The Wool Press

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All the regular features and more!

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EDITORIAL

Hi All,

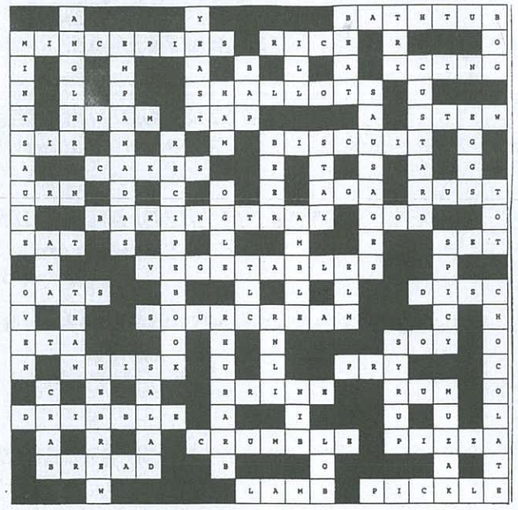
Well, as you will have noticed no January Wool Press in December. The printing office was a tad busy so it had to be left until after crimbo.

On the ET/AI lamb front, still no pictures. I do have a valid excuse though – the Departments digital camera met with a sticky end and is no more. I have taken some photographs with my own camera though which are presently being developed and I will scan these and print them.

Anyone out there who would like to write an article for, or a letter to the Wool Press, please feel free to do so. The greater the input we have from the community the better.

Nyree

LAST MONTH'S SOLUTION



HI FROM THE NEW DIRECTOR OF AGRICULTURE

Firstly a happy and prosperous New Year to all readers.

I would like to pay tribute to Peter Johnston's work in the Department of Agriculture. I have only worked closely with Peter in the last three months but I appreciate how well respected he is with both the farming community and FIG. I am grateful to him for his patience and willingness to involve me in the decision making processes of the department in recent months. He will be a hard act to follow. In fact it takes two to fill Peter's shoes! Neil Judd, who takes on the new post of Senior Agriculture Advisor this month, will be the point of contact for farming advisory matters while I will be responsible for policy, administration and financial matters.

As there is not enough room to move Mineral Resources up the hill I will remain based in my office and Glynis has kindly agreed to work from here as well. Budget management, invoicing and payments will therefore be carried out from the Mineral Resources office from the first week of January. Steve and Neil will ensure that the reception at Agriculture is fully serviced for you, our customers, to access the people and the advice you require. I have scheduled regular meetings with the staff and senior members of the Department so that we can monitor the service we are offering you.

My main task is to steer and assist the very professional team at the Agriculture Department in delivering the ten year strategic plan that Peter leaves as his legacy. This will involve you, the farmer, the RBA, Councillors, FIG, FIDC and others in a partnership to make farming a profitable business in the Islands. During January I will be working on the 2004/05 budget. Some capital funded projects, as you know, end this June but I am hopeful that we can present a good case for Councillors' consideration where the level of service and advice from the Department can be maintained and the capital funding, mainly for pasture improvement, can be spent wisely to bring about increased prosperity.

I look forward to working with you this year. You can phone me on 27322 during the working day (I am here to after 5 PM most days) to discuss any issues that you have or at home on 21084. My e-mail to desk address is prendell@mineralresources.gov.fk

Best regards

Phyl

EXOTICS AND EXCURSIONS

By Zoe Luxton

Apologies for my recent absences – it appears most of Suffolk has been hit by a vile flu/vomiting bug. Before you all start to sympathise about me lying on my death bed however, I will admit that I haven't been ill at all, just working quite a bit to cover for various friends and colleagues that have been wiped out by it. Plus the usual pre-Christmas frenzy (buying Gin) means that my usual vet related ramblings have been replaced with several list of things to do and stuff to buy.

Anyway, regular readers will be well aware that I generally go by the notion that "if it isn't a cat or a dog why bother having it as a pet", so you can imagine I wasn't overly chuffed when I noticed 'Tiny' on the waiting list. Tiny, was indeed a very small pet....a very small Bearded Dragon Lizard to be exact. "What appears to be the problem?" I said looking very knowledgeable about such things, when really the most I know about Lizards is the first 2 verses to Karma Chameleon by Culture Club. Tiny, it turned out was having a skin problem. He had lost the ends to several toes and had some odd coloured scabby patches although he didn't seem particularly upset by this except one of his legs was quite swollen and sore. Lizards, like snakes, shed their skins and it is reasonably common for them to have trouble doing this if their environment is not quite right, so what was happening with Tiny was that his skin was getting caught around his toes and cutting off the circulation basically causing some sloughing. According to the books (which the owner and I were reading together in the consult room!) some discolouration of the skin can indicate bacterial infection also so Tiny was duly dispatched with some antibiotics and the owner instructed to make sure the humidity of Tinys environment was optimal for skin shedding and to make sure he had plenty of rocks to rub against to help shift it. Seems to have done the trick anyway!

The second case of interest involved a chap and his parrot. Luckily Heather is reasonably knowledgeable about birds so this parrot-loving gent always sees her and this particular bird appeared to be drinking and urinating excessively. Suspecting some kidney badness going on, and in a wild fit of insaneness she decided a blood test was the best way to get a better idea of what was going on medically. Much squawking ensued – possibly from Heather as well as the parrot – and then from me when Heather reminded me she was off on hols and "would I be able to ring the owners with the blood results?" Well of course I could RING them; the problem would come when they actually asked me what was wrong with the parrot. Turns out the parrots blood glucose and cholesterol were very high and the lab were very suspicious of diabetes, luckily they were also fairly suggestive that an exotics referral centre was the best place to deal with such an unusual case.....phew.

I have just returned from a little jolly to visit a beloved friend in Gibraltar. I really should have listened more during our chats when she said "it really has been quite wet lately", by the time we got back from our trip up the rock to see the apes we were literally so drenched through we could ring our underwear out. We did get to see a few monkeys though, although they did look particularly wet and fed up but we did get a giggle out of one chap. I was just about to assume "with monkey in Gibraltar" pose for a photo when a large male ape accosted the monkey in question and there was a whole lot of monkey lovin' going on in the background of my photo!! I suppose it proves they are almost human – what else are you supposed to do when it is raining and you haven't got a telly?

£76 PER STEAK AND SELLING FAST

Source – Farm and Country

Foodie fashionistas looking for a Christmas treat will be able to buy the world's most expensive beef in Harrods. The first supplies of European raised Wagyu beef will shortly be available from North Wales producer David Wynne Finch, 33.

In the next few weeks, a 20 year dream will be realised for the Llyn farmer when the first cattle from his 100 head herd are sent for slaughter. It was as a 13 year old boy that Mr Finch, of 700 acre Cefnamlwch, opened a book called Cows of the World and chanced upon a rare Japanese breed called Kobe bred in the US as Wagyu cattle.

Seven animals will be slaughtered this year and 24 next autumn, as 4 years of planning begins to bear fruit. Mr Finch said: "It's a nerve racking time, but exciting too. These will be the first Wagyu cattle slaughtered in Europe."

But just as one project nears completion, Mr Finch is already planning his next – and it's even more ambitious. He wants to establish a new 400 head Jersey dairy herd at Cefnamlwch, ready to start milking in January 2005.

Milk from the New Zealand spring block calving herd will be sent to South Caernarfon Creameries for cheese making. Mr Finch said: "I have a good grass growing farm, so it was a case of matching up its resources to the type of operation we wanted to run. Clearly we are not aiming at the liquid milk market but at the processing sector."

Farming Connect grants will be available but Mr Finch said the sheer size of the project meant that borrowings and investments will be 'substantial'. Plans to expand his Wagyu herd will depend on market reaction. But the signs are promising: In the US where Wagyu beef has attracted celebrity endorsement, the meat sells at £44 for 100grammes – about the same as a Gucci handbag.

In Harrods, Wagyu steaks are expected to sell for £76 each. Mr Finch, assisted by herdsman Emlyn Williams, says demand for imported Wagyu beef at top London restaurants is already outstripping supply.

He has formed a partnership with Dutch producer Wim Claessen under the umbrella brand of Chateaux Wagyu. Continental producers have been looking to cash in on Wagyu's from the US, prompting Mr Finch to sell breeding stock to English farmers. In June, Chateaux Wagyu also began producing embryos for selected partners.

Chocolate brown, with delicate features, Wagyu cattle provide richly marbled meat. Infamously they require constant pampering. Mr Finch's cows, which all have Latin names, are given calorie rich beer from a local pub to increase their appetites. This week they even took supply of their own custom built massage machine, designed like a car wash with revolving brushes.

FOETO-MATERNAL DISPROPORTION

By Stephen Pointing

Don't let this title put you off reading this short article. The words may be long and sound complicated but in plain English they basically mean that the mother can't give normal birth to her offspring either because the baby (or calf/lamb) is too big for the mother's pelvic cavity or the mother is too small to give birth to a normal sized foetus or a combination of the two.

The problem can occur in all animal species but I am raising it at present in relation to sheep and cattle. What causes these problems and what can you as the owners do to help minimise them?

1) Genetic

There is definitely some genetic influence on foetus size. Half the genes are from the father and half from the mother, so it is important when choosing a sire (either by AI or naturally) to choose one that doesn't sire very large calves/lambs if the cows/heifers/ewes are not correspondingly large. With ET this becomes even more important as the surrogate mother is unrelated to the

embryo that is inside her. If that embryo comes from a mating between a large dam and large sire then the chances are that the offspring might be large also. This can cause problems if the embryo is transferred into a small or averaged sized recipient. Care needs to be taken at the outset when choosing what sires to use for AI and what bulls/rams and cows/ewes were used to produce embryos for transfer. This is probably best done by staff within the Department of Agriculture in consultation with the suppliers of the semen or embryos.

2) Choice of dams

You need to carefully choose which cows/heifers/ewes might be suitable for AI or ET. Ideally it is probably best to use a recipient that has had a calf/lamb before. You know that she is capable of getting pregnant and that her birth canal is large enough to deliver normally. Heifers/maiden ewes are unknown quantities and you should only choose ones that are already well grown at the time of mating. Whether using natural mating or AI you should choose a sire that is known to sire small or average sized offspring. I am less sure about the wisdom of transferring embryos into heifers and think that under Falkland Island conditions it would be better to avoid doing this for the time being.

3) Feeding pregnant cows and ewes

This is where you, as the farmer, can really make a difference. Because you've spent a lot of money on the semen or the embryo and the potential calf/lamb is going to be a valuable asset you naturally want to ensure that the dam is well looked after. The danger is that you may look after her too well. Generally speaking pregnant animals in the Falkland Islands have to cope as best they can often during the winter and early spring period when good quality grazing is scarce. This means that the mother usually ends up losing weight at the same time as the calf or lamb is developing inside her. This is not a desirable situation but works all right provided the loss in condition isn't too extreme and that good grazing is available as spring progresses.

However the reverse can also lead to problems of a different kind. If you feed too much good quality food (either good pasture or concentrates) to a pregnant animal over a long period of time you will help to produce a very large calf or lamb, an overweight cow or ewe or a combination of the two. This can then lead to calving or lambing problems because of an overlarge foetus or a cow or ewe with too much fat in and around the pelvic canal. Ladies out there reading this article will know that the female of the species has a tendency to put on fat around the backside if they eat too much and the same tends to be true for cattle and sheep!
So what can you do to minimise the problems? Ideally you should aim for the pregnant mother to maintain her weight during pregnancy or increase her weight by only a small amount. You should aim for her to have a body condition score of about 2.5 and definitely no higher than 3.5 at the time of

calving/lambing. She should have a good balanced diet sufficient to meet her needs and that of the developing foetus but not so much that she starts to put on extra fat. The improved diet does not need to be fed throughout the whole period of pregnancy but only in the latter stages (last month or 6 weeks) as this will help to prevent foetal or maternal overweight and will also help to stimulate a good supply of milk.

We've seen more problems this year in oversized lambs and calves born as a result of the AI/ET programme than in any previous year. The problem is not a huge one and does not mean that we should not continue with the use of AI or ET in the future. However we should learn some of the lessons so that we can minimise the risks during next year's lambing and calving season.

STAATS ISLAND & GUANACOS

By Sue Halfacre

My mission should I choose to accept it:-

Accompany Dr Bill Franklin and his team to Staats Island to

- Carry out a Total Population Count
- Capture newborn chulengo's (weigh, tag & blood sample)
- Collect skulls for measuring
- Take tissue samples from carcasses for DNA analysis
- Observe family groups and their composition
- Establish the % of pregnant females

Background Information

The valleys on Staats are very green and in Chile these are called Vega's. We identified four Vega's and this helped in plotting the family groups. Each group consists of a territorial male, breeding females, yearlings of both sexes and chulengos (baby guanaco). The only way guanacos can enter the island are if they are born and the only way they leave is when they die. They have been in the Falklands Islands for approximately 70 years as a completely closed, isolated small population. Originally less than ten animals were introduced. This situation is believed to be unique in the guanaco world, and therefore lends

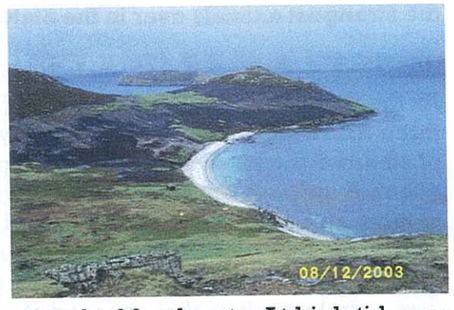
itself to scientific study re the effects of inbreeding and limited resources. It has been proven already that there is a higher % of newborn/premature mortality than mainland Chile and their size is slightly smaller. Chulengos tend also to have a lower birth weight on average.

The adults were extremely wary of us humans and retreated to a safe distance. However newborn chulengo know no such fear and as the mother runs off they quite often get left behind. If you hum to them in the right way, they will walk right over to you and you become an adopted mother for 5 minutes while you carry out the tests needed. We managed to capture and tag six chulengos. The four that were tagged the previous year were evident as yearlings. Around this time the territorial male pushes them out of the family group and they have to find their own way. Not long after, the female yearlings get the same treatment. It is not unusual to come across a group of seventy or more bachelor guanacos roaming together.

Females are pregnant for 11.5 months and breeding begins again about two weeks after giving birth. Birthing starts at the beginning of December.

Journey Out

We eventually boarded the islander after the team had to adjust their personal luggage allowance and leave a third of it behind. There were Y-fronts and bottles of liqueur flying around the reception as people rummaged through their duffel bags and rucksacks. Needless to say the liqueur won out over the pants. Luckily all my essentials went ahead on the 'Laura Jay'.



Once on Staats we set up base camp and had a briefing from Bill on how to sex animals from a distance through binoculars. Male animals are discrete in the genitalia department so identification is often made on behaviour, pregnancy and the angle of urination. The males urinate backwards but at a lower angle. Meanwhile Doug built some interesting toilet seats on the shoreline made out of large stones, some even had backrests. At high tide, we also discovered that two of them had a bidet effect that was best avoided.

Monday dawned and we set of to explore on a hearty breakfast cooked in the historic shanty. This contained numerous carved names and dates, the oldest being a Falkland Island pioneer, Henry Waldron circa 1880's. We were not long out before we captured our first chulengo. It had deformed front feet but was otherwise healthy. We performed the necessary tasks and let it go. It's mother stood way off observing the proceedings. We moved on after we were satisfied they would be re-united and the striated Caracara would not get a quick snack.

More rain

Unfortunately it rained ten days out of twelve. Along with the strong winds the tents were finally breached at some antisocial hour of the night. My clean clothes got wet while my laundry stayed dry. Wearing the same clothes for six days nearly got me ex-communicated. My tent had to be moved as it was parked over a piece of ground that connected two water run off pools. A water feature in my tent would not have been welcome.

On a couple of bad days we stayed in the shanty and measured all the skulls that had been collected since 1999. This gave enough statistical information to prove that herd size was smaller than normal. For some reason Bill and the rest of the American team could not understand my accent unless I did a John Wayne impression. Other differences evolved over the week. I introduced them to Marmite, which you do not get in the USA. After they accused me of attempted poisoning they rustled up a big jar of peanut butter. Apparently I am hotter than a two peckered alligator and there was talk of a one eyed snake. I am glad to say Bill's attempts to get me drunk were thwarted. They sure have the strangest animals over in the States.

Wildlife

As the days went by, more and more wildlife turned up at the door. There were three foxes that sat outside the shanty waiting for the breakfast scraps. A family of steamer ducks swam up and down the beach fighting off the seal with great effect. A striated Caracara loitered with intent on most days. Charlotte decided to have an outside shower and it tried to run off with her 'smalls'. Sometimes you would be sitting on the rocky throne and feel some beady eyes on you. Sure enough our little friend would not be far away. On one of the tiny beaches there was a male sealion that snoozed its day away when the weather was kinder. Magellanic penguins lived around the shanty and serenaded us with their braying at 4.00am every morning. They also shared their little flea friends with us and as the days wore on my legs looked like they had measles. There were a few small bird species scattered around that appreciated the shelter of the rocky crevasses.

Joyce's Hole

We were warned about the above before we set off on our hikes. This consisted of a large hole inland on a sandy area surround by a few small tussock bogs.

There was a massive sheer drop to the sea presumably accessed by an underground tunnel. Bill and Doug found two new ones on the day of the total population count. One was halfway up a hillside and hidden from normal view. The aperture was large enough to fit four shanties in side by side. At the south end of the island where there was a cliff face, there were steep sided crevasses that journeyed inland.

Total Population Count

This was carried out by the five of us spreading out in a line in walkie-talkie contact with each other and moving forward from the north to the south end of the island. This pushed a lot of the guanaco to one end. Any that passed us were counted. While three of the team went around the last hill, Bill and myself perched on the hillside opposite so when they all came tumbling down the escape route we could count them. We also sexed them where possible and marked whether they were pregnant or not. This gave us a final count of 392.

Acknowledgements

Permission to work on the island and the support of Jerome and Sally Poncet are very much appreciated. Without their strong conservation and research outlook, this work would not be possible. Thanks also go to those that helped us on the journey out and the journey back. You know who you are.

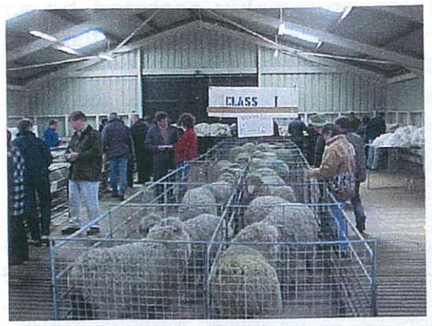
PS Whoever it was that told me the island was flat will get their punishment in hell.

THE SEVENTEENTH WEST FALKLAND RAM & FLEECE SHOW, 2003 REPORT

By Nigel Knight

The morning of the 29th.December started off dull and overcast. This contrasted quite markedly from the exuberance of the visitors to the Seventeenth West Falkland Ram and Fleece Show. The residents and visitors to Fox Bay Village were anticipating 'a good day out' and were not disappointed. The weather continued to sulk for a while but could not hold out all day, so after unsuccessfully trying to jeopardise the barbecue capitulated and treated us to a fine afternoon and evening.

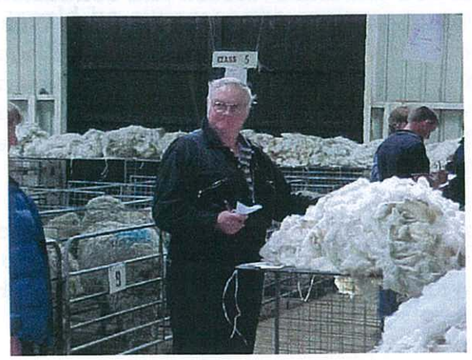
Justin and Keith had already been working hard transforming the Woolshed although their work was not yet over. Keith started off by taking entries, many of which had already arrived by FIGAS. When Tony and Susan arrived early with their entries they also gave a hand.



Once the entries were all in, Bill Pole-Evans and Neil Judd set about the daunting and onerous task of selecting the Fleece having the highest Commercial Value. They did this by working out the clean weight by estimating the yield and then multiplying this by the actual greasy weight. They then estimated the average fibre diameter before multiplying this by today's prices for that micron wool. Once this had been accomplished the next task was to select from the forty Rams that were entered, in the three Ram classes the one they considered to have the 'Best Conformation' along with the 'Runner up'. Next they had to judge the Champion Ram and Reserve Champion from all the Rams exhibited in the Show, not a job for the fainthearted.

A total of seventy-five fleeces from seventeen Farms and forty rams from eight Farms were exhibited at this year's Show. It was good to see Falkland Landholdings Farms sending fleeces again this year. All the entries had been carefully selected from tens of thousands of fleeces and hundreds of rams every one a credit to its owner.

By now the barbecue, which was this year in the capable hands of Leon and Helen helped by Griz plus other numerous helpers, was in full swing. This fortified all those that intended judging the three classes of rams and the three classes of fleeces, which now awaited them back at the Woolshed. Once this task had been accomplished Lisa and Pat with assistance from Cllr. Hansen and Susan counted up the judging slips before the results were known. These were all then competently collated by Lisa. The sheep used in the fleece weight competition was then skilfully relieved of its fleece by Ali and both the fleece and the sheep were then weighed. This enabled the winners in the other competitions to be worked out. It was also very satisfying to see an increasing number entries in the 'Under 21's Sheep Judging Competition', Jimmy Forster kindly produced the 'Master judging sheets'



to enable the results from this competition to be worked out. During the Show Justin and Jimmy recorded the highlights on camera.

Promptly at six pm, a good crowd once again assembled in the Woolshed for the prize-giving. This years prizes were presented by H.E. The Governor who had flown out to Fox Bay especially for this event. This was only made possible by the FIGAS Pilot Andrew and the ground staff back in Stanley working late into the evening, so a special thanks to them all. The prize-giving brought this years Show to a close, after which the focus of attention now moved back again to the Social Club for more drinking and dancing into the early hours of next morning. Thus bringing to an end another successful Ram and Fleece Show.

Unfortunately we do not have room to print the list of prize winners this month – sorry. Ed.

BLUE BEACH EXCAVATOR

By Hew Grierson

Earlier this year we purchased a Daewoo 13 tonne excavator. The machine was fitted with 800mm tracks and a 3 metre dipper arm for added reach. With the machine comes a rock bucket. We also purchased a trench, and 6 foot ditching bucket.

The machine has been used to open some bad ditches up for Richard and Toni Stevens at Port Sussex and Ted and Sheila Jones at Head of the Bay, and also at home here at Blue Beach. We were lucky to have Chris Lloyd as the operator and he got on well with the digger and took it to places that Ted got bogged on foot !!.

Whilst ditching at Port Sussex Chris counted 27 dead sheep and 3 dead cattle (not GPS'd). At the HOTB he counted 44 dead sheep and 3 dead cattle in 1937m of ditches. The cost per meter for ditching at the Head of The Bay worked out at 51p for a single slope and 98p for a double slope. At Blue Beach he counted 17

dead sheep and 1 dead cow in 6681m of ditch (this was two separate ditches). This camp is mainly used for clippies and cows not supposed to be there. Cost per meter for the first ditch worked out at 40p and for the second 45p. This is based on a £25/hour charge for ditching. Travelling time to and from the ditch is incorporated into the cost.

If a dead sheep is in soft peat or silt it can stay recognizable for a couple of years. If the ditch is hard bottomed there are no remains within a year. Also if the ditch is hard bottomed there are often many rats, which will help to break sheep up.

Chris has been putting bike or rover passes in where marked or wherever he finds suitable ground. In our 6 km of ditching at Blue Beach there were two ditches that we could not cross. Now we have 23 passes, 8 of which are suitable for a rover.

The Department Of Agriculture values a hoggett at £25, with roughly 20,000 hoggetts not making it through the first year of life. Cause of deaths vary from farm to farm, with some farms not losing many. Losses Island wide amount to half a million £ this is not counting shearlings or older sheep. We lose stock in ditches but hope to reduce our losses.

1km of ditching @£400 is cost effective when 16 are hoggetts saved. Indications suggest Ted's ditches will have paid for themselves in one year. We do not know how long a ditch will remain safe but estimate 25 years.

FUNNY HA HA OR FUNNY PECULIAR

Courtesy of Priscilla Legg

As I'm sure you've probably guessed by now, I'm a bit of an e-mail freak and I wonder how we ever managed without it. It's so easy and so much cheaper to keep in touch with family and friends who live across the globe. You also have

a few giggles when someone sends you e-mails that are full of jokes or stupid pictures. A couple of weeks ago I received the following with the above title:

EVER WONDER...

- Why the sun lightens our hair, but darkens our skin?
- Why women can't put on mascara with their mouth closed?
- Why you don't ever see the headline "Psychic Wins Lottery"?
- Why "abbreviated" is such a long word?
- Why doctors call what they do "practice"?
- Why you have to click on "Start" to stop Windows 98?
- Why lemon juice is made with artificial flavour, while dishwashing powder is made with real lemons?
- Why the man who invests all your money is called a broker?
- Why there isn't mouse-flavoured cat food?
- Who tastes dog food when it has a "new & improved" flavour?
- Why Noah didn't swat those two mosquitoes?
- Why they sterilise the needle for lethal injections?
- Why they don't make the whole plane out of the material used for the indestructible black box?
- Why sheep don't shrink when it rains?
- Why they are called apartments when they are all stuck together?
- If con is the opposite of pro; is Congress the opposite of progress?
- Why they call the airport "the terminal" if flying is so safe?

