IWTO) standard yield tests, the industry usually relied upon visual estimates of greasy wool yield, in which case it was in the interest of sellers to over estimate the yield and reversely in the interest of buyers to under estimate the yield. Over the last three decades, the industry has increasingly relied upon independent tests, with results accepted by both the seller and the buyer. All Falklands wool is sampled and tested by SGS Wool Testing Services in Bradford, who provide independent and objective test results for specific bales. (Test results for bales not specified on a particular certificate are obviously invalid. One year's test results are clearly not a valid basis against which farmers should ever sell wool in subsequent years).

The IWTO Yield test measures the "Wool Base", which is defined as the oven dry weight of the wool fibre, free of all impurities. Normally wool cannot exist in this state outside laboratory conditions because it absorbs moisture form surrounding air. Yield test results therefore calculate a specific "regain" e.g. 18% to allow for the moisture content usual in ambient conditions. The IWTO Schulmberger Dry Combed Yield predicts the yield after the wool has been combed on a Schlumberger comb. It is the test result from SGS ("who have no manufacturing, trading or financial interests which could compromise their independence") which is used to safe guard farmers in the Falklands, ensuring that "wool produced is wool sold".

ELECTRIC DRILL TURNS STIFF ENGINE

Source: Practical Farm Ideas



Leave a small engine like that on a lawn mower, cultivator or chain saw idle for too long and the thing seizes solid. A Pembrokeshire engineer has avoided the job of pulling them apart and rebuilding and had got these engines going with minimal spanner work. He takes the plug out and pours paraffin down the cylinder, leaving it there for as long as possible.

"After a while it's generally possible to turn it by hand, but slowly - they remain very stiff," he says. "I use my variable speed drill to loosen the engine off. I fit a nut on the end of the crank shaft and screw a bolt into it as well. The bolt goes into the chuck of the drill, which I start as slowly as possible, adding more paraffin from time to time to keep things lubricated. After a while the drill will have the engine flying round. Replace the plug and it should start without any trouble. It's a great time saver, and you haven't the problem of replacing gaskets, setting timing and so on".

IF NOT WHITE CLOVER, THEN *WHAT*?

By David Parsons

Although White Clover is the most commonly found pasture legume in the Falkland Islands, it has a number of shortcomings:

1) It requires high fertility and pH, and makes a limited contribution in poorer soil. It makes an appearance in settlement fields which have a long history of stocking and cycling of nutrients, but it is difficult to establish in a new re-seed.

2) It is self infertile, and must spread vegetatively; therefore, spread is patchy.

3) It is not tolerant of low moisture levels. White clover can often be observed in the damp hollows, but not a few metres away where the soil is drier.

Where White Clover is growing it can be making a valuable contribution. However, it is not well enough adapted to the conditions here to ever make a large scale contribution without the addition of much lime and fertiliser. The aim of the Legume Introduction Programme is to identify other legumes that are more suited to the Falkland Islands than is White Clover. So where are we up to with the Legume Introduction Programme?

The initial stage of the Legume Introduction Programme has been quite successful. During spring, approximately 140 types of legumes were germinated, grown as seedlings, and transplanted at Fitzroy, Bertha's Beach, and Mt. Kent. It is too early to guess which may be the best, however their growth over summer will prove interesting, and their survival over next winter even more so. There are however a number of species that we expect will do well, because of experience here, or in similar climates in other parts of the world. These include Russel Lupins, Lotus, and Caucasian Clover.

Russel Lupin (*Lupinus polyphyllus x L. arboreus*)

Who would of thought that this popular garden flower could hold great potential for agriculture! Russel Lupin is to a certain extent tried and tested in the Falkland Islands: it is able to tolerate the acidic infertile soils, it re-grows after dying back during winter, and it produce good amounts of seed. It can be very sensitive to drought, competition, and grazing during the first years, but thereafter it is very persistent, productive and tolerant of periodic hard grazing, with stands thickening up by re-seeding. Experience in New Zealand has shown that Russel Lupin has low summer stock acceptability, however, this is compensated by total feed production. After comparing it with the growth of other legumes, we need to determine the best methods of establishment, and the optimum time to graze it, as Russel Lupin would not persist if continuously stocked. Currently more than fifteen types of lupins are being evaluated, including Russel Lupin.

Lotus or Big Trefoil (*Lotus uliginosus*)

In numerous parts of the world, Lotus has established itself as a pasture legume for areas too acid (pH<5) for good White Clover growth. Lotus is commonly found in the Faroe Islands, which are similar to the Falkland Islands in terms of soil and

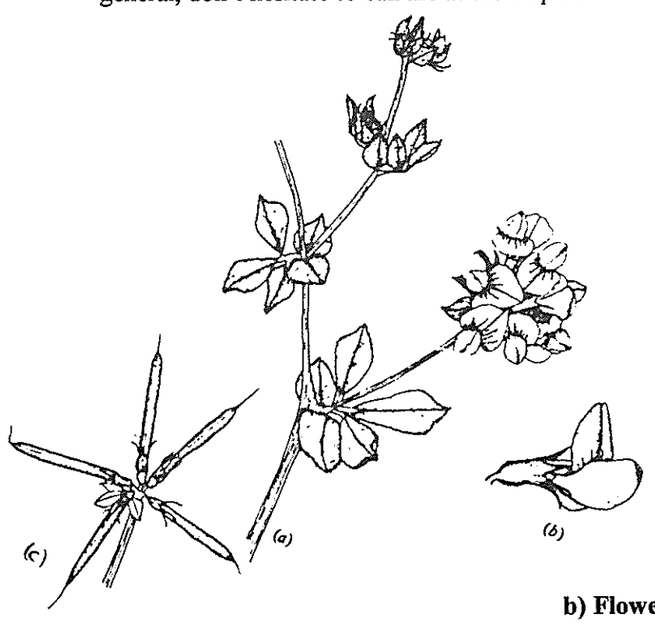
temperature. Areas where Lotus grows better than white clover tend to be wet, and of low fertility. In spite of claims to the contrary, Lotus grows poorly without fertiliser on acid infertile soils, but can survive and continue to grow under these conditions because of its superior ability to compete with other vegetation. As well as having a strong tap-root, Lotus spreads vegetatively by underground rhizomes, particularly during the Autumn. It tolerates close grazing but should be rotationally grazed to provide the spelling it needs to achieve its full potential production. Currently 10 lines of Lotus are being evaluated.

Caucasian Clover (Trifolium ambiguum)
When you see the specimens of this plant that we have in pots at the Department of Agriculture, you'll understand why we have high hopes for Caucasian Clover. It appears to cope with the climate very well, surviving winter, and producing good growth from early spring onwards.

Although it is unlikely that Caucasian Clover will produce any seed in the absence of bees, it spreads extensively by underground rhizomes. During establishment it diverts much of its energy into its massive root system, and it is therefore slow to establish. However, once established it is very persistent, able to tolerate drought, waterlogging, frosts, grazing and low soil fertility. Currently 8 lines of Caucasian Clover are being assessed.

Although it is early days in the Legume Introduction Programme, I am confident that we will be able to find a number of legumes that can tolerate the climate, the pH and the low soil fertility of our soils here.

If you have any questions about the Legume Introduction Programme, or legumes in general, don't hesitate to call me at the Department of Agriculture.



Lotus (*Lotus uliginosus*)
a) Plant with leaves and flowers
b) Flower - Deep Yellow tinged with red
c) Seed Pods

THE REAL ARGUMENTS - HEATHER AND GROUSE VERSUS SHEEP

Source: Sheep Farmer September/October 1997

A water shed is nearly upon us in the long running debate about the heather uplands in the UK. Back in 1989 long before any other farming organisation really studied the interface of conservation and the grazing ruminant, the NSA published its consultative report "Conservation and Sheep Farming". At the time it appeared to have little impact. What is now clear however, it that its basic analysis of the historical importance of sheep as a tool for conservation on a wide variety of habitat types (not just heather) was both opportune and basically sound. We were ahead of the pack.

Following the report NSA became involved via its Environment and Conservation Committee with the Heather Trust, an independent charity dedicated to researching and informing moor owners, graziers and conservationist of the merits of balanced grazing, legal predator control and muir management techniques. NSA has a seat on the Heather Trust Steering Committee and is embarking on a process of cross-fertilisation of ideas, expensive and reciprocal visits to sites where sheep grazing and heather management demonstrate their inter-dependence.