And in case you need further proof that the human race is doomed because of stupidity, here are some actual label instructions on consumer goods:

- On a Sears hairdryer: Do not use while sleeping. *(It's the only time I have to do my hair!)*
- On a bag of Fritos: You could be a winner! No purchase necessary. Details inside. *(Encouraging shoplifting?)*
- On a bar of Dial soap: "Directions: Use like regular soap". *(How's that?)*
- On some Swanson frozen dinners: "Serving suggestion: Defrost". *(And here I was thinking I'd eat it frozen for a change!)*
- On Tesco's Tiramisu dessert (printed on bottom): "Do not turn upside down". *(Doh! Bit late now!)*
- On Marks & Spencer Bread Pudding: "Product will be hot after heating". *(Really?)*
- On packaging for a Rowenta iron: "Do not iron clothes on body". *(Wouldn't this save time?)*
- On Boot's Children's Cough Medicine: "Do not drive a car or operate machinery after taking this medication". *(If only we could keep those 5-year olds off the JCB's!)*

- On Nytol Sleep Aid: "Warning: May cause drowsiness". *(And I'm using this because?)*
- On most brands of Christmas lights: "For indoor or outdoor use only". *(What other use is there?)*
- On a Japanese food processor: "Not to be used for the other use". *(What is the other use?)*
- On Sunbury's peanuts: "Warning: contains nuts". (I'd never have guessed!)
- On an American Airlines packet of nuts: "Instructions: Open packet, eat nuts". *(I'd never have figured that out!)*
- On a superman costume: "Wearing of this garment does not enable you to fly". *(Damn!)*
- On a Swedish chainshaw: "Do not attempt to stop chain with your hands or genitals". *(Is there a lot of this happening somewhere?)*

WANTED

Twigworth Trading would be interested in purchasing the following Sheep.

100 Wethers Body Condition Score 2.5 upward
350 Wethers Body Condition Score 2.0 to 2.5
A quantity of Fine Wool Breeding Ewes

Any Farm who may have some or all of these sheep to dispose of please contact **Wineglass Station on Phone/Fax 32280.** If this number fails then please contact **Falkland Supplies on Phone/Fax 21297.** Or you may phone **21849 evenings.**

SHEEP FRESH SEMEN AI WORKSHOP

All Farmers are welcome to nominate themselves for attendance at the above residential workshop in the Falkland Islands over the 6th, 7th and 8th April 2004. All aspects of ram management and training, ewe management and training, in addition to semen collection and processing needed to successfully artificially inseminate sheep will be covered in this workshop. Precise venue and cost details will depend on numbers. However, it is anticipated that cost recovery will be needed for this workshop to proceed with cost expected to be in the vicinity of £200-£300 for attendance plus additional cost for materials if so desired.
For further information or to lodge your interest please contact Neil Judd

MUTTON PRICES **Export & Local Market)**

WEIGHT	P/KG		SHEEP £
Below 17 kg	Flat Rate		3.00
17.00	0.32		5.44
17.50	0.32		5.60
18.00	0.32		5.76
18.50	0.32		5.92
19.00	0.32	+50p	6.58
19.50	0.32	+50p	6.74
20.00	0.32	+50p	6.90
20.50	0.32	+50p	7.06
21.00	0.32	+50p	7.22
21.50	0.32	+50p	7.38
22.00	0.32	+50p	7.54
22.50	0.32		7.20
23.00	0.32		7.36
Over 23kg	Flat Rate		7.36

Please note
1. A bonus payment of **50p per carcase** will be paid for all carcasses between 19-22kg
2. Please note the 23 kg ceiling price, and that the min flat rate has changed

LAMB PRICES **Export**
(Includes Hoggets - until permanent incisors have broken through - They will be independently checked by the Vet/Meat Inspector at time of slaughter)

WEIGHT	P/KG	LAMB £
10.0	0.55	5.50
10.5	0.55	5.78
11.0	0.55	6.05
11.0	0.55	6.05
11.5	0.55	6.33
11.9	0.55	6.55
12.0	0.77	9.24
12.5	0.77	9.63
13.0	0.77	10.01
13.1	0.77	10.09
13.5	0.77	10.40
14.0	0.77	10.78
14.5	0.77	11.17
14.9	0.77	11.47
15.1	0.85	12.84
15.5	0.85	13.18
16.0 +	0.85	

Please note
Hoggets with permanent incisors that have erupted will be classed as mutton

Falkland Islands Meat Company – A New era

Falkland Islands Meat Company (FIMCo) was formally created as a separate legal entity from FIDC in December 2003. The planned legal separation of the abattoir business into a separate company is now a reality.

The six independent farmer nominations have all been approved by the Falkland Islands Development Board for the four available board positions. The members of the farming community who expressed an interest in being a FIMCo Board member are:-

Philip Miller
Ben Berntsen
Mike Evans
Riki Evans
Keith Alazia
Steven Poole

The farmers are now being asked to select their representatives. Nomination forms have been sent out and it would be greatly appreciated if these could be returned by 16th January 2004.
If anyone has not received a nomination form, please contact Margaret Williams at FIDC. It is envisaged that this will enable the new FIMCo Board to have its first meeting ahead of the start of the export season on 02 February 2004.
The complete board will then comprise :-

1. Farmer Representative
2. Farmer Representative
3. Farmer Representative
4. Farmer Representative
5. Chair RBA
6. GM FLH – Supplier approx 50% export livestock
7. Businessperson – Tony Blake
8. GM FIDC – link FIDB/SFC

Plans for the coming Export Season

These are well developed and progress is being made on all fronts. The plant will be staffed by the core local team plus sub-contract UK slaughter men and a Chilean boning team sourced by Simunovic.

Sheep Procurement

John Ferguson has written to farmers to explain how the grading and procurement of sheep will work. This has been designed to be 'farmer friendly' to help ensure that all parties know what they have to do and when.
With such a short export season (13 weeks), it is essential that the right number of sheep at the right grade are available in the correct week. This will enable maximum utilisation of the Sand Bay plant to be achieved. Problems will cause a drop in production (and increase in costs) and create bottlenecks for other farmers. Clearly this is harder to achieve than describe, therefore please keep John Ferguson informed of any changes as soon as they may occur.

The Management team are optimistic that the planned changes will achieve an improvement over last season and look forward to working with all farmers to achieve this result.

CROP / PASTURE MITES IN THE FALKLAND ISLANDS

By Stuart Doyle

Red legged earth mite -RLEM - (*Halotydeus destructor*) and Blue oat mite - BOM (*Penthaleus major*)

Have you seen suspicious light coloured patches in locked up pasture paddocks? Silvery frosted look on your Brassica crops and legumes leaves??

If so read on ..... **You may have a mite infestation.**
Mites cause millions of pounds damage to crops and pastures worldwide both reducing the plant stands at establishment and reducing the dry matter production of affected plants.

Redlegged Earth mite was first identified here in 2000 by David Parsons, and on a farm visit to Kings Ridge in late December 2003 I noticed suspicious looking patches and collected a sample of mites that have been identified as Blue Oat Mite.

These two mite species are very closely related and are almost indistinguishable with the naked eye, (under a hand lens the BOM has a red spot it's back- see photo). BOM on the Left and RLEM on the Right.

Both species attack Legume, Brassica and grass plants, with BOM feeding more aggressively on pasture grass and cereals (as the name suggests). These minute beasties have beak shaped piercing-sucking mouth-parts to feed on the plant sugars and chlorophyll that ooze out. They feed primarily at night and hide around the base of the plant during the day. Thus, they can easily be overlooked when scouting fields during the day. Feeding on leaves causes yellowing, leaf tips to turn brown, and stunted plants with a silvery-grey appearance. Damage resulting from a heavy infestation is similar to frost damage. This method of feeding give a characteristic 'silvery' look to damaged plants - in time the plants will yellow and look nutritionally stressed. Mites congregate in numbers so damage is generally seen in patches.

Mites are not harmed by high humidity, rainfall, short periods of sleet or ice cover, or by ground frozen to a depth of several inches. When feed sources are exhausted they can travel various distances on the wind to seek new food.

Identification

- RLEM has a black, oval-shaped body with 8 red-orange legs and is 1mm in size (*refer to Photo*).
- BOM also has a dark body with 8 red-orange legs, with its distinguishing feature from RLEM being its orange-red oval spot on its back (*refer to photo*).
- Damage is prevalent under cool and moist conditions. Mite adults are most active in temperatures between 4.5 °C and 20°C with adequate moisture (about 15mm) available.
- Heavy infestations can rapidly kill emerging seedlings.

When to monitor

- Due to Temperature range and moisture requirements Mites are most likely to be seen in late October through to March after a break in the season.
- Optimal temp. for mite egg hatch is between 7.2 °C and 12.8 °C.
- Sample on cloudy days, early morning or late afternoon, when the mites are active.

Where To Look

- Pastures at most risk to RLEM or BOM damage are those with high populations due to under-grazing
- Legumes or Brassica crops sown into grass previously infested (settlement paddocks etc)
- Regularly inspect seedlings for damage and the ground around damaged plants for mites
- Inspect paddocks locked up for summer fodder conservation

Threshold

- Not established in the Falkland Islands.
- Signs of feeding damage on the leaves provide a guide for control but pest numbers can give an estimate of damage potential.
- If damage is severe seek advice from the DOA. Staff will advise of likely economic impact and course of action.

Control

- Keeping pasture well grazed (less than 5 cm in height – or at about 1500 kg DM / ha) **in suspect Paddocks.**
- Trash burns prior to establishment may also reduce the number of mites & eggs in known problem paddocks.
- Close grazing of pastures will reduce mite numbers prior to pulse crop sowing.
- Chemical control is relatively cheap, however logistics and timing in the FI may be impractical.
- Timing of foliage sprays is 3-5 weeks after mites become active and prior to egg laying (no insecticide will control eggs).

In summary, these little beasties are unlikely to be a wide spread problem, however it is wise to know the symptoms and the time of year that they may infest your crops / pastures. Keep an eye out in spring / early summer for the symptoms and in particular young crops and pasture paddocks exceeding 3000kg green DM/ha in spring or are locked up for fodder conservation.

FIELD DAYS

1. **1.30pm Saturday 24th January 2004, at Bold Cove cattle yards**

   Topics:
   Bull selection using linear measurement and physical evaluation.
   Cow selection using linear measurement.
   Demonstration of Real Time Ultrasound Scanning for pregnancy testing, meat yield and tenderness.
   Use of appropriate genetics for production of grass fed beef.

   Guest speaker will be **Gerald Fry** who will be in the Falkland Islands to conduce the cattle ET and AI Programme.

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2. **10 am Thursday 29th January 2004, at Brenton Loch cattle yards**

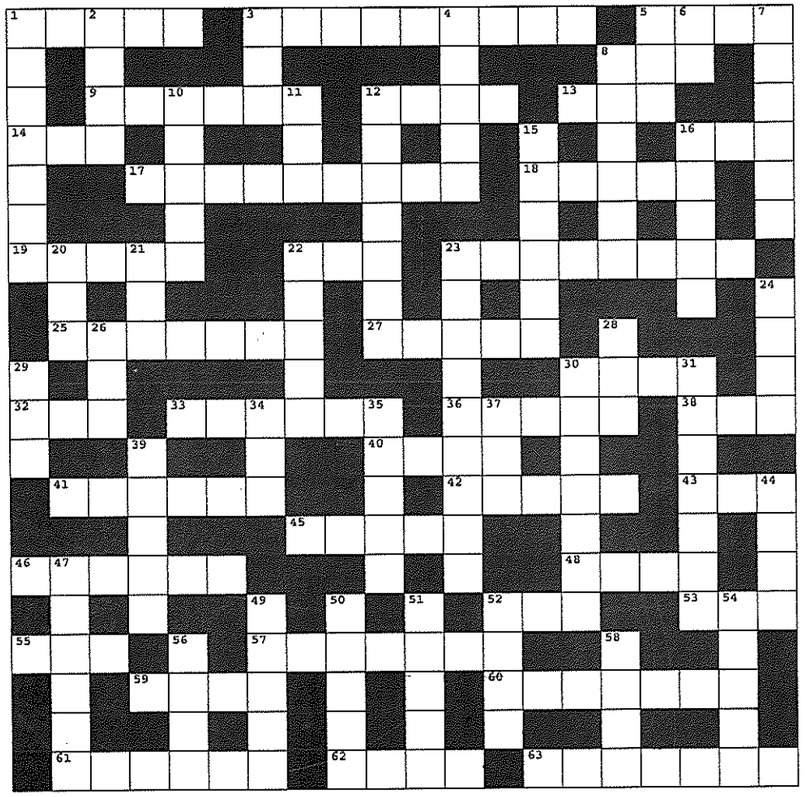
   Topics:
   As above with the inclusion of the following;

   Results of trials using ammoniated white grass and by-pass protein for low-cost maintenance of cattle and sheep in Winter.

   Speakers will be **Gerald Fry** & **Niilo Gobius**.

   Please notify the Department of Agriculture if you intend to attend.

january 04



ACROSS

1. YOUNG DOG
3. SHIP DRIVER
5. RUBBER MOUTH PIECE
8. CIGARETTE
9. MOUSE, RAT ETC
12. STONED FRUIT
13. MOUNTAIN
14. DOMESTIC CREATURE
16. NORTH SEA FISH
17. WOODWORK
18. LONG HAIRED COLLIE
19. CROSS LOOK
22. THE BEST
23. CONDENSATION
25. WHITE ROOT VEGETABLE
27. WOOLPRESS ED
30. ROSE FRUITS
32. AUTOMOBILE
33. PICTURE TAKER
36. MAIL ORDER FISHING COMPANY??
38. CHILD'S BED
40. 1,760 YARDS
41. FIRE BREATHING MONSTER
42. FOURTH MONTH
43. DISMISSED IN CRICKET
45. FEAR
46. STICKS THAT HELP YOU WALK TALL
48. IMPERIAL LAND MEASURE
52. COOK IN OIL OR FAT ON STOVE
53. LARGE RODENT
55. COOLING DEVICE
57. INSTRUCTOR
59. ROE, RED, ETC.
60. OF THE EYE
61. PALE COMPLEXION
62. CANVAS DWELLING
63. BIBLICAL JOHN

DOWN

1. SMALL SPOTS
2. SHERRY TYPE BEVERAGE
3. A MYTHOLOGICAL GOD
4. WITH LICE
5. HIT LIGHTLY
6. FOR EXAMPLE
7. A MEASURE OF WOOL STRENGTH
8. SHOW OFF
10. ELONGAGTED SPEECH
11. FOOT DIGIT
12. DRESS-MAKING TEMPLATE
15. MINK FUR
16. MILK CONTAINER
20. HAT
21. CONFLICT
22. PLENTY
23. ORANGE JAM
24. COMPASS POINT
26. ATMOSPHERE
28. BELONGING TO HIM
29. THE BEST
30. BREAK FROM WORK
31. MOD MOTORCYCLE
34. MALE BEING
35. SEMI PRECIOUS STONE
37. SALES PERSON
39. END OF HOUSE
44. EXAM
47. GRATITUDE
49. BEDDING MATERIAL
50. ADDICTION OR ROUTINE ACT
51. ROSE SPIKE
52. HOPPING AMPHIBIAN
54. BOOK OF THE WORLD
56. WATER MAMMAL
58. DROOPY

Dog Dosing Dates for 2004/2005

Date	Drug
Tuesday 23rd December 2003	Droncit
Wednesday 4th February 2004	Drontal
Wednesday17th March 2004	Droncit
Wednesday 28th April 2004	Drontal
Wednesday 9th June 2004	Droncit
Wednesday 21st July 2004	Drontal
Wednesday 1st September 2004	Droncit
Wednesday 13th October 2004	Drontal
Wednesday 24th November 2004	Droncit
Wednesday 5th January 2005	Drontal

GAP STUDENTS FOR NEXT SEASON

Would you like to host a GAP student next season?

Could you share a GAP student with another farm?

If you are interested but require more information, please call me on 27355 (daytime) or 21025 (evening – this is an answerphone, but if you leave your name and number I will get back to you).

Alternatively, email me: mmcleod@doa.gov.fk

I need to know before the end of January if you are considering because the GAP organisation starts their recruitment and vetting process shortly

(having an interest or 'considering' does not obligate you at this stage)

Thank you

Mandy

Mandy McLeod
Rural Development Officer
(and Falkland Island GAP agent)

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EDITORIAL

Hi All,

A pretty hectic month all round I think. At least we have had some decent weather for a change. Lets hope it holds out for a bit longer.

In the first article by Niilo – 'The Performance Of Sheep Grazing Swedes & Turnips In The Winters of 2002 & 2003' you will see that in the text he states that 294 hogs were weighed before the grazing trial and 335 were weighed after. In the table further down the page though he quotes these figures the other way round. As Niilo is out of the country at present I have decided to leave it as it is and I will get him to provide an amendment next month.

As from March Priscilla will be in charge of the Wool Press. Please can all articles be sent to her for publishing from then on.

This month I received an article from Myra May, which unfortunately we don't have room to print in the Feb WP. It is great to receive articles from people other that the AG Dept staff and the few 'old faithfuls' who provide us with an article now and then. Please feel free to contribute.

Nyree

WANTED

A sump for a 200 Tdi

If you can help please contact Justin on 42094

THE PERFORMANCE OF SHEEP GRAZING SWEDES & TURNIPS IN THE WINTERS OF 2002 AND 2003

By Niilo Gobius

The performance of hoggets and ewes grazing turnips and swedes in winter was monitored in 2002 and 2003 at Horseshoe Bay and Hope Cottage to assess:
The potential of root crops in the Falklands for promoting liveweight gain in young sheep and reproductive ewes during late winter, and
The potential dry matter yield of root crops in the Falklands.

With knowledge of the above two points we can predict the performance of sheep grazing root crops, and predict the carrying capacity of root crops per hectare. This enables us to budget for the appropriate area of crop to feed a specific number of sheep.

Maggie and Peter Goss weighed 294 hoggets in August 2002 before 873 hoggs grazed a turnip/swede patch. The hoggets had access to native pasture (finegrasses, whitegrass and diddledee) and continuously grazed the turnip/swedes (i.e. not strip grazed) for 52 days until it was deemed finished.

Upon removal from the turnip/swede patch 335 hoggets were weighed and it was calculated that the *hoggs gained an average 52 g of live-weight/day over the grazing period* (Table 1).

Table 1. Live-weight gain of hoggets grazing swedes and turnips at Horseshoe Bay in early spring 2002.

GOSSES - HORSESHOE BAY 2002		
Number of hoggs	873	
Average weight before going on to swedes/turnips (kg)	18.25	335 animals weighed
Average weight after grazing swedes/turnips (kg)	20.96	294 animals weighed
Average weight gain (kg)	2.71	
Date moved onto swedes/turnips	23/08/2002	
Date shifted off swedes/turnips	14/10/2002	
Number of days grazed	52	
Average weight gain (grams/day)	52	
If animals grazed 0.63 kg swede/turnips DM per day/hogg		
TONNES (T) CONSUMED	**28.60**	
@ 4 ha of swedes/turnips the amount of swede utilised (T/ha) was	**7.160**	
if utilised at 40% then there was this much swede/turnips/ha (T)	**17.87**	
if utilised at 50% then there was this much swede/turnips/ha (T)	**14.30**	
if utilised at 60% then there was this much swede/turnips/ha (T)	**11.92**	

In 'Supplementary Feeding', an occasional publication of the New Zealand Society of Animal Production, a mean weight gain of 61 g/day is quoted for young sheep grazing swedes in the field. This weight gain compares favourably.
With knowledge of the nutritional requirements of hoggets to grow at this rate and the approximate energy density of the turnips/swedes we can conclude that the animals consumed approximately 0.63 kg dry matter (DM)/day/hogget. Thus a total of 28.6 t of DM was consumed, or utilised, during the 52 days of grazing. As the turnip/swede patch was about 4 ha in size that equates to *an utilisation rate of 7.15 t/ha*.

'Supplementary Feeding' also quotes root crop utilisation rates between 34 – 47%. If we assume that the crop was utilised at 40% then *we expect the crop yield was actually 17.9 t DM/ha*. Interestingly, I measured 17.5 t DM/ha by cutting quadrates from this patch.

In 2003, Peter and Maggie planted swedes and turnips again and 880 hoggs grazed the 4 ha for 69 days from the start of August until mid-October. *This time the animals gained 83 g/hogget/day* (Table 2).

Table 2. Live-weight gain of hoggets grazing swedes and turnips at Horseshoe Bay in early spring 2003.

Gosses - Horseshoe Bay 2003		
Number of hoggs	880	
Average weight before going on to swedes/turnips (kg)	18.8	64 animals weighed
Average weight after grazing swedes/turnips (kg)	24.5	38 animals weighed
Average weight gain (kg)	5.7	
Date moved onto swedes/turnips	31/07/2003	
Date shifted off swedes/turnips	08/10/2003	
Number of days grazed	69	
Average weight gain (grams/day)	83	
If animals grazed 0.82 kg swede/turnips DM per day/hogg		
TONNES (T) CONSUMED	**49.79**	
@ 4 ha of swedes the amount of swede/turnips utilised (T/ha) was		**12.45**
if utilised at 40% then there was this much swede/turnips/ha (T)		**31.12**
if utilised at 50% then there was this much swede/turnips/ha (T)		**24.90**
if utilised at 60% then there was this much swede/turnips/ha (T)		**20.75**

Using the same calculations as for the 2002 season, we calculate that the hoggets must have consumed 0.82 kg DM/hogget/day or 49.8 t DM over the entire grazing period. *This equates to an utilised yield of 12.45 t DM/ha*. If we suggest that the better liveweight gain was due to better selection (the milder winter resulted in less leaf drop) and higher utilisation, say 50%, this equates to *a crop DM yield of 24.9 t DM/ha*. Unfortunately, quadrates were not cut to assess the amount of forage grown this year.

In 2003, Terrence and Carol Phillips planted swedes and turnips and the equivalent of 550 ewes grazed 5.1 ha for 99 days from mid July until the end of October. In this case the ewes also had access to rough native pasture (whitegrass and diddledee). The ewe's strip grazed the turnips/swedes for the first half of the period and were then given free access to the turnips/swedes for the second half of the period.
The ewes gained an average weight of 75 g/day (Table 3).

Table 3. Live-weight gain of ewes grazing swedes and turnips at Hope Cottage in winter/ spring 2003.

HOPE COTTAGE EWES ON SWEDES/TURNIPS 2003		
Number of ewes	550	
Average weight before going on to swedes/turnips (kg)	40.1	300 animals weighed
Average weight after grazing swedes/turnips (kg)	47.5	300 animals weighed
Average weight gain (kg)	7.4	
Date moved onto swedes/turnips	17/07/2003	
Date shifted off swedes/turnips	24/10/2003	
Number of days grazed	99	
Average weight gain (grams/day)	75	
If animals grazed 1.2 kg swede/turnips DM per day/ewe		
TONNES (T) CONSUMED		**65.34**
@ 5.1 ha of swedes the amount of swede/turnips utilised (T/ha) was		**12.81**
if utilised at 40% then there was this much swede/turnips/ha		**32.03**
if utilised at 50% then there was this much swede/turnips/ha		**25.62**
if utilised at 60% then there was this much swede/turnips/ha		**21.35**

Using the same calculations as for Horseshoe Bay, we calculate that the ewes must have consumed 1.2 kg DM/ewe/day or 65.3 t DM over the entire grazing period. *This equates to an utilised yield of 12.81 t DM/ha*. Again, quadrates were not cut to assess the amount of forage grown.

Conclusions

In all three cases that were monitored, the sheep steadily gained weight at a time of the year that they traditionally lose weight dramatically. At Hope Cottage the ewes that had grazed swedes and turnips were then turned off onto reseeds for lambing and achieved a combined lamb marking percentage of 87.5%.

The % of the crop that was utilised is unknown but will always be greater under strip grazing. From these monitored sites it has been calculated that, for levels of utilisation by animals at between 40 and 60%, the total crop dry matter yields in 2003 were in between 20 – 30 tonnes/ha. In 2002, at Horseshoe Bay, the dry matter yield was somewhere between 12 and 18 tonnes/ha.

These yields are considerably higher than yields for grass reseeds which grow during summer and have been measured to produce a maximum of 3 tonnes dry matter/ha under high nitrogen fertiliser regimes.

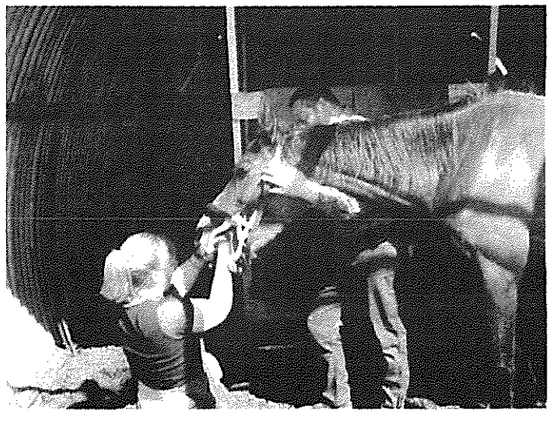
ELAINE TURNER – EQUINE DENTIST – LEVEL 1

By Steve Pointing

The photo below shows Elaine Turner carrying out some dental work on Topstar belonging to Bobby Short of Wineglass Station. Elaine has attended the Academy of Equine Dentistry in Glenn's Ferry, Idaho; USA where she completed over 100 hours of dentistry on horses as well as the classroom lectures. She passed the final examination with a distinction. In America she would be classified as an Equine dentist – level 1. She needs to attend two more dentistry as well as a 2-week head and neck anatomy course before she qualifies as a fully-fledged equine dentist. She hopes to pursue these courses in the next few years.