For that is what is at the root of the argument. Botanical and floristic balance, which depends more than anything else on getting the grazing sheep raking their runs at a level consistent with the optimum vegetation growth patterns - this is the key to maintaining wild-life (including grouse, open landscape and traditional farming. All else flows from this, and the role of the humble sheep; much derided these days as a result of a few cases of over-grazing, remains the beddrock of moor management.

On the basic matrix of sheep (and cattle) grazing muir management and legal predator control had now been bolted a range of peripheral arguments about access, raptor control, the role of headage payments under government support schemes and event the fact that grouse shooting, like hunting, may become politically incorrect and be legislated out of existence. Strangely, the RSPB, a lead organisation in the debate with nearly 1 million members finds itself torn in two directions. It recognises that well managed grouse moors are the best habitat for a range of uplands birds: curlew, lapwing, golden plover, hen harrier etc, yet cannot align itself to the politically incorrect concept that shooting a surplus population of birds is essentially necessary for the greater good of habitat management or if it does accept the principle it has not got the constitutional freedom of courage to state it openly. Nor does it really understand the historical role of the grazier.

All raptors are protected species under 1981 the Wildlife and Countryside Act, that is a clear starting point, yet moor owners who have invested heavily in developing grouse stocks (the capital value of a good driven grouse moor is £3,000 per brace) worry that the RSPB in its crusade to increase areas of heather moor (partly by restricting sheep numbers) will, in the end, achieve high densities of raptors at the expense of densities of grouse which will in the end decline to a level where moor owners will no longer invest in a day-to-day muir management, in other words a downward spiral in habitat quality. And tax-payers money to compensate for fewer sheep or grouse may not, in the end, be cost effective.

Elliot Morley, the new Labour Minister for rural affairs, who is on the council of RSPB knows all details of the debate but is he well briefed on the farming issues? Has he a clear understanding of the pivotal role of sheep in the complex equation that must be solved? Is he too distracted by the clamour for unrestricted access by ramblers or the straight-jacket of the RSPB's own constitution?

One thing is certain. The hills remain and the hills have to be managed. Dereliction and neglect both of farming and of the habitat is not what anyone wants. At the heart of the problem is the need to maintain traditional breeds of sheep and cattle as the main tools to help us all enjoy and benefit from the once semi-wild hill areas. The NSA and the Heather Trust see eye-to-eye on most basic issues. Elliot Morley would be wise to make us his first port of call when the times comes for any changes in the rule book.

This article was written by Keith McDougall, Chairman of the NSA (National Sheep Association) Environment and Conservation Committee.