Looking after horse's teeth is almost as important as caring for their feet. There has been a long tradition of a specialist profession dealing with horses feet (farriery) and, as a vet, I would have to say that a well trained farrier probably knows more about horses' feet and how to go about correcting certain problems associated with them than do many vets. Having lay people involved in equine dentistry is a more recent phenomenon but is quite common now in the USA and in the UK. Providing these people have undergone the necessary training at a reputable training centre then there is no reason why they shouldn't provide an excellent service to the horse owning community. Horses should have their teeth checked on a regular basis (at least annually) in much the same way, as their feet should be regularly monitored. It is much easier to keep the teeth in good order by routine treatment than it is to try and correct a long-standing problem. If Elaine comes across anything unusual or unfamiliar while carrying out routine procedures then she would automatically contact one of the vets or suggest that you do.

Elaine has all her own dentistry equipment (brought back from the States) including the dremel power tool. The later is not for the faint hearted as it makes anything you may have seen at the KEMH dentist's look positively appealing! Charges for work done is dependent on the individual case and how long it takes. For a routine health rasp (or float as the Americans say) the cost would be between £5 and £15. If sedation of the horse is necessary then this could add another £10.



For more information please contact Elaine at Rincon Grande on 31119.

SALE OF CAMP KILLED MEAT TO THE GENERAL PUBLIC

By Steve Pointing

Recently an incident happened in which an ox died suddenly when being rounded up with the rest of the herd. Although we were able to examine the lungs, heart and liver (and make a tentative guess as to the cause of death) we were not able to examine the rest of the carcass. The farmer in the meantime had bled and dressed the animal and was hoping to sell the meat into the retail market in Stanley. I had to advise him that this wasn't such a good idea as we weren't absolutely certain what the animal had died of. I have checked the legal position on this and at the moment there is no law preventing the sale of meat from animals dying in this way to members of the public. However I would hope that most farmers would exercise a degree of common sense and concern about the health of their fellow islanders rather than just think of the money that could be made. Normally a farmer would choose a healthy, good-looking beast for slaughter and onward sale to the retail outlets in Stanley. As far as the farmer was concerned the beast would have been in good health right up to the time of shooting it. The problem with animals that die suddenly in front of you or are found freshly dead is that you have no idea how long they have been ill or what effect that illness will have on the quality of the meat. It would be preferable, therefore, that meat from such carcasses is not put on sale to the general public. I would have no objections to meat from such carcasses being eaten by the farmer's own family and friends provided they were aware of the circumstances of the animal's death. If there were any health problems as a result of this sort of meat being eaten it would then be confined to a relatively small number of people and could easily be dealt with by the Health Department. If anyone is worried about whether meat is suitable for sale then I would be happy to advise them.

MISCELLANEOUS INVESTIGATIONS INTO RESEED AND FORAGE CROP PRODUCTIVITY

By Niilo Gobius

Very little current data is available to enlighten anyone on the production performance and potential of reseeds and fodder crops in the Falkland Islands. The most up to date data for reseeds was developed in the 1980's and since then methods of establishment and pasture species have changed somewhat. The development of fodder crops has been grossly neglected until the last few years; despite their ability to fill the winter/spring feed gap for livestock.

With knowledge of the productivity of reseeds and fodder crops and their quality for ruminants, feed budgeting can be conducted, the area required for production can be calculated and animal production (per head and per hectare) can be

forecast. From this an economic analysis of the production system can be conducted.

When the opportunity arose, I have tried to quantify the dry matter (DM) production from several reseeds and fodder crops around the Falklands. DM production was estimated using two methods – DM cuts and the 'reverse-use of Ruminant Animal Feeding Standards'. The latter method is a more accurate method of estimating the animal production potential of a reseed or crop as it measures the feed actually utilised, rather than the total DM production which always incurs a loss through decay and animal wastage (soiling and trampling).

The 'DM cuts' method involved cutting many 1 x 0.25 m quadrates either twice over the growing season (Shallow Harbour reseed) or once at the conclusion of the growing season (Burntside oats). The oven-dried weight from these quadrates provided an estimation of the per hectare DM production. The 'DM cut' on the reseed at Port Howard was calculated from the amount of hay bales cut in January, approximately 2/3rds of the way through the growing season. 15 bales were weighed, their moisture % determined and the productivity per hectare estimated.

The 'reverse-use of Feeding Standards' method requires knowledge of the number and type of animals grazing on a specific area of reseed or crop, the number of days that area is grazed, the live-weight gain or loss during the grazing period, and the energy (megajoules (MJ) of metablisable energy (ME)) required by the animal to produce the liveweight gain or loss. Forage DM required to supply that energy required by the flock or herd is determined by dividing the energy required by the energy density of the grazed forage.

Good actual records of animal production were obtained for all the situations where the 'reverse-use of Feeding Standards' method was employed, except for the Hope Cottage reseeds 1, 2 and 3. For these reseeds liveweight and its change were estimated using average figures. However, actual records of reseed size, number of animals and their type and the number of grazing days was all taken from historical records.

Table 10.1 describes the production of various reseeds, an oats crop and several brassica crops around the Falklands in 2002 and 2003. The table presents the DM produced from the reseed or crop, its age, its potential carrying capacity from 100 ha for 140 days and in some cases a few explanatory notes.

Table 10.1. Production recorded from various reseeds and forage crops around the Falklands.

No.	**Reseed** *1.4 kg DM/hd/day average for ewe and young lamb*	**Reseed age (years)**	**Utilised Dry Matter (kg DM/ha)**	**Potential carrying capacity /100 ha /140 days Lambing ewes**	**Additional Comments**
1	Hope Cottage 1*	1	2318	1183	
2	Hope Cottage 2 *	3 & 1	1796	916	
3	Hope Cottage 3 *	5 & 4	2468	1259	187 kg N/year applied until 2000
4	Bold Cove 1 *	1	1536	784	
5	Bold Cove 2 *	2	1598	815	
6	Port Howard ¶	2	1936	988	Carrying capacity if 100% utilised
7	Shallow Harbour ¶	8	468	239	Good slope, shallow soil, carrying capacity if 100% utilised
No.	**Oats**	*1.0 kg DM/hd/day*		**Dry sheep**	
1	Burntside ¶	1	4747	3391	Annual, carrying capacity if 100% utilised
No.	**Brassicas**	*0.5 – 0.8 kg DM/hd/day*		**Hogget sheep**	
1	Horseshoe Bay 2002 * (Turnips & Swedes)	1	7150	10214	Annual
2	Horseshoe Bay 2003 * (Turnips & Swedes)	1	12448	17782	Annual
3	Brenton Loch 2000 * (Brassica mixture)	1	2490	3556	Annual
		1.2 kg DM/hd/day		**Pregnant ewes**	
4	Hope Cottage 2003 * (Turnips & Swedes)	1	12812	10282	Annual

* Measured through the reverse-use of Feeding Standards.
¶ Measured through dry-matter cuts

Reseeds

No nitrogenous fertilisers were used on any of these reseeds. What is immediately apparent is that the potential utilisable DM production of non-nitrogen fertilised pastures is approximately 2 t DM/ha. Sheep grazing Hope Cottage reseed 3 utilised about 2.5 t DM/ha but this reseed had a recent history of high nitrogen fertiliser applications. Although the sample size is small, it appears that age of unfertilised reseeds may affect their productivity.

Fodder crops

No nitrogenous fertilisers were used on any of the Brassica crops. Nitrogen was used on the Oats crop at Burntside.

Fodder crops produced up to 12.8 t of utilised DM/ha, fivefold that of the maximum recorded here for a reseed. The range in production is large, but generally crops produced more than double that DM produced from reseeds. The carrying capacity of fodder crops is then much greater than a reseed.

Crops like brassicas are also energy dense and therefore, compared to reseeds and oats, not as much DM is required by an animal to provide the same amount of energy. This further increases a crops carrying capacity over reseeds.

In the Falkland Islands fodder crops are significantly more productive than reseeds. In addition, the fodder crops are providing a supplementary feed when most required in winter and late spring. This should result in lower stock death rates and greater reproductive efficiency through earlier mating ages and improved condition of ewes and cows prior to giving birth. The great bulk of feed produced, and its high energy concentration (brassicas) lends itself to a high stock carrying capacity.

On the other hand, reseeds are providing little annual DM return for their great establishment cost, grow at a time of the year when all the native pastures are growing as well (if not better) and are not energy dense. Therefore, the stock carrying capacity on reseeds is relatively low.

Fodder crops cost more on an annual basis but, in comparison to a reseed, this cost is then divided over much greater dry matter production and numbers of stock. So it actually works out much cheaper per unit of output.

CHRISTMAS & THE WEATHER

Priscilla Legg

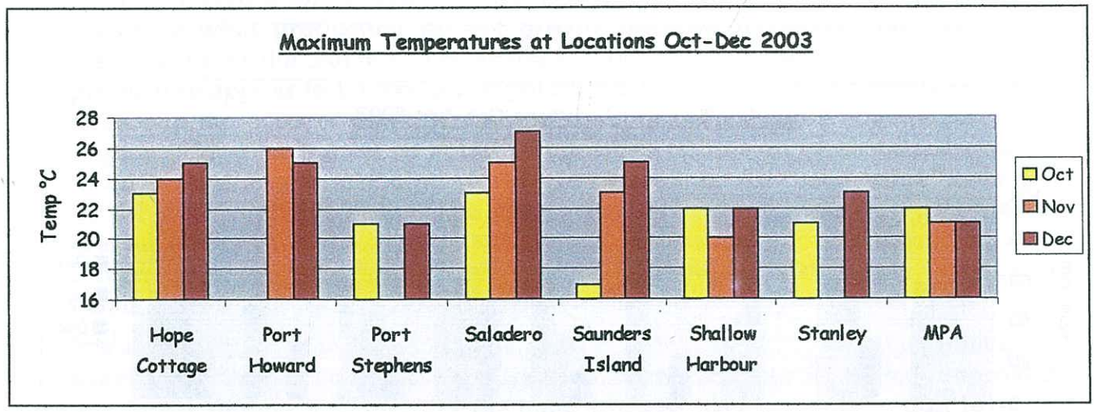
Christmas is over once again and now we're trying to cope with the aftermath. All too soon after piling on the pounds, boozing, breaking those New Year resolutions and sending the bank balance into the red; it's time to shock the body clock into waking up early and drag yourself into work. Bah Humbug! I thank the lord it doesn't have to be repeated for another 11 months! Why is it, that when you come back to work, you don't feel refreshed and energised at all; you just feel like you need another holiday to recover from the holiday you just had? Sometimes these wonders of the human nature never cease to amaze me!

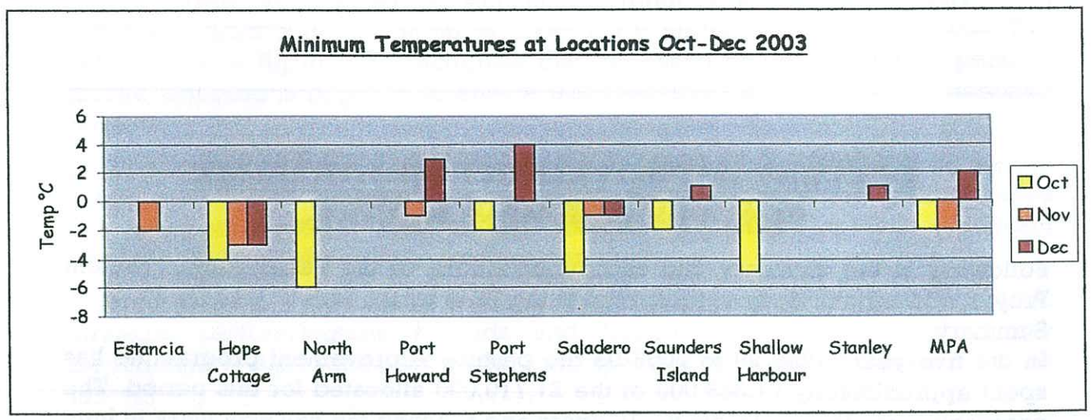
I thought I might have got a bit of common sense or my marbles back in one of my presents but no such luck! I'm still jabbering on about nothing in particular and

confusing the hell out of everyone! But then again, I suppose I'm too far around the bend to turn back now. When I do try and get back on the sense wagon they just chuck me off again! So now I've managed to convince you that I am completely off my trolley with no hope of it ever changing, I'll give you the weather news over the past three months.

Even though it has been wet and windy it has also been reasonably warm. (But since when did that ever stop us moaning about the weather!). The highest temperature over the last three months was 27°C in December at Port Stephens and the lowest maximum was 17°C in October on Saunders Island.

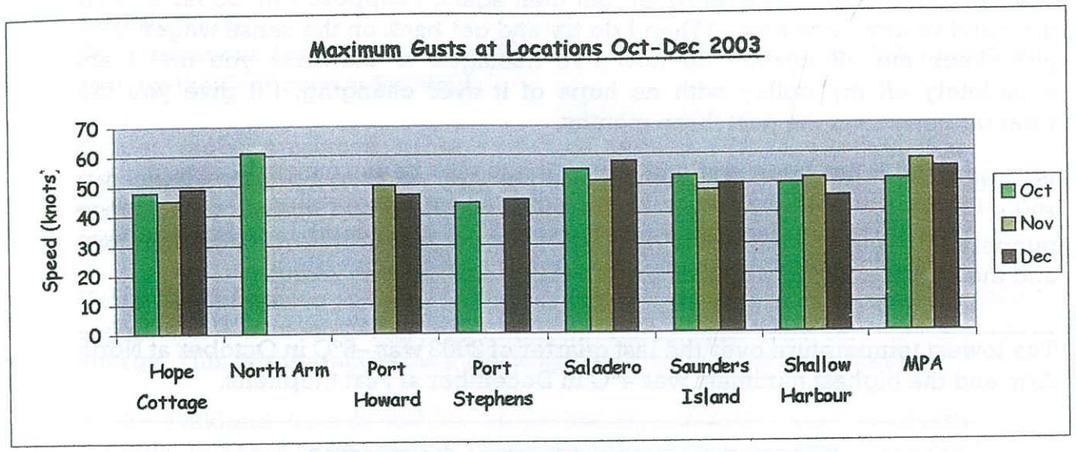
The lowest temperature over the last quarter of 2003 was –6°C in October at North Arm and the highest minimum was 4°C in December at Port Stephens.

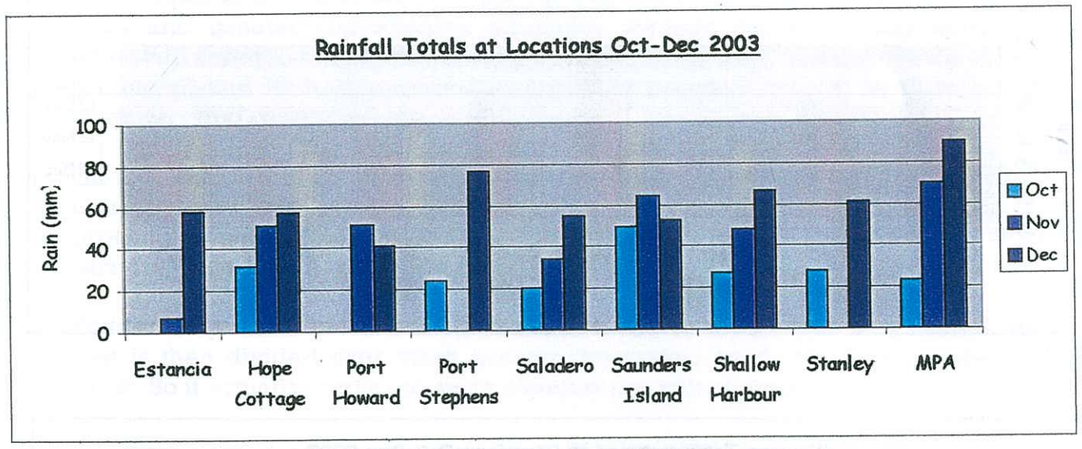




The highest rainfall total was 90mm at MPA in December and the lowest total was 7mm at Estancia in November.

It was quite a gusty quarter because the highest gust was recorded at 61 knots at North Arm in October and the lowest was 44 knots at Port Stephens also in October.





PASTURE IMPROVEMENT PROGRAMME MID-PROGRAMME REVIEW

Following is the summary and recommendations of the Pasture improvement Project mid-term review, as presented to the FIDB by the DoA in January 2004.

Summary

In the five years 1998/99 to 2002/03 the pasture improvement programme has spent approximately £1,388,000 of the £1,710,000 allocated for this period. The programme is planned to run for 10 years and reached the half way mark in June 2003. At the 30 June 2003 there were 49 farms (56% of the total number of farms) working on some form of pasture improvement (26 on East Falkland and 23 on West Falkland). A total of 1730 ha (<0.2% of the total area farmed) has been

developed to a mixture of permanent improved pasture, semi-improved pasture and forage crops (860 ha on East Falkland and 870 ha on West Falkland).

The initial proposal for the programme recommended a review after 5 years. The Department of Agriculture commenced an internal review of the programme on 14 March 2003 to determine whether the programme was providing a worthwhile return on the investment by Government and farmers. In conjunction with the internal review, the Department also sought the views of the farming community on five separate occasions. (Farmer's week on 3 July 2003, Hope Cottage 24 October 2003, Fox Bay 27 October 2003, Hill Cove 28 October 2003 and Goose Green 31 October 2003).

Based on current estimates of costs and estimates of productivity extrapolated from older work, Departmental analyses suggest that developing a high cost pasture/legume reseed for traditional wool and meat production does not produce a favourable economic return. Even modest increases in wool or lamb prices or wool production do not greatly improve the economic viability of reseeds. From the limited data available, preliminary estimates of dry matter production appear to be too low to permit the animal production levels required to recoup the costs of establishment when only included in a commercial flock regime. However it must be noted that positive returns on investment are likely when reseed/forage cropping works are carried out for "high value" animals. On-farm stud animals (sheep and cattle) and recipients of new genetic material are examples of "high value" animals. It is essential that activities for the remainder of the programme reduce establishment and maintenance costs and maximise the productivity from reseeds and forage crops.

It is also important that a rigorous planning process be instituted that identifies the specific groups or classes of animals that will benefit from the improved nutritional regime and that the planning process also includes a high level of grazing management.

Forage crops have provided enhanced productivity and profitability on a relatively small number of farms over each of the last two seasons. The Department of Agriculture recognise that increased emphasis on all aspects of forage cropping is required to ensure that success is achieved by all interested farmers.

In addition to the strategic utilisation of pasture/legume reseeds and forage crops, it is strongly believed that increased adoption of rotational grazing based on stringent pasture and animal monitoring offers farmers significant productivity/profitability enhancing opportunity.

Increased camp sub-division combined with improved grazing management, strategic pasture/legume reseeds and forage cropping are vital to the Department of Agriculture achieving key aspects of its 10 year business plan. As follows: -

- Number of ewes mated each year increased from 200,000 to 250,000
- Lambing % increased from 60% to 70%
- Hogget death rate reduced from 18% to 10%
- Sheep stocking rate increased from 0.55/ha to 0.69/ha

- Greasy wool production per hectare increased from 2.24kg/ha to 2.87kg/ha
- Sheep meat income increased from £200,000 per annum up to at least £450,000
- Farm Gross Margin per hectare increased from £2.54/ha up to £5.25/ha
- Sheep numbers increased from 600,000 up to 789,000

The 32 farmers participating in the review identified a number of successes and shortcoming of the programme. In looking forward to the remaining 4 years of the programme, farmers were keen to see the range of works eligible under the programme broadened and become more flexible to include sub-divisional fencing in conjunction with rotational grazing and other productivity enhancing activity. In any broadening of the programme farmers were adamant that the initial aims were adhered to. Farmers were also keen to see a higher level of planning and a fiscal ceiling on works rather than a ceiling based on area. In essence farmer's were keen to develop a four year plan for the remaining years of the programme showing how a fixed allocation per farm could best be spent to bring about pasture improvement and subsequent improvement in animal production for their own individual farm. Such a concept is also believed appropriate by the Department of Agriculture.

Department of Agriculture Recommendations

1. The Pasture Improvement Programme be broadened to include the following:-

a) Forage cropping as a routine component of an animal production system.
b) Strategic sub-divisional fencing to facilitate rotational grazing and improved animal management.
c) Other on-farm pasture enhancing activity with clear cost benefit.

2. Individual farm allocation uncommitted for the projects four remaining years determined as at 30/06/2004 and funding scheduled over the remaining four years. Farm allocation calculated as the sum equivalent to 50/ha of highly improved pasture at £220/ha = £11,000 plus 150/ha of semi improved pasture at £60/ha = £9,000 giving a total ten-year allocation of £20,000 per farm.

3. Farm allocation dependent on provision of detailed plans to the Department of Agriculture and subsequent approval of plans based on cost/benefit criteria.

4. On farm work reviewed annually.

5. Failure to complete agreed work/s will result in suspension of funding unless the failure to complete the works has been "approved" by the Director of Agriculture/delegate of the Director of Agriculture.

The DoA will present the review to all appropriate parties in an attempt to gain approval and funding for the final four years of the programme in it's broadened format. As more becomes known, farmers will be informed. Anyone wishing to obtain a copy of the entire report is urged to contact Glynis King on telephone 27322.

RBA SHEEP SHOW

The Rural Business Association Annual Sheep Show will take place at Fitzroy on Saturday 3rd April. The times have yet to be confirmed but judging will hopefully start after lunch this will give people more time to arrive and set up.

The categories are:

Class 1. Mature ram over 24 months of age.

Class 2. Shearling ram, over 12 and under 24 months of age.

Class 3. Ram Hogget, under 12 months of age.

Class 4. Mature Ewe, over 24 months of age.

Class 5. Shearling Ewe, over 12 and under 24 months of age.

Class 6. Ewe Hogget, under 12 months of age.

Class 7. Pen of three flock hoggets (male or female), under 12 months of age.

Class 8. Pen of three flock shearlings (male or female), over 12 and under 24 months of age.

Class 9. Ram of any age suitable for producing prime lambs.

Class 10. Ewe of any age suitable for producing prime lambs.

Class 11. Pen of three Weaner Prime lambs.

All entries can be faxed or emailed to the RBA office on 22659 or rba@horizon.co.fk the sooner the better. Start planning now and let's make this a record number of entries, it is an ideal opportunity to show off your hard work and breeding.

We are also hoping to have stalls of produce – vegetables, meat, jams, chutneys, skins etc. There could even be the opportunity for selling livestock after the prize giving if there was the interest so please let me know.

There will as always be hot food and drinks available through the day. Falklands Conservation is organising another Campers Bash to commence at 6.30pm. We are hoping to have children's sports between the end of the Sheep Show and the Campers Bash so there should be something for everyone to enjoy an excellent family day out. Arrangements can hopefully be made for sheep to stay if necessary – please contact Ron Binnie for more details.

I would like to say thank you to FLH and Fitzroy for the use of their shed.

For more information contact: Leeann Harris, Secretary, RBA on phone 22660 or 22131; fax 22659 or email rba@horizon.co.fk.

GRASS SICKNESS REQUEST

Steve Pointing

Have any of your horses ever been diagnosed as suffering from "Grass Sickness"? If so, in what year and what was the outcome of the illness? A team of scientists are studying the disease in Edinburgh, Scotland (where it is relatively common) and they would like to collect as much information as possible about the disease from any other part of the world where it is known to occur. It definitely does occur in the Falkland Islands (although rarely) and also in Patagonia where it is called "mal seco". Any information you can provide please contact the veterinary department on 27366 as it will be most helpful.

CAN'T FIND THE TIME OR ENTHUSIASM TO DO HOME IMPROVEMENTS?

If so, then I may be able to help you. I am interested in renovating or redecorating camp buildings. I can carry out the following tasks; plumbing, studwork walls, wallpapering, and painting but I am also willing to carry out (or assist with) any other building improvement work.

I am not looking to be paid normal commercial rates, and could even be prepared to work just on a Bed & Board or self-catering basis. I also have full Falkland Island Status and am a non-smoker.

I am prepared to consider any project no matter how small or large, in any location, and I could supply most of my own tools for most jobs.

Owen Summers and Mandy McLeod can supply character references if required. If you are interested in offering me any of this type of work, then please contact Andrew Heathcock on 22338 or fax on 22535 a.s.a.p. But please no later than 23rd February.

POST-RETIREMENT GAP YEAR!

By John Longstreeth

What does one do when you retire from an active life in the UK Meat Hygiene service? Having been involved in the conception, birth, infancy and puberty of

the organisation just as the usual reorganisation, which always takes place in new organisations came along I found myself attending my retirement dinner!

A new challenge was required, not too challenging, something familiar but in a new location. What better job than an O.V.S. (I had first done this job in 1973!) in a new abattoir. Where: The Falklands!

When one of the contractors mentioned that he was sending an O.V.S. to the new abattoir in Port Stanley I said "if you retain the contract next year I will do it for you!" 9 months later we were on the plane heading south.

The idea of a familiar job, seeing the wonderful wildlife and the possibility of fishing for the world class sea trout in the rivers of the Falklands was a dream come true.

As a native of Jersey in the Channel Islands one always has an affinity for Islands – our last summer holidays were spent in the Outer Hebrides. My wife Ann was born overlooking the sea in Helensborough in Scotland, so the opportunity to return to the seashores was an added bonus.

So who are "we", John Longstreeth? I was born in Jersey, Channel Islands pre German occupation. Educated in Victoria College, Jersey and later Glasgow University and graduated in 1962 with honours in Surgery and Obstetrics. During a short holiday in Jersey, I fell off a horse whilst hunting with the Jersey Draghunt and fractured my shoulder. On returning to Glasgow University where I was house surgeon in the Large Animal Surgery Department I was sent to the Western Infirmary Physio Department where I met Ann. I arranged a party at the vet hospital so that I could ask her out and we became engaged six weeks later!

We married in 1964 and I went into general practice and later into specialised meat hygiene work. We have two children. Geoffrey who is a Product Support Manager for a Rolls Royce Military Division in Bristol. He is married to Rachel and they have two children Rosie and Georgie.

Our daughter Nicola is married to Ian, Managing Director of a Spring Company in Redditch – just 5 miles from where we live. They have two children Fiona and James.
Ann worked in Worcester Royal Infirmary as Senior Orthopaedic Physio and retired in 2001 and now works part time at the local BUPA hospital.

Our interests are fly-fishing, wildlife and fine wine appreciation. We are members of a local wine group the Inkberow Stained Glass Society and I was elected to the Conferie Tu Chevalier Du Tastevin, a prestigious Wine Society in Burgundy, France in 2002 but that is another story. Ann is a keen cook and embroider when time and grandchildren allow.

WANTED FOR SOUTH HARBOUR FARM

Cull gimmers and cull for age ewes. Ring 42302 evenings or e-mail

mike.and.donna@horizon.co.fk

CAN YOU HELP?

We are trying to locate anyone who has a series 40 4WD County Tractor, apparently a large number of these tractors were sent to the Falkland Islands in the mid 1980's.

If you can help or know of anyone who can assist, please pass on our e-mail address. Many thanks and we look forward to hearing from you.

john@chardstock.fsworld.co.uk

FOR SALE

9 Hereford x Red Angus heifers, born 2001, some calved
4 Hereford heifers, born 2002

Arriving from Punta Arenas early April, and available early May after 30-day quarantine on Bleaker Island. These animals are the surplus part (with the balance already spoken for by six farmers) of a delivery of about 80 cattle currently undergoing 80 days pre-export quarantine at Kampenaike near Punta Arenas.

The cost per head is likely to be in the region of £550 for the 2 year olds (these animals are being AI'd with pure Angus semen on 2 February, 2004), and £500 for the 1 year olds, all ready for loading onto MV Tamar at Bleaker Island after completion of local quarantine.

Prices are fully inclusive, and include unit costs, quarantine costs, feed costs to end of April, treatments and tests in Chile, Chilean private vet's fees, SAG certification and SAG vet's fees, AI cost, freight from Kampenaike to Bleaker Island, Chilean customs agency fees, FI customs clearance charges, DOA lab costs, UK lab costs, treatments and tests here and FIGAS flights for DOA vet inspections on Bleaker. There is no profit element - this is the cost price.

Terms: full payment required before departure from Bleaker Island.

Please contact Mike Rendell on 21084, fax 21086, email mrendell@horizon.co.fk for further details.

CHANGES AT THE DEPT OF AGRICULTURE
SENIOR AGRICULTURAL ADVISOR

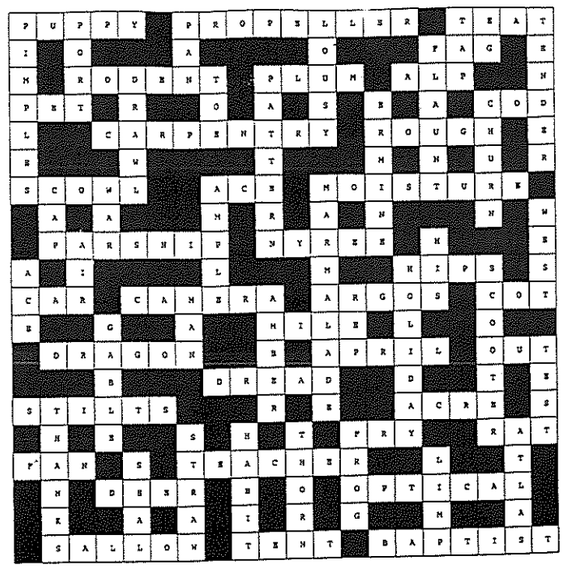
As everyone is aware some quite major staff changes have occurred at the DoA in recent months as a result of the departure of Peter Johnston. As a part of this change I have been appointed to the position of Senior Agricultural Advisor. In this position I will be working closely with Phyl Rendell (who as director will remain responsible for the overall strategic direction of the Department) and other senior staff, to ensure that the DoA has work plans that are objective, practical, well-costed and tailored to the needs of individual farms.

As a major focus of the position centres on achieving results "on the ground" for Falkland Island farms, it seems only logical to include farmers in the decision making process. To support this need, the DoA will not only seek input from the RBA, FIDB and also individual farmers etc, but will establish groups of interested farmers to provide formal input to the Departments specific programs. The first group to be formed will be the Wool Programme Consultative Group. It is hoped that this group will be formed in the near future.

Until all staff changes have taken place, I will continue to manage all of the DoA's wool advisory work, so any grower with a query on any aspect of the sheep and wool industry should feel comfortable to give me a call on 27355.

Neil Judd

LAST MONTH'S SOLUTION



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AGRICULTURAL WORDSEARCH

I E M D I R E C T O R C N S E D G R G N J I K J L D A C B T B B Q
C W R E S U T A G V Y O E B I U Q E K L T N I R T J K N G R H S A
M N E F I O R S F E I R Y Y N Y M G N G E Y I Q E N I L E F R E L
M L S L D O O L B T O R O U O I U Q A I L A L T S P O N R C F E I
I G U T A G P J A E L I Y I L E O V E P U E A C R E T A N D H F A
C R L S S H M N G R M D R O S L R U O E V Q A S S O S E N I P O P
R A T B U F I H R I B A B M U D L S W Z X E E N N A G J F K L D P
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O D V P C G N W U N N R U G B L R E N T L O C S E Y E K T K T H O
N R P L E F S M R J I R X U A S P I N T U R N I P S V C Z I T A R
M E W E E K T B E D M I Z S E M E N F J G H K C L A R D S O D I D

Agriculture	**Equine**	**Mapping**	**Sample**
Blood	**Feline**	**Micron**	**Scan**
Brenton Loch	**Fodder**	**Mineral**	**Semen**
Canine	**Grass**	**Needle**	**Synulox**
Corriedale	**Hereford**	**Nitrogen**	**Turnips**
Director	**Import**	**Results**	**Veterinarian**
Embryo	**Insemination**	**Saladero**	**Yield**

EDITORIAL

Hi All,

I was going to write something about yet more glorious weather – and then it rained! I have to admit that it's much needed rain though so we can't really grumble can we?

Due to Niilo not returning from Chile until tomorrow I haven't had a chance to ask him about the error one of his articles that was printed last month.

Also, next month I will get Prill to send out an updated staff contacts flyer. With Glynis and Stu moving to Mineral Resources and the possibility of there being two new staff members soon, things are getting a little confusing when it comes to deciding what number you need to phone. All will become clear.

Please remember that as from March Priscilla will be in charge of the Wool Press and that all articles should be sent to her for publishing.

Nyree

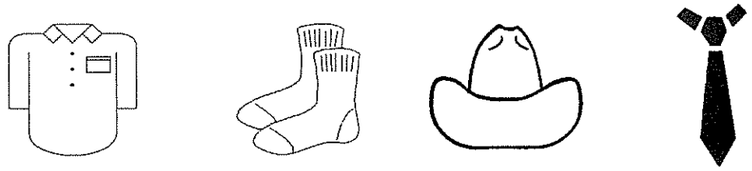
OUT OF THE MOUTHS OF BABES.....

By Myra Pitt

Nyree's comment, that anyone out there can write an article for the Wool Press, started me thinking. I recalled lots of wee comments, some absolute gems, heard by myself and other Camp Education teachers over the years and thought they could perhaps be put together to make an article. We do have a lot of fun!

Happy reading! Birdie.

Small child naming pictures of items of clothing;



" Shirt.... Sox..... Hat..... Doctor...! "

Teacher "What do you call a sheep that gets left behind?"
Cherub "A f'godsake!"

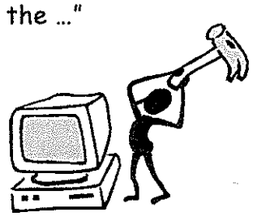
Cherub, returning from a gather, "Mum...a lady dog's a bitch isn't it?"
Mum, "Yes."
Cherub, "So I'm allowed to say bitch?"
Mum...hesitantly...."Y...yes"
Cherub "But I'm not allowed to say *** bitch am I?"**

Cherub "My dog's got puppies"
Teacher " Great -How many legs has a puppy got?"
Cherub "Loadsa legs!"

Two cherubs playing seriously with blocks, boxes and cars.
1st child, " Why did you put that there? "
2nd child, " Well...if you put it there it'll be there – so that's why it's there "
1st child, " Oh it'll be there then "
.....and we wonder about politicians!!

Teacher and adult visitor playing ball with cherub. Visitor (female) gets hit on chest with ball.
Teacher " Another woman busted!"
Cherub "I think somebody's being a bit naughty!"

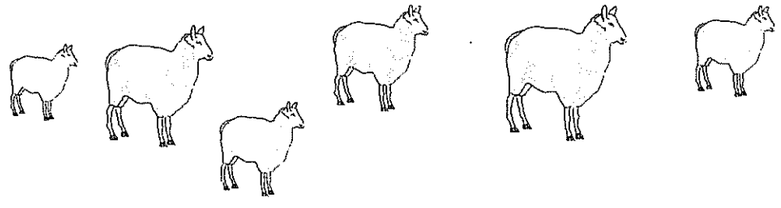
Teacher, when computer wouldn't work, "You're a pain in the ..."
Small voice "Bum?"



Teacher and cherub were in the Camp Ed office, on an "educational" trip.
Teacher, looking at photograph of Margaret Thatcher,
"Who's that a picture of?"
Cherub, "The Queen"
No argument there!

Teacher finds lost book after lots of looking.
Cherub, " Gee ....., you're a good looker! "

Teacher heard trying to make math relevant,
"So if dad kills six dog tucker before smoko, and three after smoko .....
How many has he killed altogether?"



EXPORT OF WOOL TO URUGUAY

By Stephen Pointing

I recently visited Montevideo in Uruguay where amongst other things I visited the Ministry of Livestock, Agriculture and Fisheries to meet up with the Director of Livestock Services, Dr Recaredo Ugarte. For several years now there have been attempts to export some Falkland Islands wool to Uruguay for further processing but these attempts have come to nothing as a result of problems connected with the import requirements of the Uruguayan authorities. I always thought that these problems were rather minor in nature but despite frequent correspondence between the Uruguayan Ministry officials and myself we never managed to resolve our differences. My recent visit to Montevideo, on mainly Fisheries related business, seemed like an ideal time to try and sort out the problem once and for all.

Well, I am happy to say that the discussions went very well and I can see no reason why we shouldn't be able to export greasy wool to Uruguay as soon as anybody wants to. I have to sign a sanitary certificate to accompany the wool exports and in that sanitary certificate I have to attest to 7 conditions that wool from the Falkland Islands must meet. The last four all relate to the manner in which wool is stored and transported and control of this is in your hands not mine. The four points are as follows:

1. That the wool (bales, bags) are properly identified as from leaving the establishment of origin to the place of storage.
2. That the bales have been stored in warehouses for a minimum period of 30 days without being in contact with any source of contamination.
3. That the wool is stored in new wool sacks, never previously used, and without blood or dung stains on them; and
4. That the vehicles and lorries used for the transport of wool to the warehouse have been previously washed and disinfected with products suitable for the destruction of viral agents.

To the best of my knowledge FI wool producers comply with the first three points (please tell me if this isn't the case) but I was unsure exactly what the Uruguayans were wanting in point 4. Discussions with Dr Ugarte have made this much clearer. If you are using a lorry or some other vehicle solely for transporting wool or other dry materials then the lorry should be clean of any obvious dust or dirt prior to transporting the wool bales. This can be achieved by a good sweeping out of any accumulated dust or dirt. If, however, you sometimes use the same lorry for transporting live animals as well as wool sacks then the interior of the lorry should be thoroughly cleaned out and disinfected (and left to dry) before the wool sacks are loaded. The best disinfectant to use would be a dilute solution of common household bleach (sodium hypochlorite). Just be careful when using this not to inhale it or splash it on the skin or in your eyes.

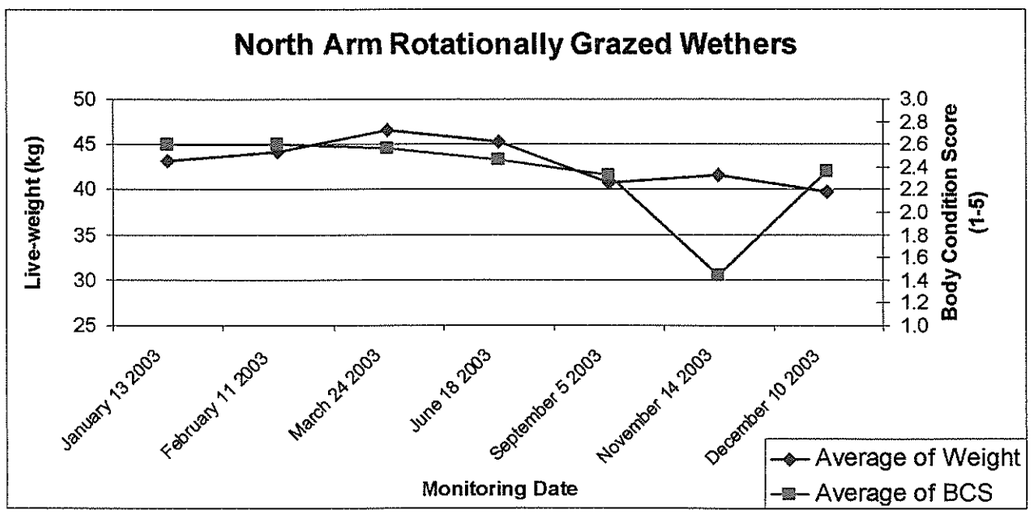
If any farmer reading this thinks that they would have difficulty in complying with any of the above points then please let me know. Otherwise I can see no reason why Falkland Islands wool shouldn't be perfectly safe to export to Uruguay.

NORTH ARM ROTATIONALLY GRAZED WETHERS - SUMMARY OF NUTRITIONAL PERFORMANCE OVER THE YEAR 2003

By Niilo Gobius

The performance of the rationally grazed group of wethers at North Arm is summarised in Figure 1.

Figure 1: Live-weight and body condition score (BCS) of rotationally grazed wethers at North Arm in 2003.



Unfortunately the wethers were not weighed when the flocks were initially amalgamated and the rotational grazing commenced in December 2002 so we Unfortunately the wethers were not weighed when the flocks were initially

amalgamated and the rotational grazing commenced in December 2002 so we do not have a starting point. However, sheep were still being added to the flock in January so perhaps the January weighing is more realistic.

Figure 1 shows that between January and March 2003 the wethers gained an average 3.3 kg of live-weight, while condition score remained constant at 2.6 (out of a possible 5).

From March through to September 2003, the wethers lost 5.85 kg and ¼ of a condition score, with most of this loss occurring from late June. A loss or gain of one condition score in crossbred sheep is roughly equal to a live-weight change of 12 kg.

From September through to mid-November, the wethers gained 0.9 kg to 41.6 kg. However, a change in person conducting the condition scoring resulted in an average BCS for the wethers of 1.44. This is not possible. As explained previously, when BCS drops by 0.9 of a score, average live-weight is expected to drop by about 10 kg. Clearly it did not. This highlights the need for the same person(s) to conduct the condition scoring, and score consistently, each time.

Overall the wethers are in good condition. I regularly weigh ewes that are in much poorer condition and still produce lambs. It will probably be stated that the wethers are not in as good a condition as they normally are in summer and I believe this is a function of the grazing system.

I believe that rotational grazing systems in the Falklands will produce sheep that do not experience very large summer weight gains followed by large winter weight losses, as is seen with continuously grazed sheep. I believe this because under continuous grazing there is a greater build up of forage in summer, allowing the stock to select a higher quality diet and grow quicker. However, because the accumulated forage can not be consumed quickly enough, there is a greater amount of poor quality forage transferred into winter and thus greater winter weight losses also occur. Under rotational-grazing the forage grown throughout the year is consumed more rapidly and not allowed to build up, therefore the quality selected and weight gain is not as spectacular. However, the forage quality in winter is better and weight loss is not as severe because the forage is not as old and rank as under a continuously grazed system.

The evenness of the BCS of individuals in the flock supports the above argument. Analysis of the BCS data throughout the year has shown that if we condition score only 25 sheep in the flock of 14,000 we can expect the average BCS to be within 0.1 condition scores of the BCS average obtained if we had scored all 14,000 wethers. This means that there is not much variation within the flock and therefore we are not seeing many very fat or very skinny animals in the flock. The grazing system has evened out the peaks and troughs in the annual feed plan, and has produced a more even line of stock.
From a more even condition of the stock we could expect that death rates would decrease. As the 'tail' (or animals in poor condition) of the flock is not so large, less animals would be expected to die over winter.

This is a letter that was sent out to all farmers and tour operators in early November 2003. Just recently people have been contacting me for a copy. Therefore, I think it's a good idea to have it published for a record. **Charlene Rowland, Personal Business Adviser, FIDC, Stanley**

ACCIDENT CLAIMS - REDUCTION OF RISKS

Falkland Islands Tourism have found a British company prepared to look at insuring Falkland Islands tourism businesses and hope soon to be able to give some idea of premium levels. In the meant time, tour operators, farm owners and others whose clients are tourists should be aware that you can reduce your risk of liability claims being made against you. You can do this by being able to show that you have acted responsibly and discharged your duty of care to those to whom you are providing a service. This involves your considering and taking all reasonable steps to ensure the safety of the tourist who is in your care.

It is the responsibility of each operator to take advice and to decide on how to protect their own business. I am pleased to make some practical suggestions that you might consider when making your plans for the coming season. Whilst operators may feel confused by what can be conflicting advice, some measures are better than no measures.

1. **Visitors' Guides** (FIT will help members with writing, production and make a contribution towards cost):

a) Country Code, similar to the one produced by Falklands Conservation, but tailored to your particular requirements and the flora and fauna on your land.
b) Specific advice and warnings (tailored to your individual circumstances) for example:
   - Advise tourists to keep to paths and to follow the directions of any guide.
   - Warn of the risks of uneven/rocky/steep terrain, high winds at cliff tops, penguin burrows, skua/Caracara attacks, minefields, dangerous old jetties etc.
c) Disclaimer asking visitors to sign that they have read and understood the warnings in the handout, have made the decision to continue with their visit and accept full personal responsibility for their own safety.

A disclaimer may have very limited value in stopping a claim. However, it can help show that you did take reasonable care as to safety and that the tourist is informed of risks.

2. Signage: Welcome signs are a good idea, but can include a general warning, to draw visitors' attention to the Visitors' Guide.

Welcome to .....

Please read the advice in the Visitors' Guide, which, if followed, should enable you to enjoy your visit without harm to yourself or to the natural environment. This is not a park, but a wild and remote place which you visit at your own risk.

Specific Warning Signs: jetties and piers, cliff tops, tussac plantations, gates and 'pasa libres' remember the majority of your visitors may be townsfolk, who may be unaware that grass and wet timber can be slippery, that rocky terrain might lead to damaged ankles or that penguin burrows might be liable to collapse.

However, remember that simply erecting a warning sign does not protect you from a claim in the event of injury. You must still ensure that visitors are likely to read and understand the sign and you should be aware that erecting a sign does not discharge you from the duty in any event to minimise any foreseeable risk that you reasonably can.

Lodges, and self-catering cottages should follow the guidelines on signage and fire safety available from the Fire Station.

3. Personal guides: Where possible, insist that visitors are guided by yourself or someone competent, particularly around wild-life sites or when fishing, horse-riding or driving. In the latter case make sure that visitors are aware of the terrain and instructed in basic off-road techniques and that is it documented.

Tourists are paying for a service – as a result you accept responsibility for certain risks. It is reasonable to expect the tourist to pay more for a fully briefed guide who takes personal care of the tourist's safety, but even those who charge a minimal landing fee and give no direct supervision must still accept some responsibility for the risks facing the tourist.

In the event of a claim being made against you, it is important that not only did you take the care to warn of the risks, but also that you can prove that you did so.

I hope some of these suggestions will help you in establishing a much safer environment for your tourists. The key thing is that they should be warned of all possible dangers before venturing onto your land and that you should be able to prove that you have issued adequate warnings.

Should you want more clarification or help in making any plaques or advice on a disclaimer, please don't hesitate to ask.

SAMPLE ONLY –

You MUST seek Legal Advice on producing your own Disclaimer.

Farm name and logo

Date:_____

Name of visitor:_____

The Owners of (Farm name) (Mr & Mrs Owners) do not assume any responsibility for any injury to visiting tourists/family/friends (fare paying or not) or for any financial loss, sustained as a result of carelessness, negligence or incapacity of a visitor to look after themselves in such natural environment.

DISCLAIMER

I recognise that (farm name) is potentially dangerous and I make the visit at my own risk.

I acknowledge that I have been fully warned that; The terrain may be uneven, slippery and treacherous, that wildlife is potentially dangerous (especially skuas, Caracaras, sea lions and seals) and that, I need to take care to ensure my well-being, particularly when crossing fences and streams or when near cliff tops, steep-side slopes and penguin burrows.

I will be responsible for all the costs and liabilities arising out of an accident caused through my own negligence at (Farm name).

Printed full name:_____

Signature:_____

FALKLAND ISLANDS DEVELOPMENT CORPORATION

HOME PACK POWER SCHEME

The principle of the Scheme is to assist with the cost of a 24-hour power system for buildings in Camp related to a Camp based commercial activity. There is no renewable energy option offered with this scheme at this stage. The existing diesel generator has to be used to charge the battery.

TERMS AND CONDITIONS OF THE SCHEME.

1. **General**
   a) The present electrical installation must be tested by a qualified person in accordance to the Schedule based on the 16th edition of the IEE.
   b) Any existing generator and associated equipment must be compatible with inverter.
   c) The installation must be completed by the approved supplier or his agent.
   d) The contract to supply, fit, warranty, maintain and repair equipment under this scheme is a private agreement between the applicant and the supplier.
   e) Grants will be considered for approval by the FIDB or delegated authority.

2. **Applicant's obligations**
   The position for the equipment must be appropriate and suitable in terms of safety.
   It must offer adequate weather protection for the inverter and batteries.

3. **List of approved equipment.**
   a) Pure sine wave bi-directional inverter Continuous output at least 2 kW
   b) 24 Volt sealed maintenance-free deep cycle (traction) battery pack 200-400Ah capacity
   c) Battery condition meter (Cruising Equipment pattern or similar)

4. **Grant Assistance**
   Phase 1; Battery, inverter, etc. testing and installation.
   50% grant to a maximum of £2500

5. **Other conditions**
   a) Equipment provided under the scheme may not be sold on for at least 2 years from the commission date unless there is written approval from FIDC to the contrary.

   b) The applicant will comply with manufactures' operating instructions and practices and make regular maintenance checks on equipment as specified by FIDC or the supplier.

   c) Arc welders and commercial equipment must not be operated through inverters.

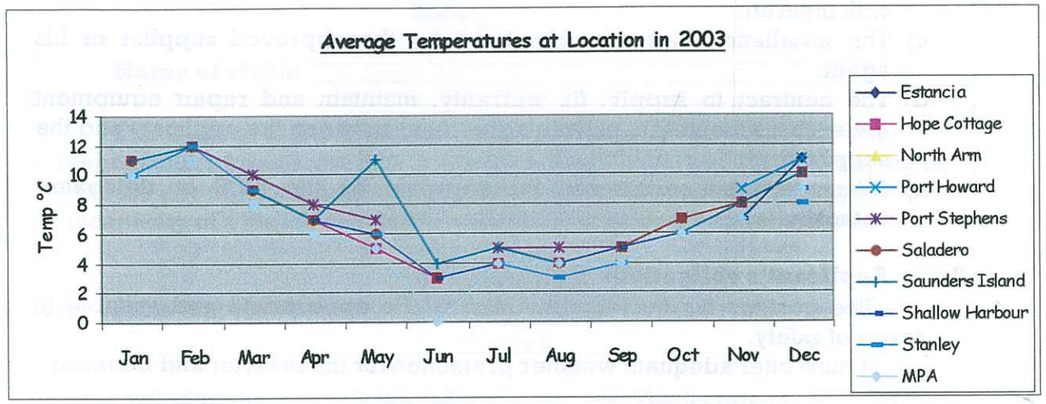
FIDC's main role is to provide financial support and streamline the installation of the systems through a degree of standardisation and is not responsible for spares repairs or breakdowns. After sales service must be arranged with the supplier.