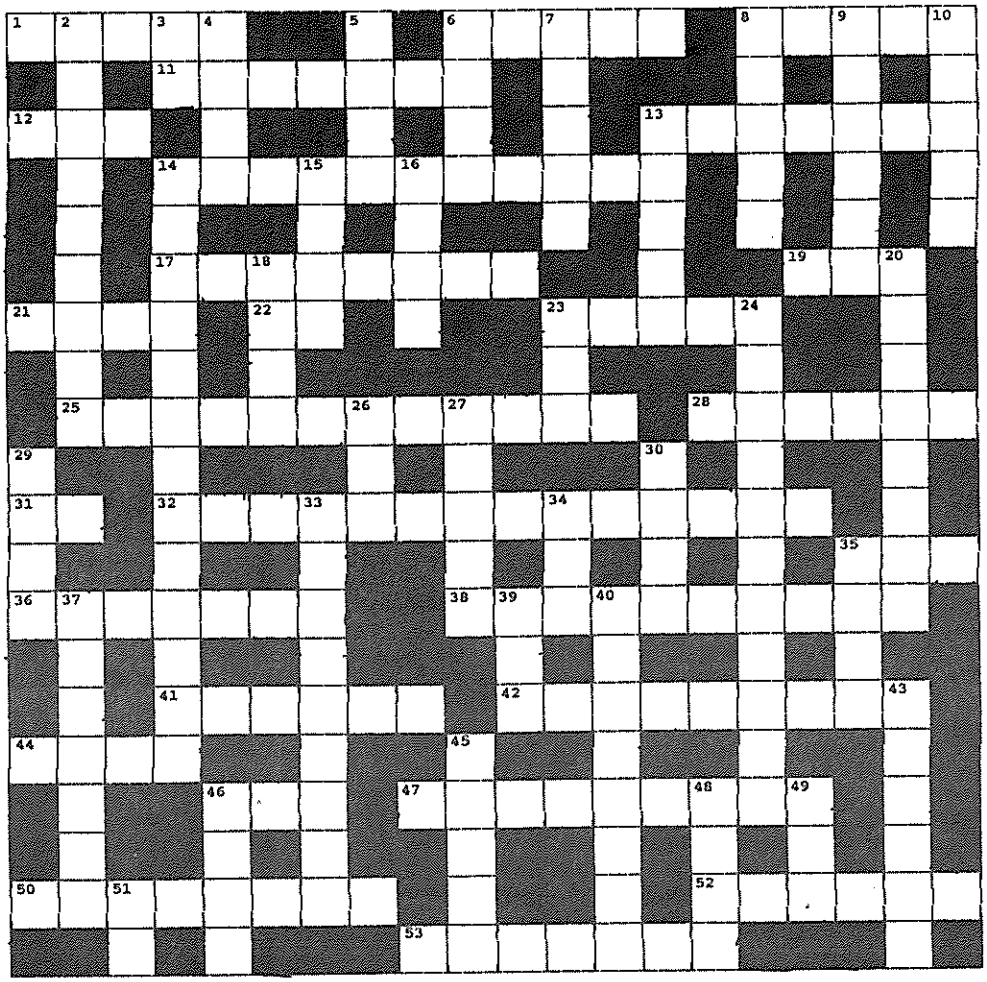
DECEMBER CROSS WORD & CLUES

ACROSS

1. ILLNESS WITH A DEEP COUGH
6. HEAVY HORSE
8. EXPLOSIVE DEVICES
11. A PUNCHY HORSE OR CHRISTMAS LAMB
12. CURED LEG OF PORK
13. TRAVEL ROUTE
14. FIRST EVER RACE FOR HORSES
17. SAGE AND ONION FOR EXAMPLE
19. OLD DEPARTMENT OF AGRICULTURE INITIALS
21. HINDU GARMENT
22. STREET OR SAINT ABBREVIATION
23. FAMOUS FABLE TELLER
25. LOVELY ON CHRISTMAS PUDDING
28. THE PERSON YOU ARE ENGAGED TO
31. BETTER THIS THAN OUT!
32. THE RIDER WITH THE MOST POINTS
35. NOAH'S BOAT
36. AREAS OF LAND SURROUNDED BY WATER
38. ROYALTY WHO MADE A JOURNEY TO SEE A BABY
41. TYPE OF SLEEVE STYLE
42. FIVE IN THE CHRISTMAS CAROL
44. MILK PROVIDERS
46. SMALL CHILD
47. THIS BIRD LIVES IN A PEAR TREE
50. SANTA'S SLEIGH PULLERS
52. THE FALL
53. BAD REACTION

DOWN

2. TRADITIONAL F.I.CHRISTMAS DINNER
3. ME AND YOU
4. WILD CAT
5. BETTING ORGANISER
6. RUBBISH CONTAINER
7. JUST RIGHT
8. TIED UP
9. CATTLE FEED TROUGH AND JESUS' BED
10. FASHION
13. CHRISTMAS CELEBRATES HIS BIRTHDAY
14. PARTY OR GYMKHANA GAME
15. STUPID
16. USUALLY HIT WITH A HAMMER (SOMETIMES THE WRONG ONE)
18. SECOND HAND
20. CHRISTMAS BANGERS
23. BEER
24. LAST DANCE OF CHRISTMAS SPORTS
26. FLAT BREAD CAKE
27. SPORTING FISH IN THE FALKLANDS
29. NEW ZEALANDER
30. LAND MEASURE
33. CHRISTMAS KISSING GREENERY
34. GLASS CONTAINER
35. IN A STATE OF CURIOSITY
37. DICKENS' MISER
39. SQUEEZE AFFECTIONATELY
40. DEVELOPING EQUIPMENT
43. SMALL PRAWN
45. CHRISTMAS SONG
46. ORDERLY
48. CART
49. DEVOUR
51. INFORMATION TECHNOLOGY



Compiled by Mandy MCleod