2003 WEATHER

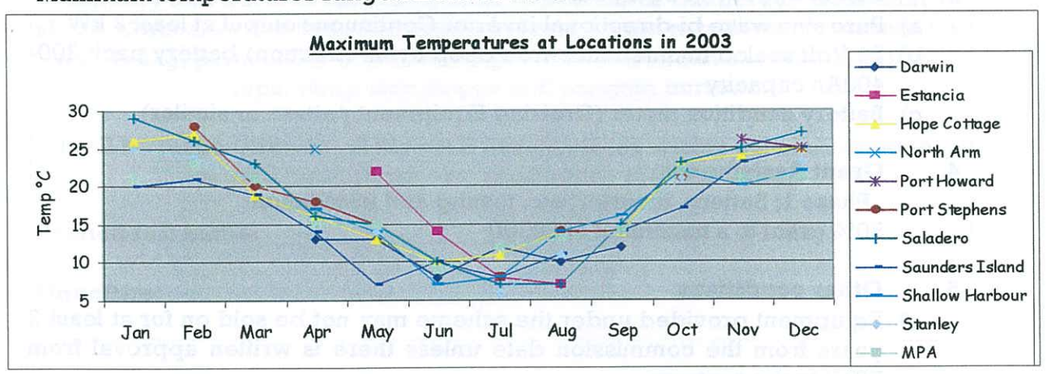
By Priscilla Legg

As promised here's the weather graphs for 2003:

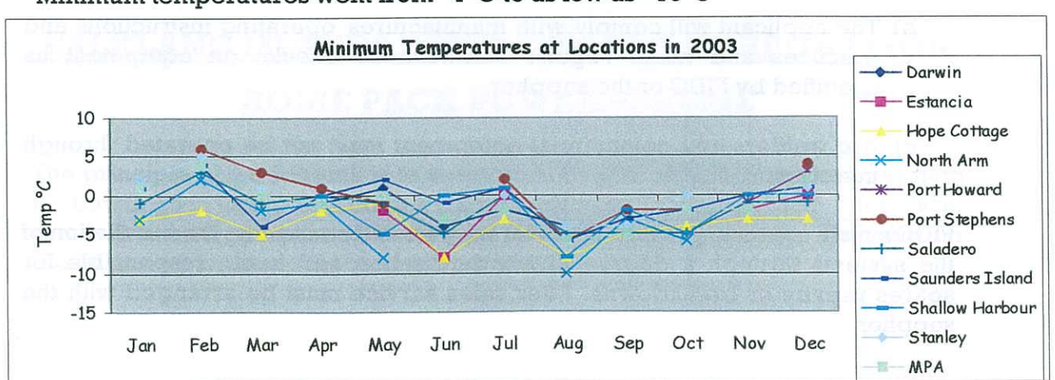
The average temperature throughout 2003 ranged from 6-10°C



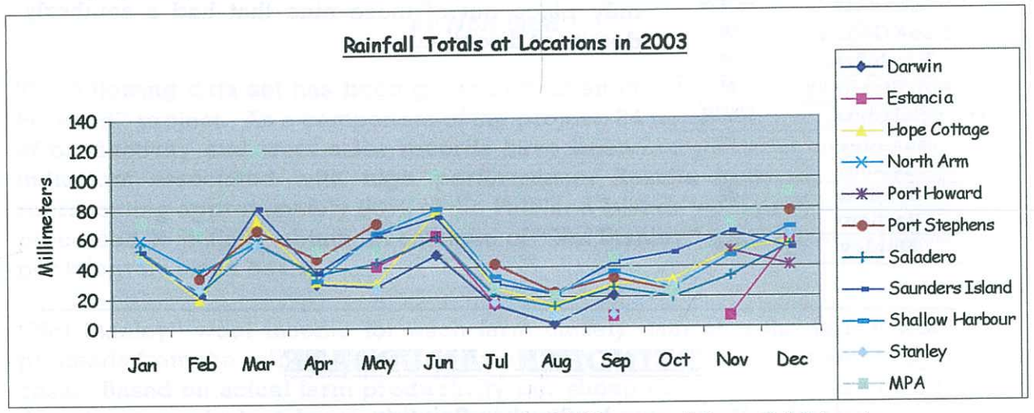
Maximum temperatures ranged from 13-29°C



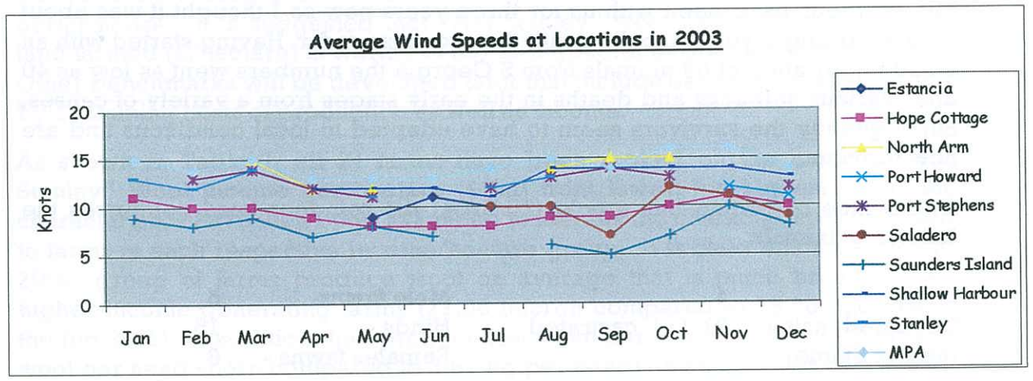
Minimum temperatures went from –1°C to as low as –10°C



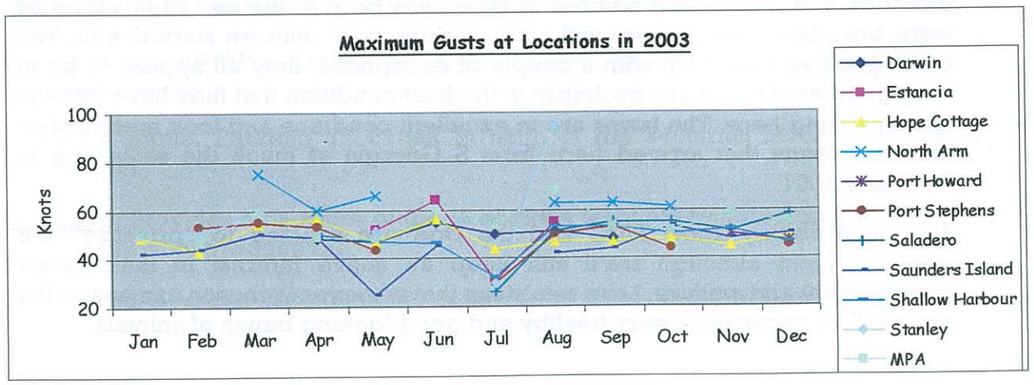
Rainfall totals ranged from 92-742mm. The reason some the yearly totals are so low for some places is because we did not receive data for every month. The average yearly rainfall total for 2003 was 482mm.



Average wind speeds around the islands in 2003 ranged from 8-14 knots.



It was a pretty windy year gust wise with maximum gusts ranging from 50-95 knots.



Dominant Directions in 2003	
Darwin	N
Estancia	WNW
Hope Cottage	W
North Arm	N
Port Stephens	N
Saladero	NNW
Saunders Island	W
Shallow Harbour	N
Stanley	SW

As you can see from the table, a northern wind seemed to be the trend for most places and only three places had a westerly wind. Stanley was the only place out of these nine that had a southerly dominant direction.

REINDEER – AN UPDATE

by Stephen Pointing

The reindeer have been with us for three years now so I thought it was about time we brought you up to date with the progress so far. Having started with an initial importation of 59 animals from S Georgia the numbers went as low as 40 after various setbacks and deaths in the early stages from a variety of causes. Subsequently the survivors seem to have adapted to local conditions and are now thriving.

At the time of writing this article (20/2/04) the reindeer herd comprises the following animals:

Stags –	4	Male fawns-	5
Castrated males -	21 (+1 castrated	Hinds -	15
male in Stanley)		Females fawns -	6

Total in herd - 51

So after an initial decline in numbers things are now starting to go in the right direction and if the same number of fawns are born at the end of this year as were born last year then we will have slightly more than we started with. The other good news is that, with a couple of exceptions, they all appear to be in very good health and are probably in the best condition that they have been in since arriving here. The fawns are in excellent condition and look much better than the fawns that arrived here from S Georgia at much the same age in February 2001.

As you probably know FIDC and the DoA are seeking to "privatise" the reindeer herd although we'll still keep an active interest in their future management and welfare. I can safely say that whoever is chosen to manage the herd will be receiving a very healthy and good-looking bunch of animals.

WOOL INCOME PER HECTARE FARM COMPARISON 2002/2003 SEASON

By Neil Judd

The following data set has been generated as an initiative of the DoA's "Way Forward" project. As a component of the project, 34 farms with a complete set of productivity and wool sales records have been compared to identify key indicators associated with high performance. Results from all 34 farms, representing approximately 50% of the Falkland Islands wool production were processed to initially obtain an estimate of "Net Stanley" wool income (pence per kilogram clean basis).

"Net Stanley" wool income for each farm closely estimates the farm's wool proceeds from the selling of its annual wool clip, net of commission and freight costs. Based on actual farm productivity per sheep shorn, per hectare or per dry sheep equivalent basis, the calculated measure of "Net Stanley" wool income can be used to derive a number of indicators to compare overall farm performance. It is suggested that "Net Stanley" wool income per hectare of land farmed (£/hectare) is worthy of use as a general performance benchmark. Other benchmarks will be developed later that include estimates of profitability by examining costs of production as well as income.

As shown in Table 1, all 34 farms have been ranked on the basis of "Net Stanley" Wool Income per hectare (£/ha) from lowest too highest. All other characteristics have then been examined to identify the characteristics common to farms in each respective income/hectare group. It is clear that the "bottom 20%" group of farms produce wool on average that is much broader than higher income generating farms (27.06 micron compared to 25.26 micron for the top 20%). In addition they produce less wool per sheep shorn (3.13 greasy wool per head shorn compared to 3.67 kg per head) and vastly less clean wool per hectare than high income generating farms (0.98 kg clean per hectare compared to 2.25 kg clean per hectare). It is obvious that lower production levels per unit of land and per sheep, combined with lower wool value per kilogram, compound to have a dramatic impact on farm income.

The report provides details for each of the 34 farms for the following characteristics:-

- Farm Name. Random allocation to each of the 34 farms involved in the project.
- Yield. Provides a measure of the % of clean wool obtainable from the farms greasy wool production.
- Micron. Average fibre diameter of the farm for the 2002/2003 season.

- GFW/ss. Farm average greasy fleece weight per sheep shorn (kg/head shorn).
- CFW/ss. Farm average clean fleece weight per sheep shorn (kg/head shorn).
- GFW/dse; farm average greasy fleece weight per dry sheep equivalent (DSE) corrects all stock back to the nutritional requirements of 45 kg wethers. As an example a ewe that rears a lamb has a DSE of approximately 1.5 (needs as much feed as 1.5 mature wethers), mature rams of 2.0 and rapidly growing weaners a DSE of between 1.5 to 1.8
- CWP/ha. Clean Wool Production per hectare farmed (kg/ha).
- "Net Stanley" wool price. Average price (p/kg/clean) obtained after commission and freight costs have been deducted for the 2002/2003 clip.
- £/ha. Calculated from CWP/ha and "Net Stanley". Estimated gross wool income per hectare of land farmed. (Common direct costs incurred in selling wool and freight from Stanley to market have been subtracted).
- Top 20% ranked on £/ha.
- Mid 20% ranked on £/ha.
- Bottom 20% ranked on £/ha.

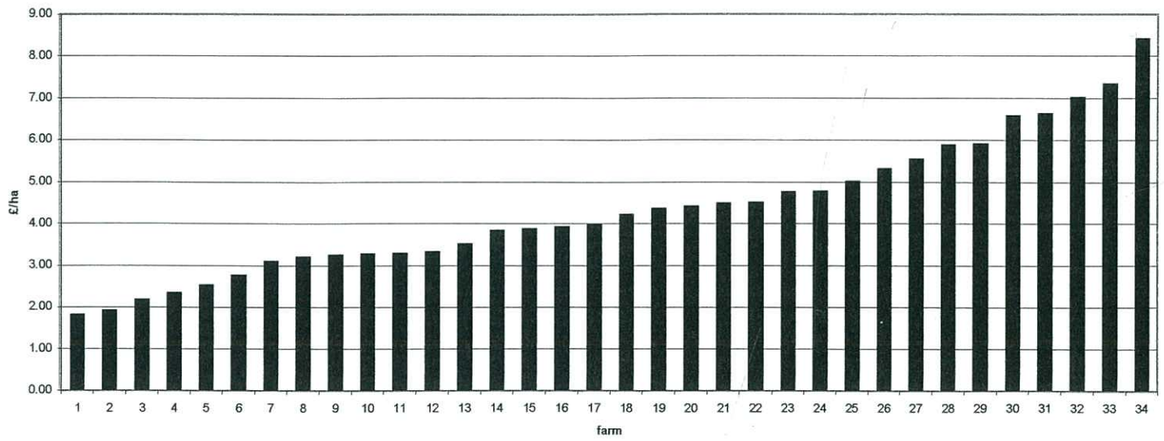
In addition to highlighting the characteristics of farms in the Falkland Islands that were Top 20%, Mid 20% or Bottom 20% for Wool Income Net Stanley/hectare during the 2002/2003 season, a series of graphs have been generated to illustrate other issues, as follows:-

1. Graph 1. Income/ha from wool production for the 34 farms ranked lowest to highest.
2. Graph 2. "Net Stanley" average wool price (pence per kg clean) achieved during 2002/2003 with the clear relationship to farm average micron.
3. Graph 3. Actual average clean fleece weight per sheep shorn for all 34 farms, also shown in relationship to farm average micron. It should be noted that the graph shows a tendency for clean fleece weight per sheep to increase as farm average micron decreases.
4. Graph 4. "Net Stanley" Wool Income per hectare 2002/2003 (£/ha) compared to clean wool production per hectare. A very strong relationship between wool production per hectare and wool income per hectare is shown.
5. Graph 5. Relationship between clean wool production per sheep and clean wool production per hectare. A tendency for clean wool production per sheep to increase with increasing wool production per hectare is shown.

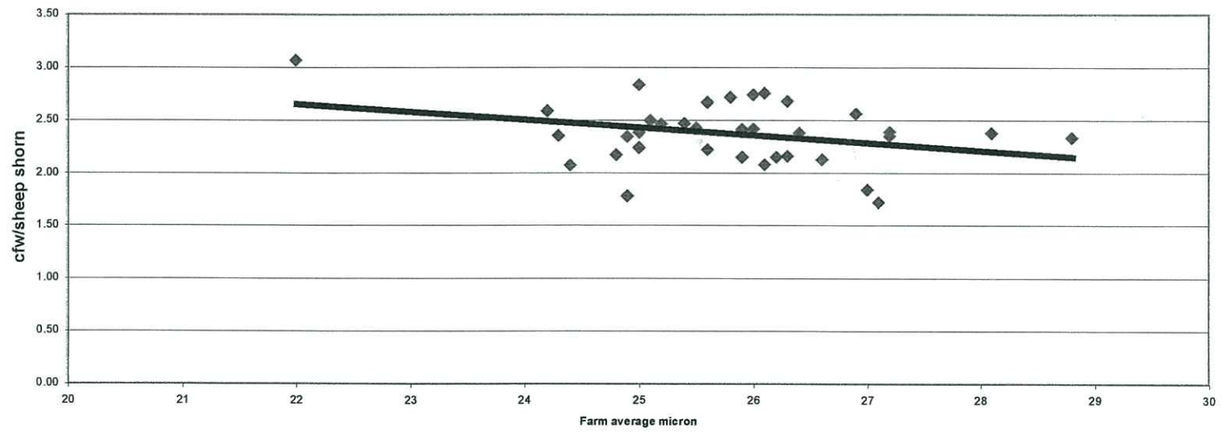
Table 1 Key Performance Indicators 2002/2003 Season

Farm Name	Yield	Net Stanley	Micron	GFW/ss	CFW/ss	GFW/dse	GWP/ha	CWP/ha	£/Ha
1	68.5	241	27.10	3.35	2.29	2.51	1.10	0.75	1.82
2	65.6	258	26.30	3.29	2.16	2.71	1.13	0.74	1.91
3	68.8	320	24.90	2.59	1.78	2.23	0.99	0.68	2.18
4	70.1	246	27.20	3.41	2.39	3.01	1.36	0.95	2.35
5	71.6	212	28.80	3.26	2.33	2.70	1.66	1.19	2.52
6	70.8	240	27.00	2.60	1.84	2.10	1.63	1.15	2.77
7	70.2	227	28.10	3.39	2.38	2.97	1.95	1.37	3.11
Ave bottom 20%	**69.37**	**249.14**	**27.06**	**3.13**	**2.17**	**2.60**	**1.40**	**0.98**	**2.38**
8	66.7	258	26.30	4.02	2.68	3.51	1.86	1.24	3.20
9	61.1	307	25.00	3.90	2.38	3.30	1.73	1.06	3.25
10	64.1	258	26.40	3.71	2.38	3.15	2.03	1.30	3.28
11	69.3	243	27.20	3.39	2.35	2.97	1.95	1.35	3.28
12	64.2	274	26.20	3.35	2.15	2.84	1.89	1.21	3.32
13	70.4	278	26.10	2.95	2.08	2.49	1.80	1.27	3.52
14	67.2	285	25.90	3.58	2.41	3.33	2.00	1.34	3.83
15	58.5	295	26.00	4.13	2.42	3.58	2.24	1.31	3.87
16	62.3	262	25.90	3.88	2.42	3.34	2.41	1.50	3.93
17	65.7	295	25.20	3.75	2.46	3.41	2.05	1.35	3.97
18	67.0	274	26.00	4.09	2.74	3.50	2.30	1.54	4.22
19	62.7	295	24.80	3.47	2.18	2.97	2.36	1.48	4.37
20	65.9	313	24.40	3.15	2.08	2.69	2.14	1.41	4.41
Ave mid 20%	**63.02**	**289.00**	**25.38**	**3.75**	**2.38**	**3.25**	**2.25**	**1.43**	**4.13**
21	70.8	302	25.40	3.49	2.47	2.81	2.10	1.49	4.49
22	64.1	306	24.90	3.66	2.35	3.07	2.30	1.47	4.51
23	64.2	274	25.90	3.62	2.32	3.09	2.70	1.73	4.75
24	67.1	289	25.60	3.98	2.67	3.45	2.46	1.65	4.77
25	76.6	406	22.00	4.00	3.06	3.05	1.61	1.23	5.01
26	67.2	259	26.10	4.10	2.76	3.59	3.05	2.05	5.31
27	68.7	300	25.00	3.26	2.24	2.54	2.69	1.85	5.54
28	73	284	26.90	3.51	2.56	2.98	2.84	2.07	5.89
29	67.3	276	25.80	4.04	2.72	3.61	3.18	2.14	5.91
30	70.8	307	25.10	3.53	2.50	3.04	3.03	2.15	6.59
31	68.1	325	24.30	3.46	2.36	2.90	3.00	2.04	6.64
32	70.5	329	24.20	3.67	2.59	3.16	3.03	2.14	7.03
33	69.9	325	25.00	4.06	2.84	4.06	3.27	2.29	7.34
34	70.3	287	25.50	3.45	2.43	2.86	4.17	2.93	8.41
Ave top 20%	**69.99**	**304.71**	**25.26**	**3.67**	**2.57**	**3.23**	**3.22**	**2.25**	**6.83**

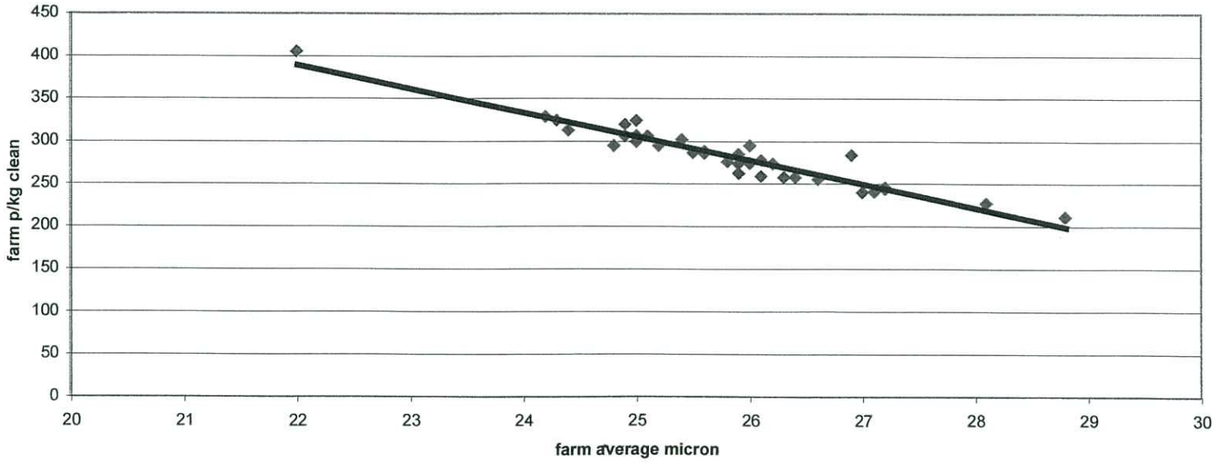
Income £/ha from wool production 2002/2003 season



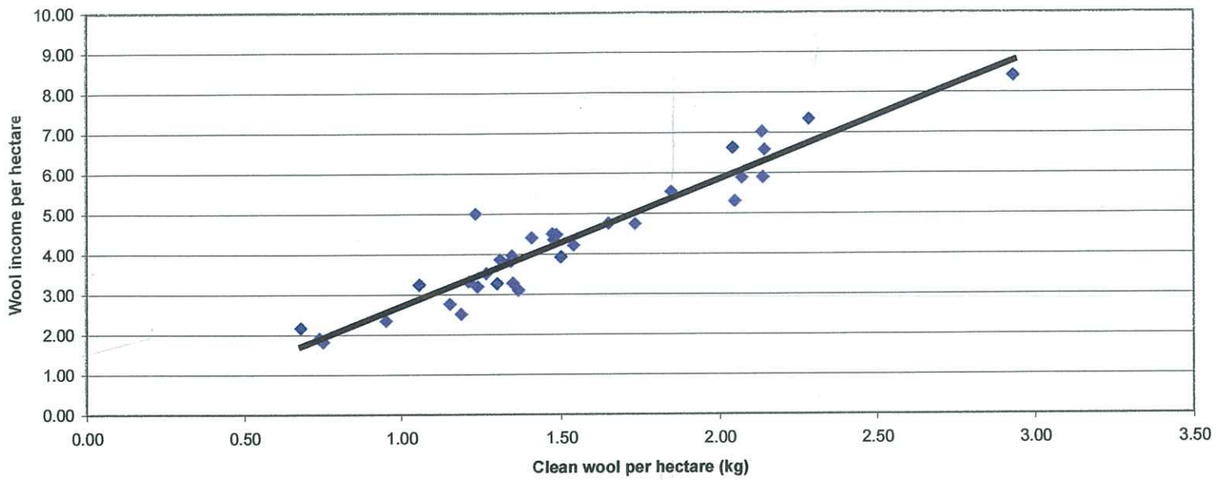
Clean Fleece Weight per sheep shorn 2002/2003 season



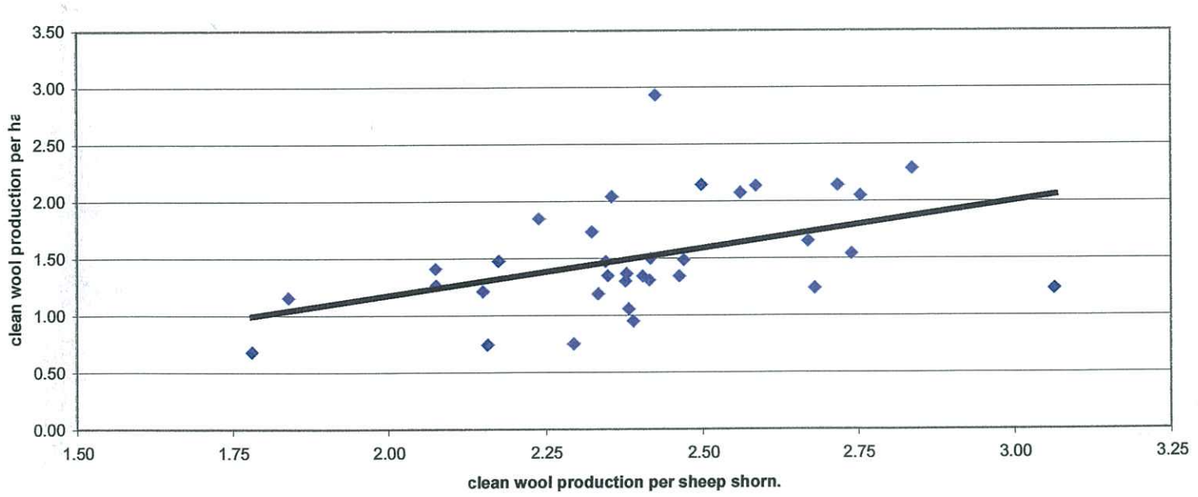
Farm Average Wool Price 2002/2003 season. (p/kg clean)



Wool Income per Hectare 2002/2003 season



Relationship between CWP/ha & CWP/sheep shorn.



E-MAILING THE DEPARTMENT OF AGRICULTURE

Due to recent computing changes within the Department of Agriculture, the e-mail address doa.fig@horizon.co.fk no longer exists. Can you please ensure that from now on you use staff members desktop e-mail addresses, eg; **nheathman@doa.gov.fk**

THE COMPLETE ARGUMENT FOR DELAYING THE MONTH OF LAMBING IN THE FALKLAND ISLANDS

By Niilo Gobius

Investigations into the effect of lambing month on lamb production were initiated as anecdotal evidence was put forward that the conversion of some farms to pre-lamb shearing had resulted in a 10% increase in lamb marking percentage. It was my belief that the increase was not only due to 'pre-lamb shearing' *per se*, but due to matching the lambing time to greater pasture availability and more favourable weather conditions.

Investigations were conducted on a number of factors that contribute to lamb production and survival:

1. Pasture growth and availability throughout the year and its relation to lambing date.
2. The effect of seasonal weather patterns on new-born lamb survival in the Falklands.
3. The effect of later joining of ewes on potential birthrates in the Falklands.
4. The effect of temperatures between July and October on lamb marking percentages in the Falklands.
5. The effect of later lambing on lamb growth rates in the Falklands in 2002.
6. The effect of later lambing on marking % in the Falklands in 2002.
7. The ability to match ewe and lamb energy requirements to pasture growth (energy availability) when lambing in September, October, November and December.

1. PASTURE GROWTH RATES THROUGHOUT THE YEAR

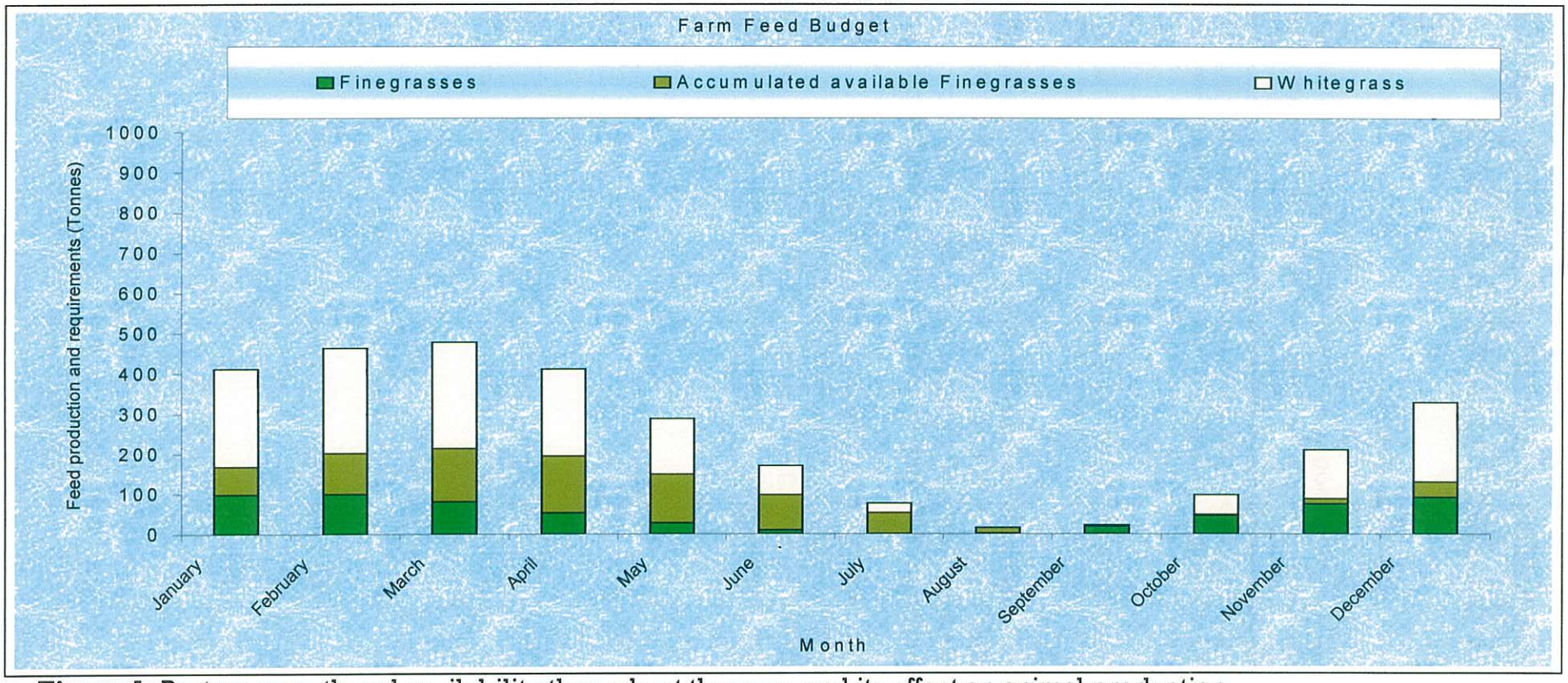


Figure 1: Pasture growth and availability throughout the year, and its effect on animal production.

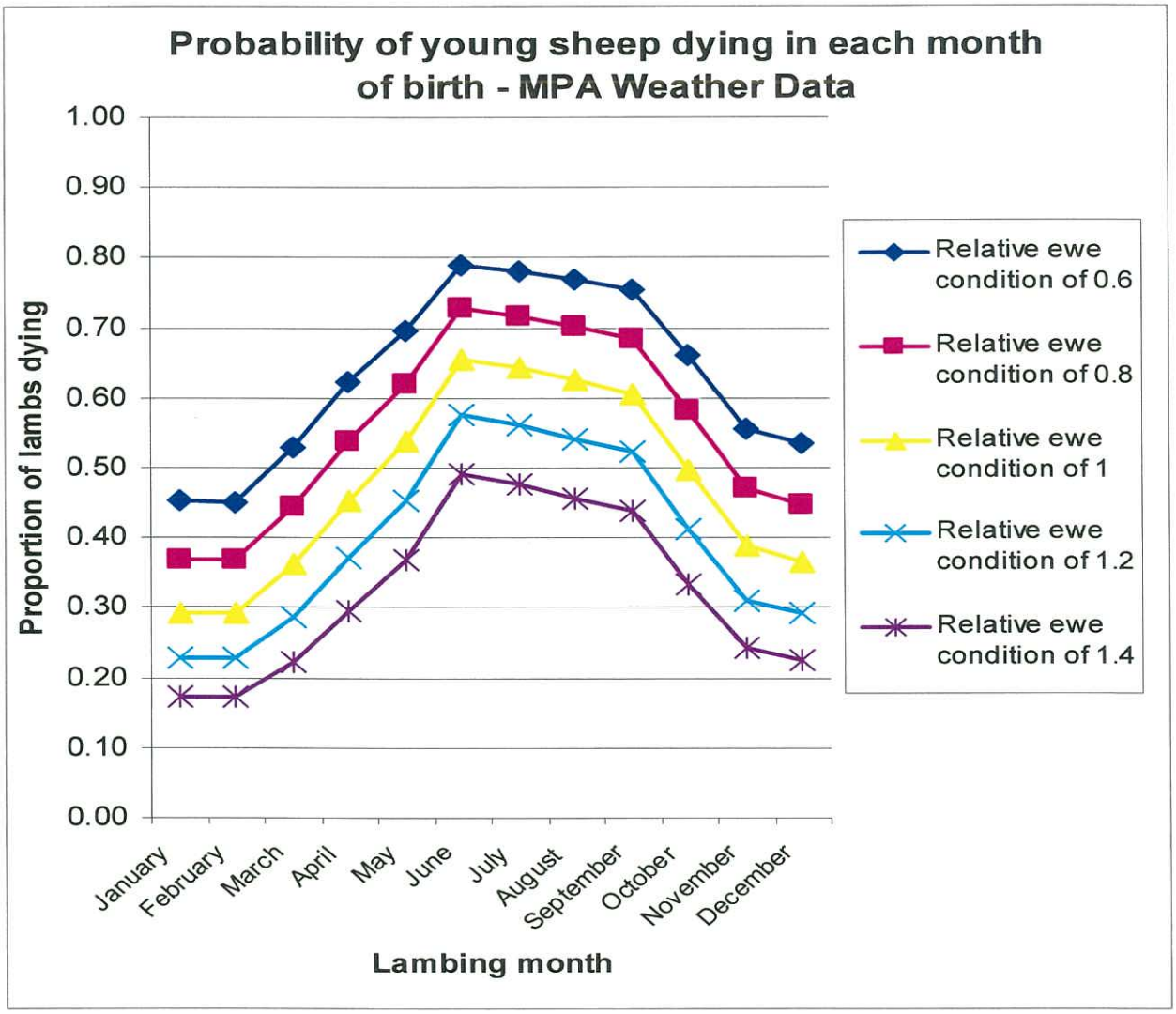
The data used to initially track monthly growth rates was taken from Austin Davies End of Contract Report (1988). This has since been corroborated by my own research and also matches monthly soil and air temperatures well. The bright green columns represent the monthly growth of finegrasses throughout the year. A rule-of-thumb is to lamb 4 weeks before peak pasture growth. Figure 1 shows that finegrass growth does not peak until December, therefore lambing should be timed for November.

The growth of Whitegrass, the cream columns, tends to peak a little later than the finegrasses.

The brown-green columns represent the accumulated availability of finegrasses after the sheep or cattle have consumed their fill in a month. As can be seen this accumulated finegrass bulk contributes the greater proportion of the feed from February through to August. Very little whitegrass is consumed until late in spring.

2. THE EFFECTS OF WEATHER ON LAMB SURVIVAL

Figure 2: The effect of seasonal weather patterns on new-born lamb survival in the Falklands



Average daily wind speed, air temperature and rainfall at MPA have been used to predict the weather effects on survival of young lambs soon after birth in the Falklands. Obviously, no area in the Falklands has the same weather as MPA but the same trend will be seen in other parts of the islands. The equations used are made available in the SheepExplorer spreadsheet developed by CSIRO Plant Industry, Australia.

In general, Figure 2 shows that lambing at any time between March and October results in a greatly increased chance of lambs dying from exposure to weather than if lambing between November and March.

The months where the least mortality in young sheep would occur is from November to February. However, as conception rates will most likely be constrained by lambing in December, January or February (Figure 3), November appears to be the lambing month with the best weather conditions for lambing.

Figure 2 also shows that the better the condition of the ewe at lambing the better the chances of survival are for the lamb. A ewe in relative condition (RC) of 0.6 is very poor, in RC of 1.0 is in average condition, and in RC of 1.4 is in excellent condition.

3. THE EFFECTS OF LAMBING DATE ON CONCEPTION RATES

Figure 3: The effect of later joining of ewes on potential birthrates in the Falklands

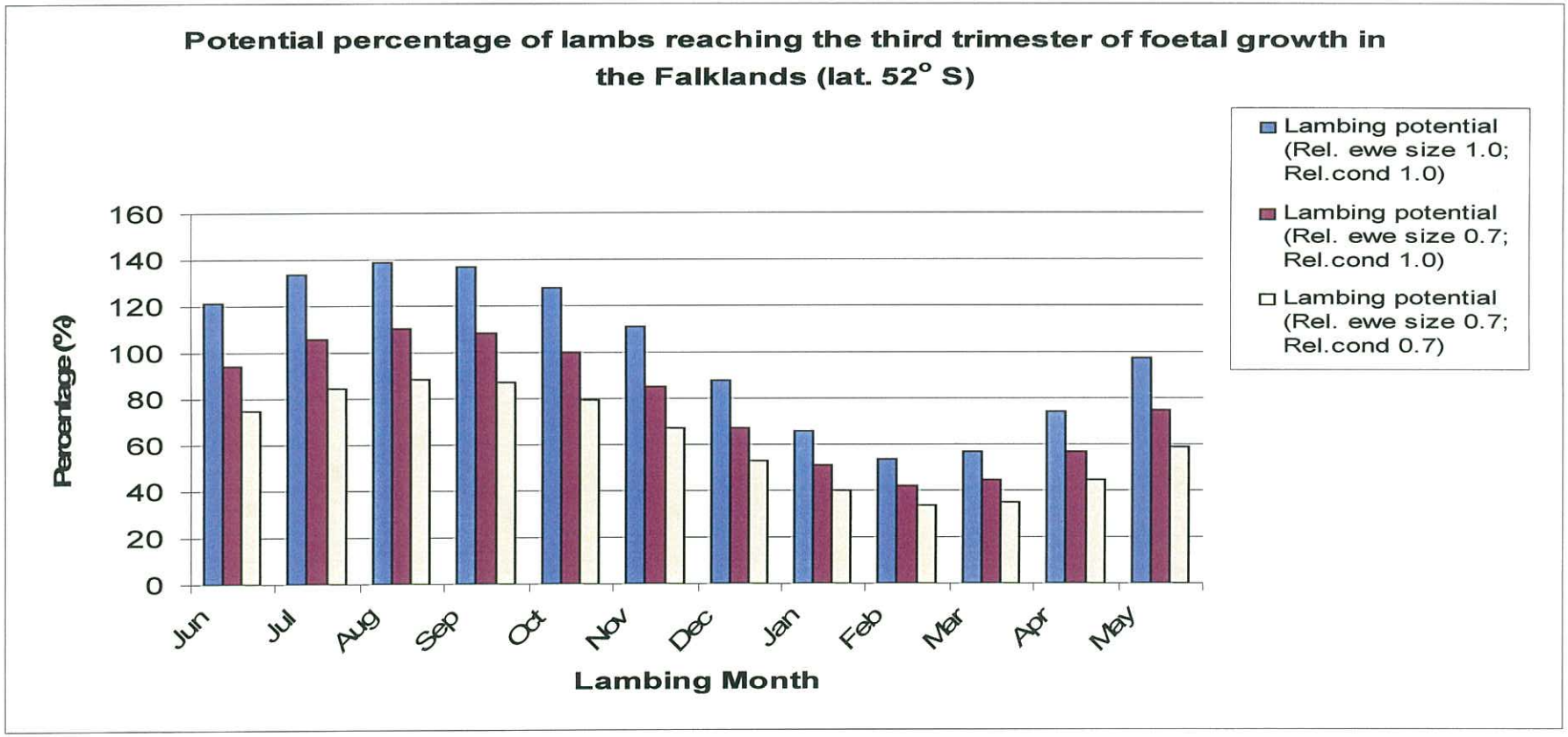
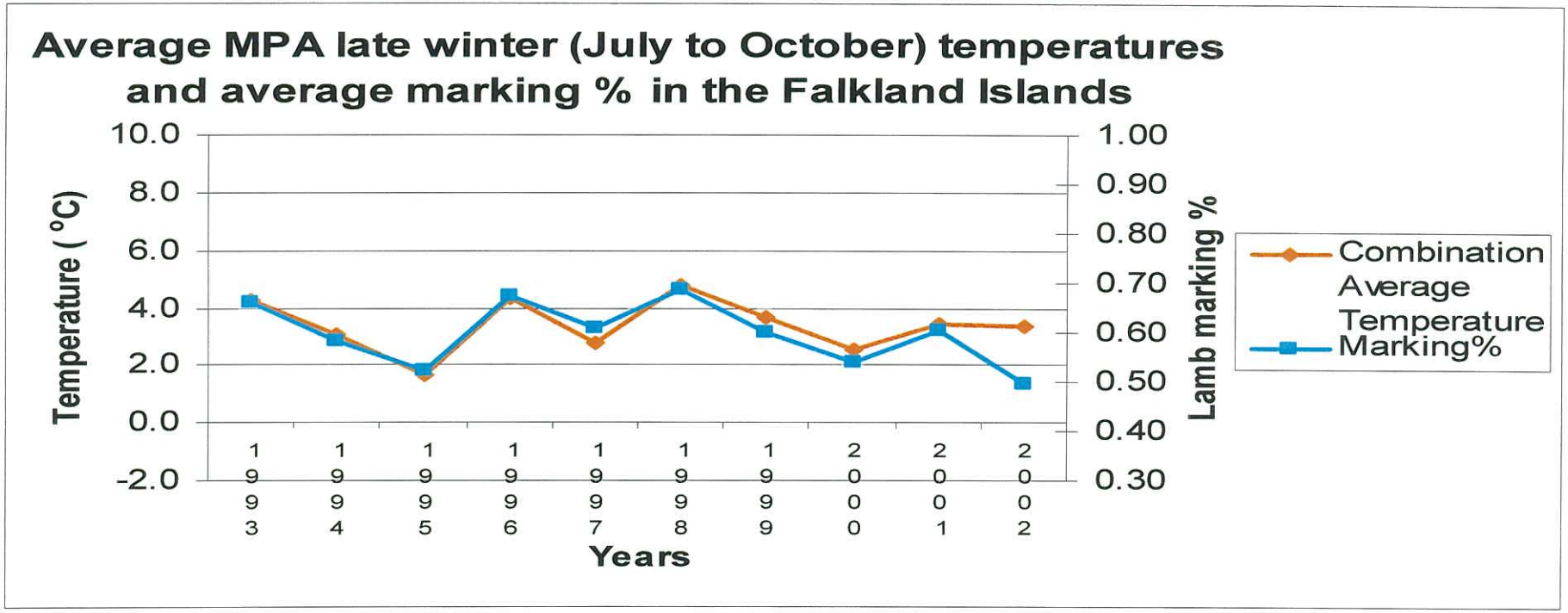


Figure 3 shows the effect of joining date on the percentage of lambs reaching the final stages of pregnancy, or potential birthrate. The figure shows that for the Falkland Islands, latitude 52°S, the natural peak lambing period will be in July-August-September. Delaying the lambing until October or November will reduce the potential birth rate but as shown in Figures 1 and 2, this should be greatly offset by an increase in lamb survival from more feed on the ground and better weather conditions. Similarly to Figure 2, Figure 3 shows that the greater the body size and condition of the ewe the greater its lamb producing potential.

4. THE EFFECTS OF WINTER TEMPERATURES ON LAMB MARKING %

Figure 4: The effect of air temperatures between July and October on lamb marking percentages in the Falklands



The above figure graphs the annual average Falkland Island lamb marking % (from the Farming Statistics 1993-2002) against the average air temperatures throughout July to October in the same lambing year. From 1993-2001 there was a remarkable relationship between this winter/spring temperature and marking %.

In 2002, the relationship fell away markedly. I believe this was due to poor pasture growth in the 2001/2002 summer, which was the driest on record. Consequently, little quality feed bulk would have been accumulated for the winter period.

Figure 5: The relationship between temperatures between July and October and lamb marking percentages in the Falklands.

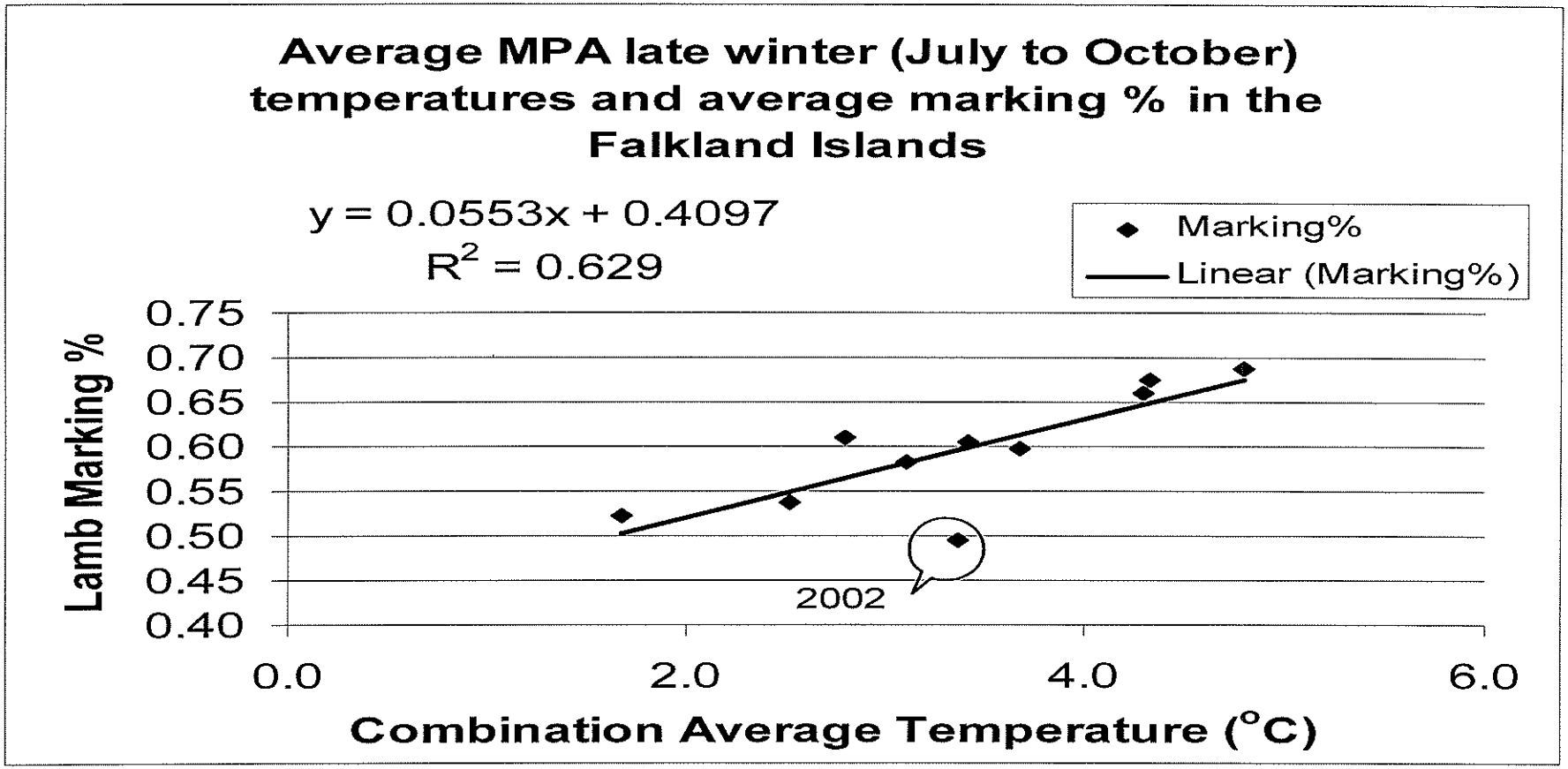


Figure 5 shows that when the last 10 years of data is included (including 2002), July to October average temperatures can explain 63% of the annual changes in Island-average lamb marking %.

However, the following Table 1 Analysis No 14, shows that when the 2002 data is excluded, July to October average temperatures can explain nearly 88% of the annual changes in Island-average lamb marking %.

Whether the relationship is due to a direct effect on the animals or its effect on pasture growth is difficult to say but it is likely to be a combination of both effects.

Table 1. Lamb marking % in the Falkland Islands shows remarkable correlation with average air temperatures throughout July to October.

Correlation between average maximum and minimum temperatures fom June to December			Correlation coefficient
Analysis No.	Winter/Spring Period	No. months	r^2
1	June - July	2	0.51
2	June - August	3	0.60
3	June - September	4	0.80
4	June - October	5	0.81
5	July - August	2	0.65
6	July - September	3	0.86
7	July - October	4	0.86
8	August - September	2	0.66
9	August - October	3	0.76
10	August - November	4	0.66
11	September - October	2	0.59
12	September - November	3	0.45
13	September - December	4	0.17
14	Combination - 5 & 6		0.88

Table 1 shows the relationship between temperatures throughout different late winter/spring periods and the Falkland Islands average lamb marking %. The column on the far right shows the correlation between temperatures in a specific time period and the average lamb marking % for the Falklands. A correlation of 1.0 means that it is almost certain that temperatures would determine marking %. A correlation of 0.17 (Analysis 13) means there is very little relationship between temperature and marking %.

The table shows that the greatest relationship with marking % is its association with the July to October period, a period corresponding with the greatest nutritional demands on a ewe giving birth in September or October.

This July to October period is also the period in which most lambs are born in the Islands. Perhaps if more lambs were born in November, temperatures would not have as great an effect and the relationship would be poorer.
We can see that as we move in either direction away from the July to October period, the relationship becomes much poorer. This may be due to the majority of lambs currently being born in September/October, or it may be due to more favorable temperatures.

5. THE EFFECTS OF LAMBING DATE ON LAMB GROWTH

Figure 6: The effect of later lambing on lamb growth rates in the Falklands

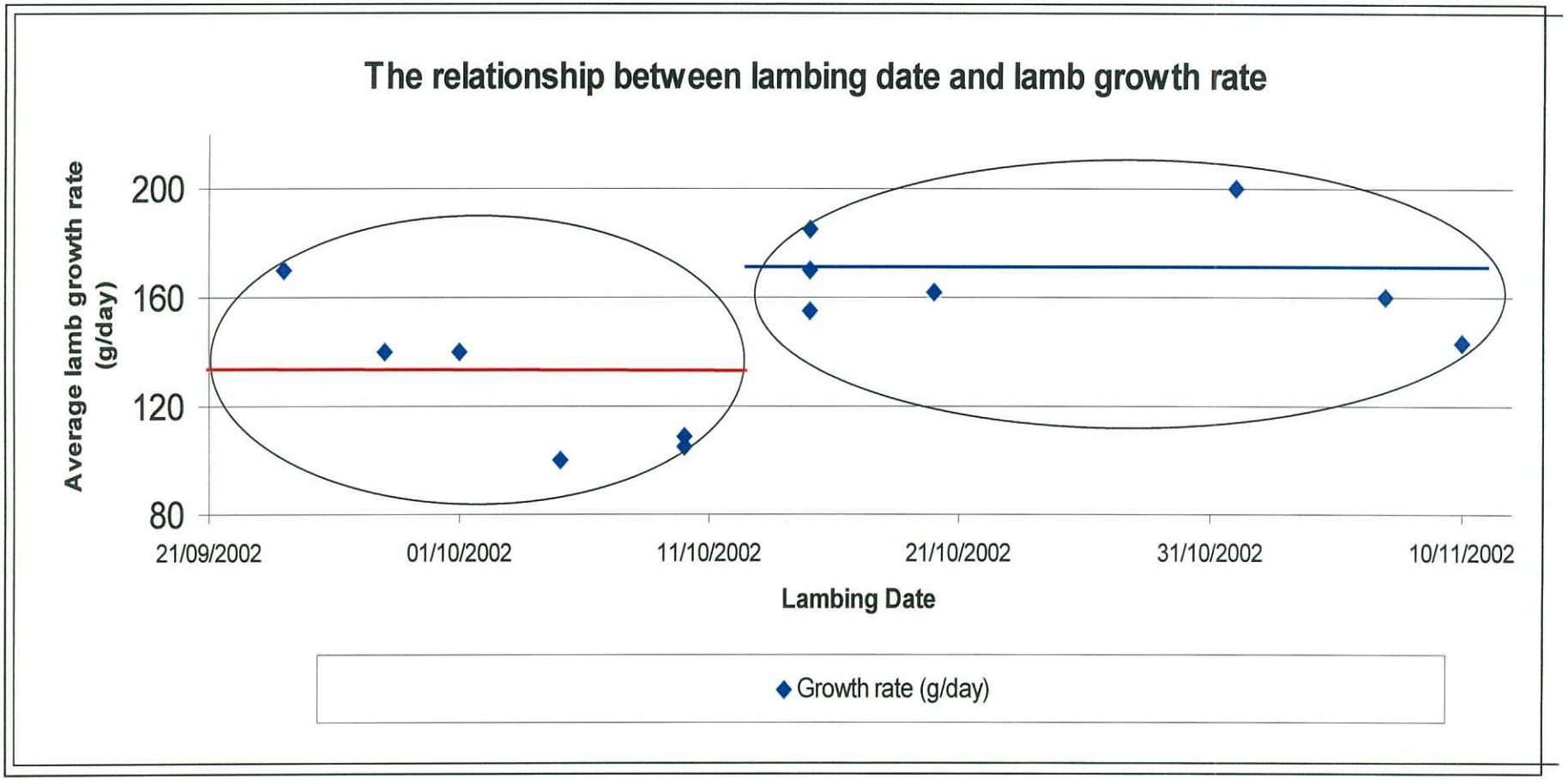


Figure 6 shows a graph of the daily growth rate of lambs from 13 different flocks around the Falklands plotted against the initial lambing date of these flocks. To calculate lamb growth rates I have assumed that all lambs from a particular flock were born on the same date, the date when lambing was estimated to start. Another assumption I have used is that all lambs born, on each farm, weighed 3.5 kg at birth.

As can be seen from the Figure 6, lambs born after mid-October generally grow at a faster rate than early born lambs. There is not a nice linear relationship because the quality and quantity of grass in different camps varies so much. However, the fact

that later born lambs tend to grow at a faster rate supports the evidence that grass growth doesn't really start to motor in the Falklands until November.

6. *THE EFFECTS OF LAMBING DATE ON LAMB MARKING %*

Figure 7: The effect of later lambing on marking % in the Falklands in 2002

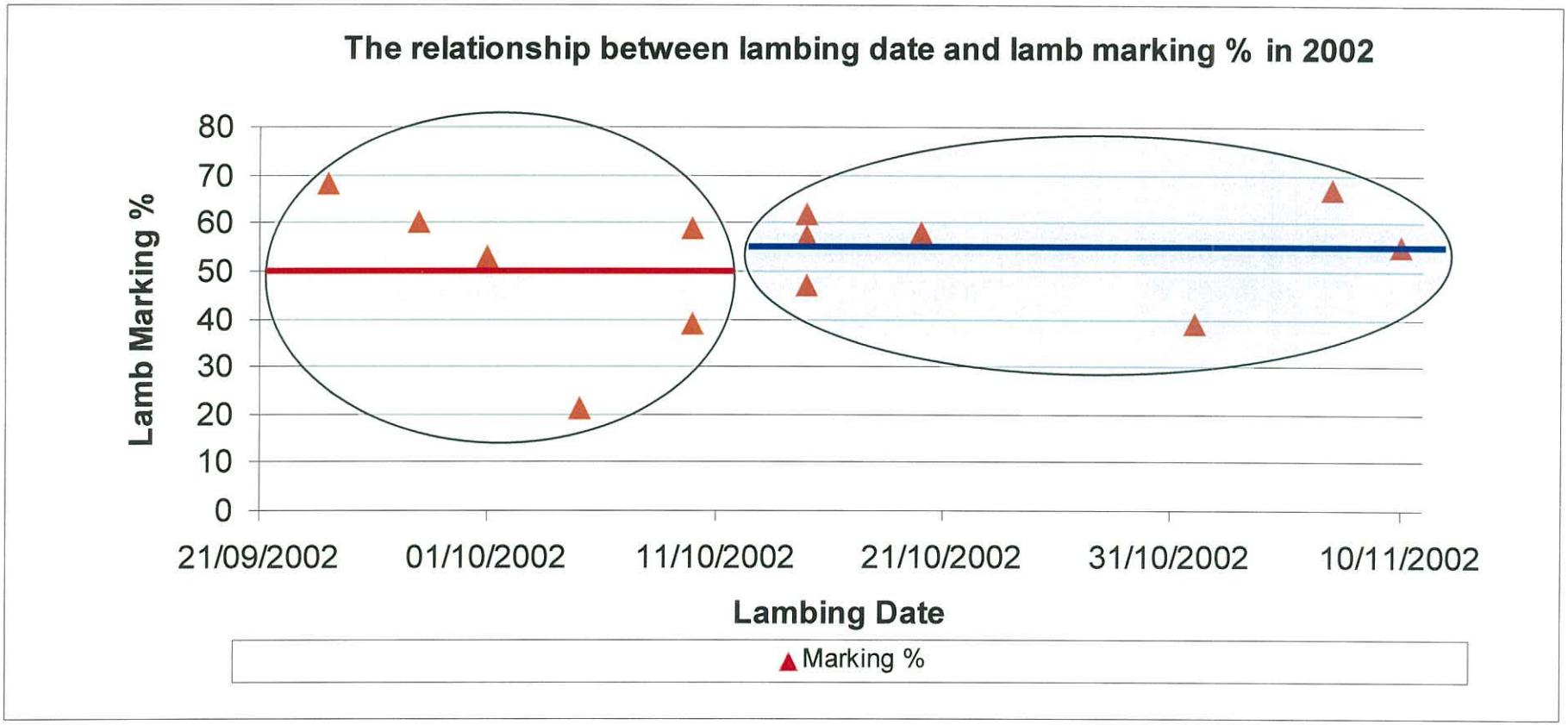


Figure 7 shows the lamb marking percentages for the same flocks discussed in 5. If we group these into an early and late lambing group we can see that on average the later lambed group had a 5% greater lamb marking percentage than the early lambed group. I believe this advantage would be greater in the majority of years.

The 2002 lambing was greatly influenced by poor summer pasture growth in the 2001/2002 summer, which was the driest on record. Consequently, little quality feed bulk would have been accumulated for the winter period.

7. THE EFFECT OF CHANGING LAMBING DATES FROM SEPTEMBER THROUGH TO DECEMBER.

September Lambing

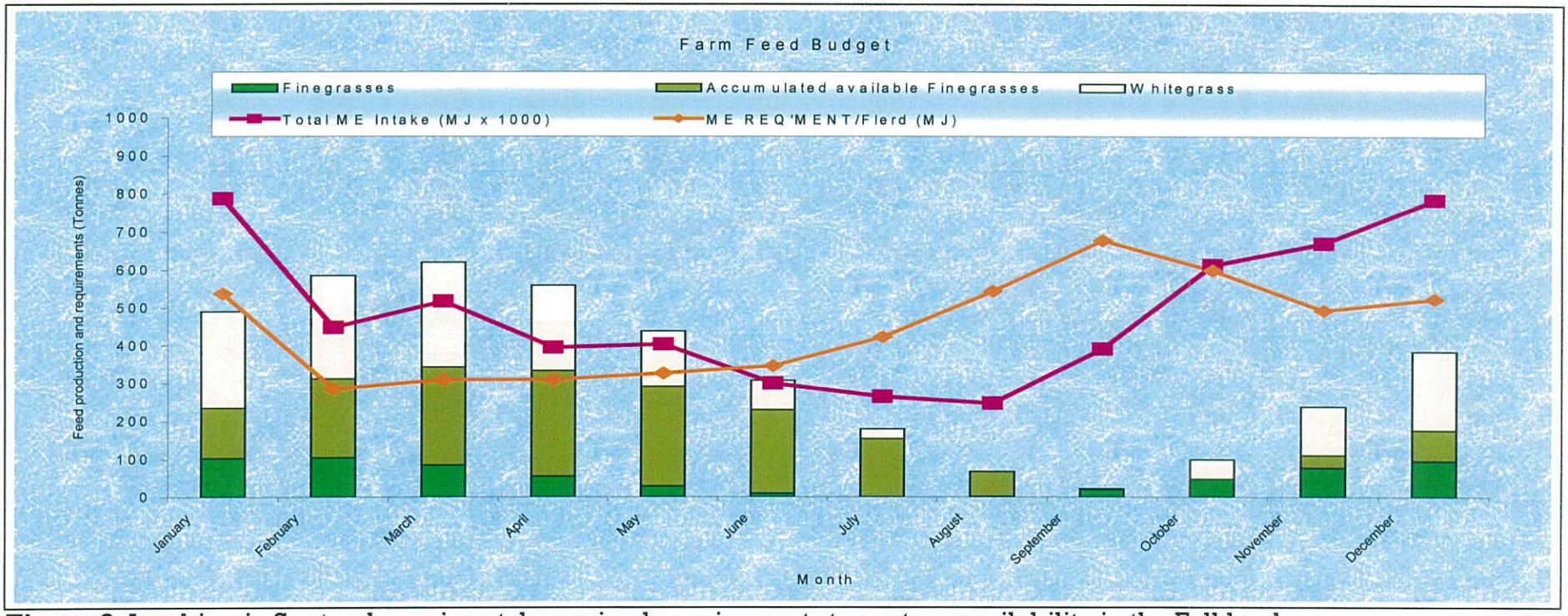


Figure 8: Lambing in September mismatches animal requirements to pasture availability in the Falklands.

The above Figure 8 demonstrates how lambing in September works against environmental forces on pasture production, and therefore against animal production. As in Figure 1, the columns represent the monthly growth of finegrass (bright green) and whitegrass (cream). It also shows the accumulation and depletion of finegrasses (brown-green) over the year. The orange line represents the relative energy levels required by ewes throughout the year if they are to maintain a 40 kg live-weight. The pink line represents the energy level that is selected from the pasture that is available in a particular month. Therefore, whenever the pink line (selected energy) is above the orange line (required energy) the ewe is gaining weight above 40 kg. The ewe is losing weight below 40 kg when the pink line (selected energy) is below the orange line (required energy). The

difference, or gap, between the two lines is most significant and represents the extent of weight loss. I can predict the ewe liveweight changes by adjusting the liveweight so that the two lines match each other exactly. In this example the ewe has gone from a peak of 47 kg in April, to 35.5 kg when lambing in September. This is a massive weight loss of 11.5 kg in 5 months.

October Lambing

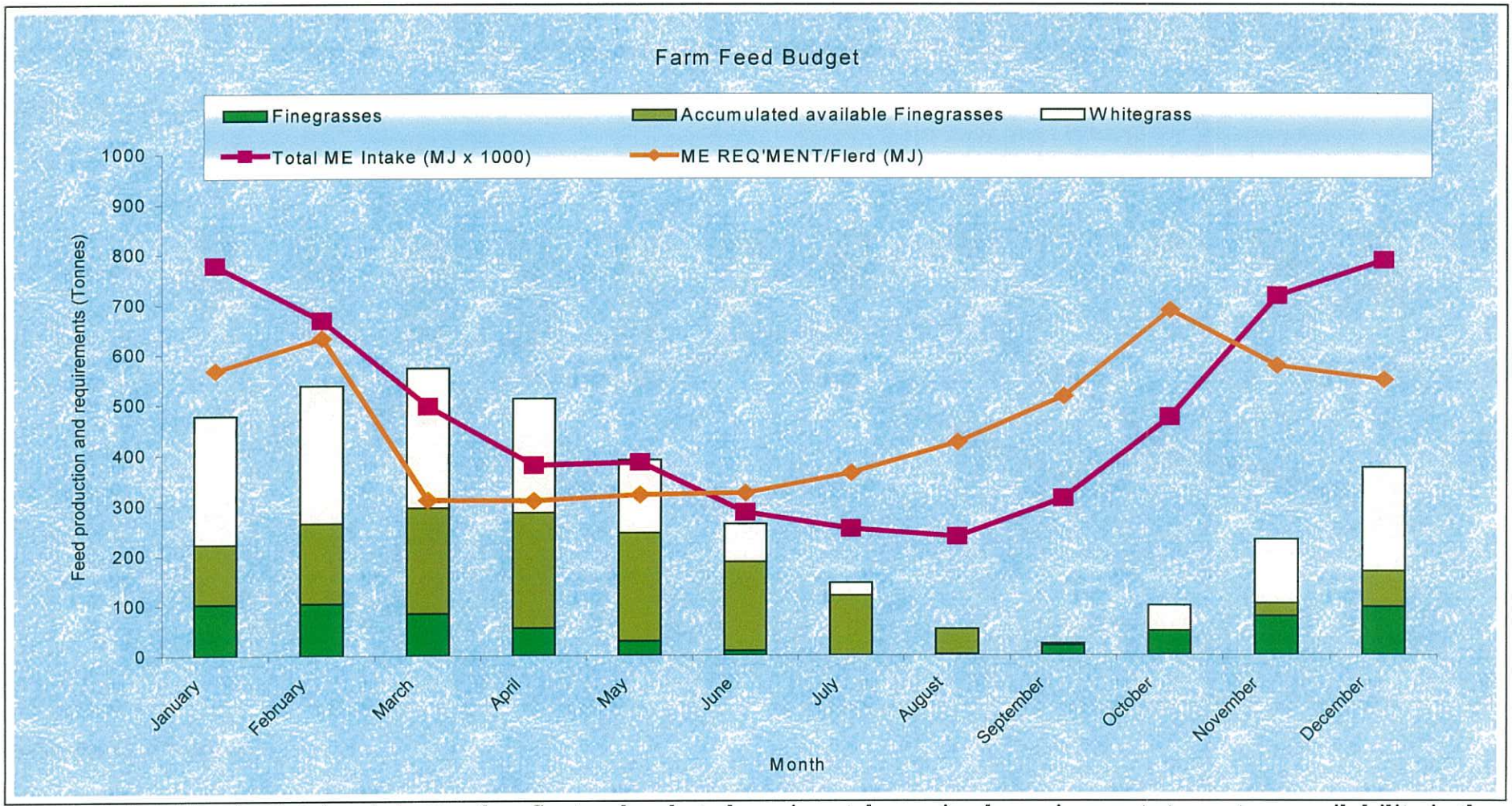
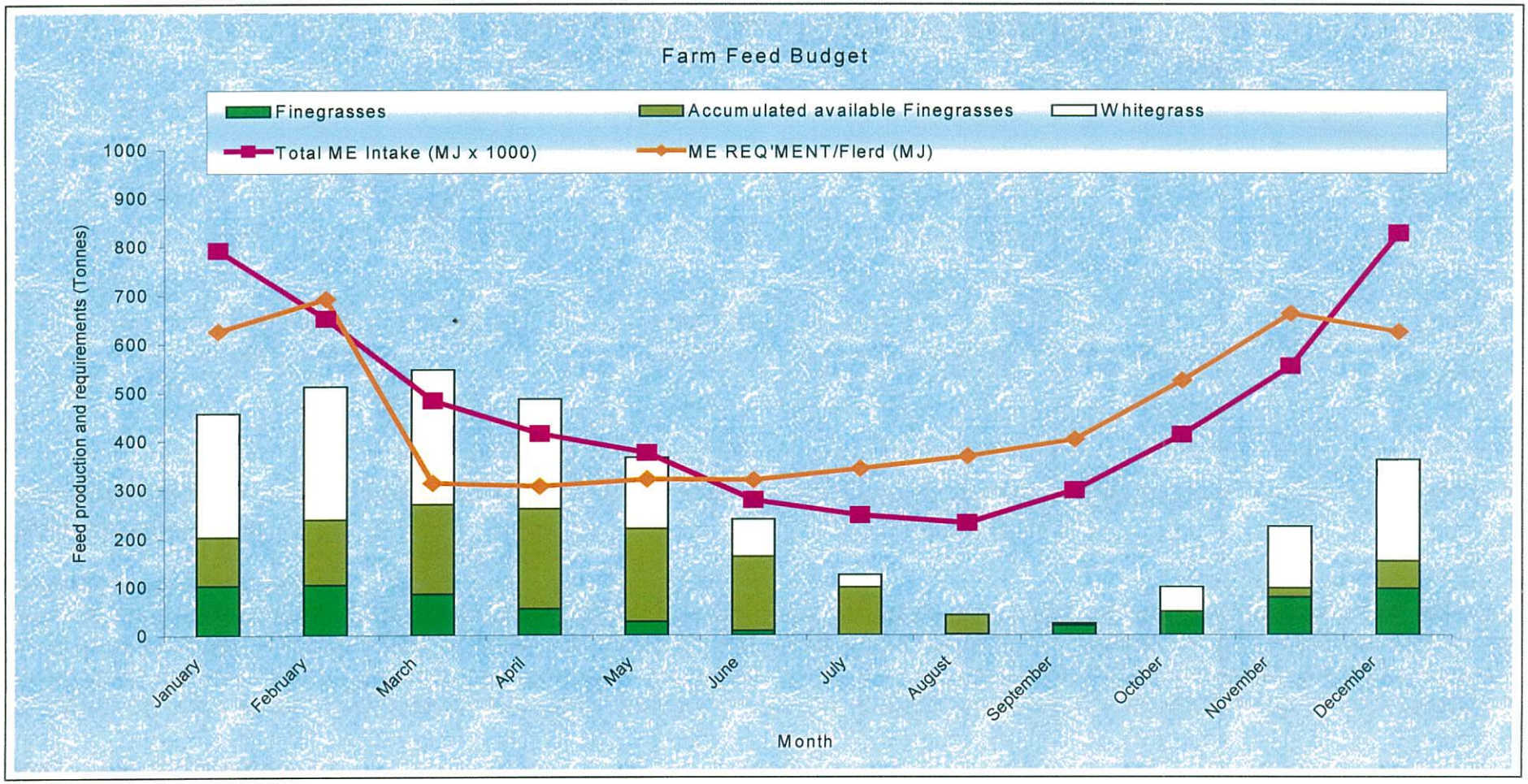


Figure 9: Lambing in October is better than September but also mismatches animal requirements to pasture availability in the Falklands.

Figure 9 show exactly the same conditions as in Figure 8, only that lambing date has been changed from September to October. We see that the gap between the two lines in each month has diminished slightly. By matching the requirement and selected energy levels I have calculated that the October lambing ewe would have a peak liveweight of 46 kg in April and this would drop to 35.25 kg when lambing in October. This is a slightly less rapid weight loss (than when September lambing) of 10.75 kg in 6 months.

November Lambing

Figure 10: Lambing in November is better than October but also slightly mismatches animal requirements to pasture

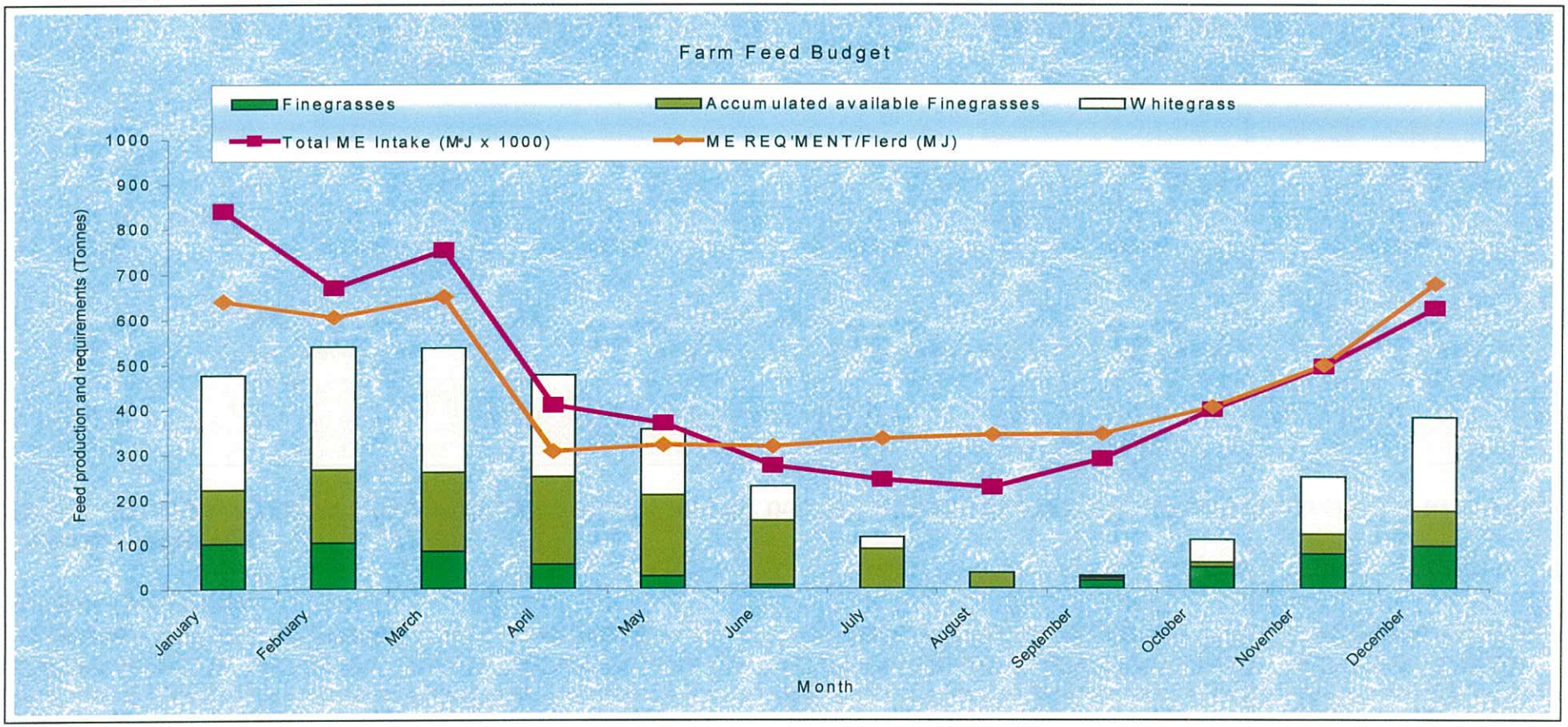


availability in the Falklands.

In Figure 10, once again no variables have been changed except for lambing date, which has been changed from October to November. We can see that the difference between the required energy and selected energy of a ewe attempting to maintain a 40 kg liveweight is not as large as in the previous two scenarios. When lambing in October on this camp we may expect ewes to have a peak live-weight of 45.5 kg in April and a minimum liveweight of 37 kg when lambing in November, an 8.5 kg weight loss in 7 months.

December Lambing

Figure 11: Lambing in December matches animal requirements to pasture availability in the Falklands, but the price paid is



probably a markedly reduced ewe conception rate.

Again in Figure 11, only the lambing date has been changed to December. Immediately we can see how the required energy and selected energy curves almost sit on each other for most of the year. Indeed, the ewes reach a peak liveweight of 46 kg in April, then lose only 6.5 kg in the 7 months to November, then actually gain 0.5 kg of liveweight before lambing in December.

December lambing is ideal in terms of matching the energy requirements of a ewe to energy availability. However, as discussed in Section 3, lambing in December may compromise the lambing % by mating outside of the peak fertility period. This needs further investigation.

Lambing later results in less weight loss, and less rapid weight loss, both of which are important in embryo retention and lamb production.

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STOP PRESS

Darwin Shipping Ltd is now taking bookings for the next Northbound Vessel which is currently loading in the UK with an ETA in the Falklands of the first week in April. To ensure space is allocated for your wool, please could all farmers wishing to send wool North contact Eva Clarke as soon as possible with bale numbers. Tele 27629, fax 27626 or email darwin@horizon.co.fk

EDITORIAL

Hi All,

It's my first Wool Press editorial and for once I'm actually lost for words. This does make a change. Usually I'll gabble about everything but nothing in particular! It has been a very busy month in the Department for everyone, especially with the Ram Sale and Open Day. There should be an article on that next month along with some pictures.

You'll see we have an article called 'The Voice of the People'. Once you've read it, if you want to voice your opinion on the subject of the sheep chill factor, don't hesitate to give me a call.

If any of you have any tasty recipes you'd like to share then please send them to me.

If anyone would like to make a contribution to the Wool Press, then please e-mail phalliday@doa.gov.fk

Please take a few minutes to fill in the questionnaire that is enclosed with this edition. We need YOUR help to make this publication better for YOU. Now I'm done nagging, I'll tell you a bit about the holiday in Chile.

The first week was spent in Puerto Varas and the second in Santiago. Sue and I went water-rafting, horse riding through the forests, shopping and exploring. We had some very interesting experiences from getting stopped at the metal detectors and being commanded to empty our pockets, to walking innocently into a men's bar! It was only after we had taken off from Mount Pleasant that Sue cared to inform me that things generally happened to her on holiday and she seemed to be a bit of a bad luck charm! But all said and done, we had a good time.

You'll notice the crossword is back this month so why not go and make yourself a cuppa, put you feet up and read your way to the back page. Until next month, Adios!

Priscilla

CAMP PASTURE QUALITY AFFECTS CARRYING CAPACITY BUT NOT ANIMAL PRODUCTION

By Niilo Gobius

As I described in my article on the characteristics of ewes that affect marking % I have been analysing the data I have collected from 9 farms around the Falklands for the last 2 or so years. In this article I report on the effect of the camp pasture quality (as indicated by the overall percentage of finegrasses in a camp) and it's stocking rate, lamb growth rates and lamb marking %.

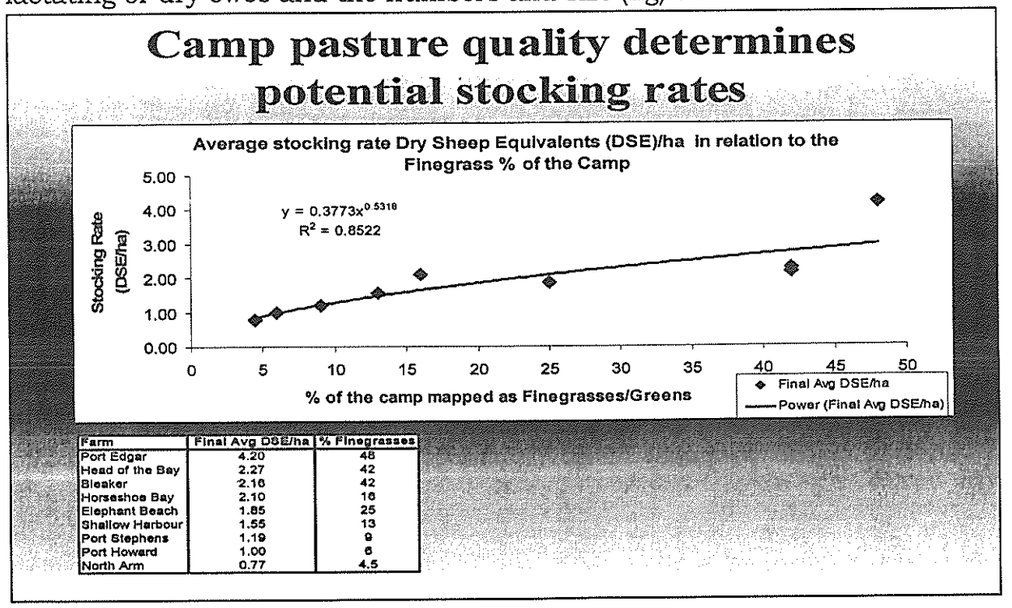
Satellite imagery was used to map the areas of greens, lax whitegrass, bog whitegrass, interspersed whitegrass, diddledee, bare ground, rocks, water etc. in a camp. The overall percentage of finegrasses in a camp was then calculated as:

$$\text{Finegrass \%} = \frac{\text{Area of greens (ha)} + (0.5 \times \text{the area of bog whitegrass (ha)}) + (0.5 \times \text{the area of interspersed whitegrass (ha)})}{\text{Total area of the camp (ha)}} \times 100$$

The strength of a relationship between two factors e.g. stocking rate and finegrass %, is best described by their correlation coefficient (R^2). If the R^2 =1.0, we would expect that one factor has total influence on the other factor, if the R^2 =0.1, it would appear that there is very little relationship between the two factors.

1. Effect of camp pasture quality on potential stocking rates

Figure 1 shows the stocking rates/hectare in dry sheep equivalents (DSE = one 45 kg wether) plotted against the % finegrasses for 9 particular ewe camps across the Falklands. The value of DSE is used to account for differences between camps in the size of ewes (kg), numbers of pregnant, lactating or dry ewes and the numbers and size (kg) of lambs and rams.



Farm	Final Avg DSE/ha	% Finegrasses
Port Edgar	4.20	48
Head of the Bay	2.27	42
Bleaker	2.16	42
Horseshoe Bay	2.10	16
Elephant Beach	1.85	25
Shallow Harbour	1.55	13
Port Stephens	1.19	9
Port Howard	1.00	6
North Arm	0.77	4.5

Figure 1: Finegrass % in a camp has a very strong influence on potential stocking rates.

As can be seen, a strong relationship exists between the quantity of quality pasture and the carrying capacity, or stocking rate, of a particular camp (R^2 =0.85). I chose to work with these camps originally because they appeared to be vastly different in their vegetation base. The satellite mapping has confirmed this. The stocking rates have been calculated from the numbers of animals each farmer has stocked the camp over the past 2 years – no special changes have been made on each camp.

This relationship shows that the vegetation base of the camp determines to a great extent the potential carrying capacity of a set stocked camp. Management then determines how close or far away from the potential stocking rate a camp or farm may be. For instance, how far the stocking rate of a camp sits above (or below) the line may depend on how much more (or less) intensively the camp is managed e.g. rotationally grazed, fertilised etc.

2. Effect of camp pasture quality on lamb growth rates and marking %

For the same camps, and for the years 2002 and 2003, I have plotted the lamb growth rates (Figure 2) and marking % (Figure 3) against the % finegrasses. Lamb growth rates were calculated by assuming that all lambs in a flock are born on the same date and weigh 3.5 kg at birth. Lamb marking % is calculated by dividing the number of lambs marked by the number of ewes put to the ram.

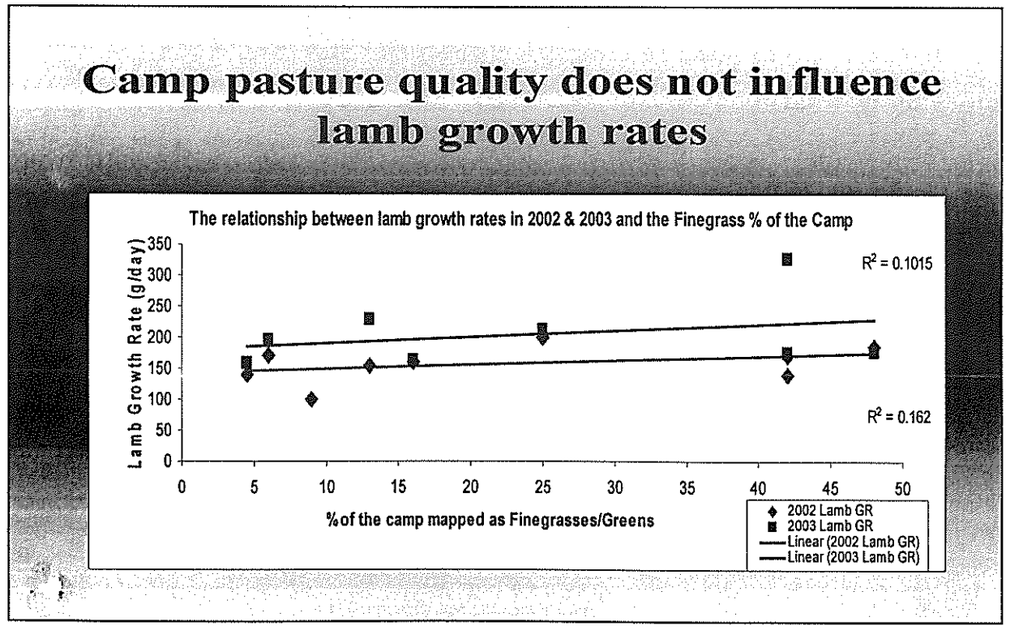


Figure 2: Finegrass % in a camp has little influence on lamb growth rates.

Figure 2 shows that there is little relationship between the percentage of finegrasses in a camp and the growth rate of lambs (R^2 = 0.16 in 2002; R^2 = 0.10 in 2003). This is because farmers generally stock their camps at a rate that optimises individual animal production as well as flock or herd size. The difference in lamb growth rates between 2002 and 2003 reflects the difference in seasons i.e. pasture growth in the 2003 summer was far greater than in 2002.

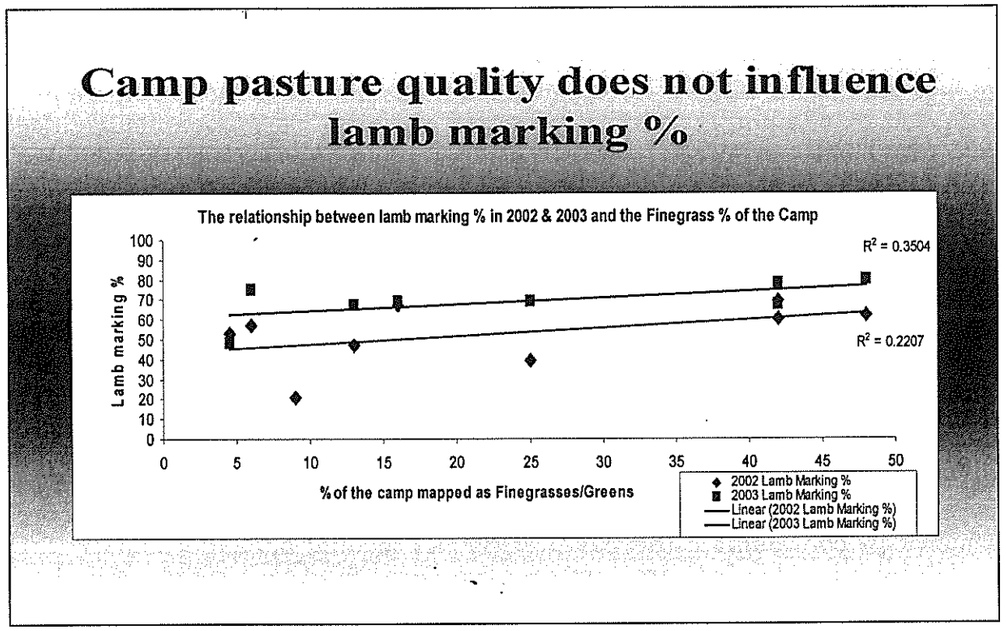


Figure 3: Finegrass % in a camp has little influence on lamb marking %.

As with lamb growth rates, Figure 3 shows that the finegrass % in a camp doesn't greatly affect the lamb-marking %. The relationship is a little bit stronger than for lamb growth rate, but the relationships would still be described as weak (R^2 = 0.22 in 2002; R^2 = 0.35 in 2003). Again the difference between 2002 and 2003 would appear to be seasonal.

In summary, camp quality will affect the total number of animals that can be carried in a camp. However, the weak relationship between lamb growth and marking % and camp quality means that the type of camp can't be used as an excuse for poor reproductive performance. The management of other factors such as lambing date, weight of ewes at joining and before lambing, weight loss during pregnancy and body condition score at lambing can have a far greater influence on reproductive performance.

Sam & Kim on the Web

Sam & Kim are on the web! If you want to check it out, go to:
http://www.abc.net.au/westqld/stories/s1045783.htm

NEWS FROM THE ABATTOIR CONCERNING TAPEWORMS

By Stephen Pointing

The abattoir hasn't been functioning in export-mode for very long this season but already some interesting data is coming through on some animal disease issues and I want to consider the problem we have with tapeworms in the Falklands. I originally wrote this article for the March Wool Press but there wasn't room to print it. In that article I wrote the following: *"You'll be pleased to hear that of the 4000 or so sheep killed this season that none of them have been found with any hydatid cysts. So the regular 6 weekly worming of dogs and the control over feeding offal to dogs seems to be paying dividends."* Well that was almost a month ago and as I'm writing this in mid March the abattoir has now killed in excess of 8000 and we've found 6 hydatid cysts originating from 2 different farms. So hydatids are still with us more than 25 years after the beginning of the regular dog worming campaign and safe disposal of offal. As well as the occasional hydatid surprisingly the meat inspector and abattoir vet are still seeing quite large numbers of carcasses with bladder cysts and other very small cysts in some muscles belonging to a tapeworm called Cysticercus ovis.

The adult tapeworm of a hydatid cyst is called Echinococcus granulosus. By worming dogs every 42 days you are preventing the adult tapeworm from reaching maturity in the dog's intestines and so it is unable to pass out eggs which can contaminate the pasture. By not feeding offal, particularly liver and lungs, to dogs you are breaking the parasite cycle between the sheep and the dog. This two pronged approach to trying to eradicate this tapeworm from the Falkland Islands appears to be working as the incidence today is much less (current incidence c 0.075%) than it was in the 1950's (incidence 50%+) or in the late 1970's (incidence 5%+) when the current regulations came into force. What I am surprised about, however, is that the incidence of bladder cysts doesn't seem to be declining at the same time. Bladder cysts (or Cysticercus tenuicollis) tend to occur in a much wider range of body organs than do hydatids. They are often found suspended from the liver, diaphragm, lining of the peritoneum and in the thoracic cavity. When eaten by a dog they go on to develop into a very large tapeworm in the dog's intestines. This tapeworm is called Taenia hydatigena. According to literature that I have read the adult tapeworm of this species doesn't reach maturity until 51 days after being ingested – so why isn't the 42 day pilling of dogs not ridding us of this tapeworm as well as the hydatid tapeworm? If we had foxes or wild dogs scavenging in the camp then they could act as a wildlife vector of the tapeworm but apart from the Patagonian foxes on a couple of the offshore islands in the West there are no natural wildlife vectors in the Falkland Islands. It may be that the drugs used for worming dogs are not 100% effective against T.hydatigena or that some folk are still not dosing their dogs at the correct interval or giving an adequate dose. Information on Taenia ovis is harder to come by but it also shares its life cycle between the dog and the sheep with the cysts in the sheep being very

small and found most commonly in the muscles of the heart and diaphragm. You probably wouldn't notice them unless you were actually looking out for them.

Before you all become very alarmed at the presence of bladder cysts and cysts of C.ovis in sheep carcasses I should point out that they have no public health significance at all. Unlike hydatid disease humans cannot catch them. However, they are unsightly and they do lead to a waste of meat due to trimming. If we could get rid of them as well as hydatids (without any extra cost or effort) then it would be a useful thing to do.

The next dog dosing day is on Wednesday 28th April 2004. My plea to the farming community is that every farm dog is wormed on that day with the correct dose of wormer. Check your dog's weight before the next dosing day and make sure you are giving it the correct number of pills. Pills are available free of charge from the Veterinary section of the DoA (tel. 27366). You should also review whether your killing facilities are adequately dog – proofed and if your offal disposal system is functioning as desired. I know it would be more of a hassle when it comes to feeding dogs but I should point out that cooking meat or keeping it frozen for 28 days would kill the cysts of all the above tapeworms before the meat was fed.

Dog dosing dates for the rest of 2004 are as follows:

28th April, 9th June, 21st July, 1st September, 13th October, 24th November, and 5th January 2005.

LIFE AFTER THE FALKLANDS

By Robin Thompson

Firstly greetings to all our friends and acquaintances in the Falklands. Priscilla has asked me to share with you what I have been doing since returning to Tasmania so this is an attempt to do that as well as give a small insight into our local red meat industry.

Upon my return to Tasmania I resumed working with the Tasmanian Department of Agriculture (now after a few amalgamations Primary Industries Water and Environment) as an industry development officer within the Extensive Agriculture Branch. A couple of months later the then manager resigned and I acted in that role until being permanently appointed about two years later. Extensive Agriculture Branch is responsible for industry development and extension activities for the wool, red meat, cereals and grains and pastures sectors of our agricultural industry. The Branch has 22 staff and a research station.

My role is staff and program management involving acquisition of resources and their use in ways that hopefully give the best return for the investment. The following is a summary of the projects that our group is currently working on:

- **8X5 Wool profit program.**

This consists of a number of projects that are collectively designed to help producers achieve at least an 8% return on the capital they have invested in their wool enterprises, within the next five years. One of the large projects is looking at how management practices can be changed so as to minimise the variation in staple strength along the staple length. Such variation has a large effect on processing performance and thus price paid by processors. At the recent wool sales here wool of the same fibre diameter (19.3 micron) but with a strength of 30 v 48 newtons attracted a price penalty of $1.12/kg greasy.

Another project in this area is developing ways to use electronic animal identification (radio frequency ear tags) incorporated with individual animal pre shearing fleece fibre diameter testing to objectively class the fleece at shearing so as more even and higher value lines are presented for sale. The electronic identifiers can also be used to automatically draft and select animals.

Three monitor farms have been established as part of this project. Their aim is to demonstrate best practice pasture and animal management practices in a whole farm context. Issues being tackled on these farms include pasture improvement, grazing management, internal parasite management, pasture nutrition and general whole farm planning.

- **Red Meat Targets Program**

This program focuses on prime lamb and beef producers with the aim of tackling research, development and extension issues that will improve their profitability. A fairly exhaustive industry analysis and planning process resulted in the program focusing on increasing the amount of red meat produced per area of pasture. Industry has set a target of achieving at least 1000kg of live weight gain per hectare per year. We have achieved almost 1500 kg /ha from research areas so the challenge now is to do it in the real commercial world. Some of the issues being examined include strategic use of fertiliser such as nitrogen, irrigation, strategic supplementary feeding and grazing management strategies. This program is also demonstrating beef production from bulls to produce high quality primal cuts and grinding beef.

- **Pasture species development and evaluation**

Our group has an ongoing effort in evaluating the performance of newly released pasture and forage cultivars as well as developing new cultivars using material from a collection largely established through the efforts of Bob Reid. New cocksfoot and clover cultivars are in the final stages of evaluation and licensing prior to their commercial release within the next couple of years.

- **Grain and cereals**

The grain and cereals project is comprised of an extension project known as TOPCROP, which helps farmers adopt and use the latest technologies. A large barley-breeding project is also under way in collaboration with a Chinese research institute. In conjunction with a private company we are

assessing the viability of growing sugar beet for ethanol production. The ethanol would largely be used as a renewable resource to be added to petrol.

On the home front our boys Nigel and Keran are almost out of the teenage years and weaned as they say. Nigel finished a building and carpentry apprenticeship last year and recently moved to Cairns in tropical far North Queensland. He will be working there as a builder but the real reason for moving is football. That is real football – Aussie Rules! He loves the game and has shown some talent so has been offered to play with a Cairns team this year. Keran completed a civil construction traineeship and now works for an engineering company in Scottsdale. He hopes however to complete a diesel fitter apprenticeship but his first love is farming.

We are still farming in a part time sense this year growing potatoes, onions, poppies and grass seed along with the animal enterprises of beef, and wool and prime lambs. Spring rains failed to happen this year so irrigation was full on from early November until a couple of weeks ago when we received about 150mm resulting in wide spread flooding. Glenys is well and working part time in the local Post Office. She is also kept bust helping our parents with whom age is starting to catch up.

The red meat industry here is currently buoyant driven by an almost Australia wide drought which reduced stock numbers and by BSE in America and Japan. The Tasmanian image of clean, green and disease free has certainly been embraced by the Japanese hence their demands for our produce has significantly increased. This has created a few challenges for producers including having systems in place whereby animals can be traced to property of birth and other origins pre slaughter and being able to account for any treatments applied to the animals or the feed they consumed.

The Tasmanian wool industry is now almost entirely based on Merino with price until recently being mainly driven by fibre diameter. This seems to have changed with greater emphasis now on tensile strength of the fibre, which drives spinning performance. The high value of the Australian dollar relative to the US is having a negative effect on wool price. Prime lamb prices are however good ($60 – $100) so many wool ewes have been mated to terminal prime lamb sires.

I hope you find this interesting and we look forward to offering Tasmanian hospitality to anyone wishing to venture westwards to our little island.
Cheers to all and take care.

THE ROYAL SHOW

Charlene Rowland has been given some free tickets, stickers and leaflets for the Royal Show, which takes place on 4th to 7th July 2004. If you're going to be in the UK around this time and you're interested in going, give Charlene a call on 27211.

THE POTATO CYST NEMATODE (EELWORM)

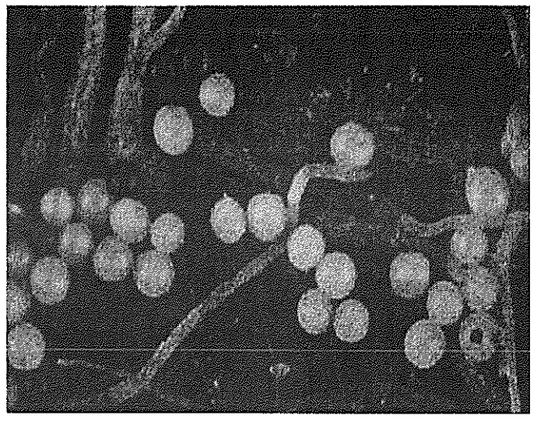
By Gordon Lennie

The potato virus caused by the eelworm nematode is a common problem seen in many gardens around Stanley.

These pests are parasitic worms that feed on potato roots causing yield losses or even total crop failure. They are able to survive in the soil for up to 20 years even with the absence of potatoes from the garden.

When the same garden plots are continually used to grow potatoes each year the risk of introducing eelworm to the soil is much greater. The first signs of eelworm in potatoes is often premature death of the foliage, particularly in patches, leaves can also show yellowing and wilting symptoms. The affected plants can also appear to be under water stress or suffering from a mineral deficiency. The root system on eelworm affected plants are often shortened and excessively branched.

Plants will more often survive and yield is affected. The actual tuber quality is unaffected but the size of the tubers may be reduced as a result of poor plant nutrition and root damage caused by the eelworm nematode.



Spherical female potato cyst nematodes feeding on potato roots.

To confirm the presence of eelworm, plants are best checked in January /early February. Affected plants should be sampled by carefully exposing the roots and examining for small pinhead white/yellow or brown cysts on the roots. The use of a small magnifying glass or hand lens is advised for this job.

If in doubt the suspected plant + roots can be brought to the Agricultural Department's lab and examined under a dissecting microscope to check for the presence of eelworm.

There are two species of potato cyst nematode, the golden nematode (Globodera *rostochiensis*) and the pale cyst nematode (Globodera *pallida*). The only species identified in the Falklands is the pale cyst nematode and this probably originated from S. America.

Control of Eelworm in gardens

Potatoes should be grown on a 3 or 4 year rotation to reduce the build up of eelworm numbers in the soil.

Use certified seed to avoid introducing the eelworm nematode into the soil. Sante, Nadine and Rocket would be the preferred choice of cultivars as they are moderate to highly resistant to the pale cyst nematode.

Using a no-dig growing measure on the potato plots can reduce the effect of eelworm.

The use of an early maturing potato variety can often produce a reasonable crop before an eelworm attack can take effect.

The application of a granular nematicide such as Yaltox or Aldicarb can allow plants to grow properly, however may not reduce eelworm numbers significantly in the soil. The nematicide needs to be incorporated well into the soil before planting. An annual application may be required to keep the eelworm problem in check.

PREGNANCY TESTING OF CATTLE

By Sue Harvey

Why?

As *a management tool.* To find out which cows are not in calf so they can either be culled or only fed a maintenance diet, saving the good feed for the pregnant cows. My clients in New Zealand used to reckon they saved money despite the cost of the testing 250 cows, if I found one cow that they didn't expect to be empty. They were then able to save the cost of her winter feed. Occasionally empty cows can be found to have something wrong with their reproductive tract and those cows should obviously not be kept. Likewise there is little point in keeping cows that have been empty for a number of years.

When?

It is best done at least 6 weeks and preferably *8 weeks after the bull has been removed* from the cows. However if you are prepared to accept a degree of error in any cattle that might be less than 6 weeks in calf it can be done when the *majority* of the cows are expected to be more than 8 weeks in calf. As a personal plea I would like to do it while the weather is still reasonably warm. It might be warm inside the cow but it is pretty cold waiting for the next one to be brought up the race!

How?

Organise with Sarah for the vet to visit and have the cows restrained either through a *race/crush system* or if there are *a small number of quiet cows* in the milking shed. It is more important to have a low gate or rails behind them to stop them kicking/moving back than to have them in a head bale. Limiting their side ways movement will also help.

I hope to go over to West Falkland sometime in early/mid May to pregnancy test there. Please (West Falkland farmers) let Sarah know in April if you *might* be interested in having your cows checked.

If you would like to discuss any aspects of cattle pregnancy testing please phone Sue Harvey at the Vet Department.

SETTLING IN AND SARCASM

By Zoe Luxton

After three glorious weeks in the sunny Falkland Islands it was not pleasant to be deposited at Brize Norton at 7.15am on a wet, freezing cold, dark morning in mid-February. My mood further deteriorated while stuck in traffic on the A40 with the thought of another three and a half hours drive back to Suffolk. So it was with trepidation I arrived back at work, half cross because I wasn't at home with nothing more than an evening in the Victory planned, and half depressed because I was homesick and also a little worried that I had forgotten how to spey a cat during my rather long holiday. What was lovely though was seeing everyone back at work. I THINK I was missed. "Thank God you're back," said Nurse Claire "its been so...so...SENSIBLE without you!" not sure that is a compliment but anyway...

A few of my regulars (why does that always make me sound like a Lady of ill repute?!) seemed pleased I was back and I was positively beaming when one lady with an elderly Labrador said, "Do you always work at this branch dear? I would like to see you again?" Trying to look modest (smug on the inside) I explained that although I did work at the other branch sometimes the girls on reception would be able to tell her when I was there and make an appointment accordingly. "Oh good." she said, "It's just that I wear a hearing aid and you are SO nice and loud I can hear you really well". Not so smug now. At least she didn't actually complain about my veterinary skills!

Somehow, unfortunately, during my break my mind had managed to erase all memories of how unthinking/stupid/irritating the general public can be. The following is a quick questionnaire based on experiences of the last few weeks.

1) You are taking your lively young dog to the vets for a routine check and vaccination. When you enter the consulting room do you:

a) Explain it is just a routine check and vaccination time and hold the dog steady so the vet can check him over? Or...

b) Take the lead off as soon as you get in the room and stand well back so the vet has plenty of space to grovel on the floor after your over excitable dog while she is also firing questions at the back of your knees as that is where the dog is trying to hide.

2) The rabbit needs his nails trimming so you are off to the vets with him. Do you:

a) Pop him in a top opening carrier that is lined with newspaper so you can easily get him out and support him while the vet quickly trims his nails. Or...

b) Put him a box with one small door at one end with as much hay as you can possibly stuff in around him so the vet is sneezing as much as swearing at her inability to get the rabbit out of the farthest corner of the box.

3) The cat is off her food, she is getting on a bit and you are concerned enough to take her to the vet. Do you:

a) Explain that you are really quite worried as there is nothing specific like vomiting or diarrhoea but she is not eating quite as well as she usually does and is a bit quiet. Or...

b) Repeat at least 5 times "she's just not right" interrupting the vet each time she tries to ask a question with "and she's such a special little cat we'd hate to lose her".

If you haven't figured that the a)'s are the correct answer and the b)'s are the actual events then please take the hint before I next see you with an animal.

I will endeavour to tell an interesting medical vet story next time!

SCANNING – FAT RELATIONSHIP TO PREGNANCY IN CATTLE AND ASSESSING CORPUS LUTEUM ACTIVITY.

By Doug Martin

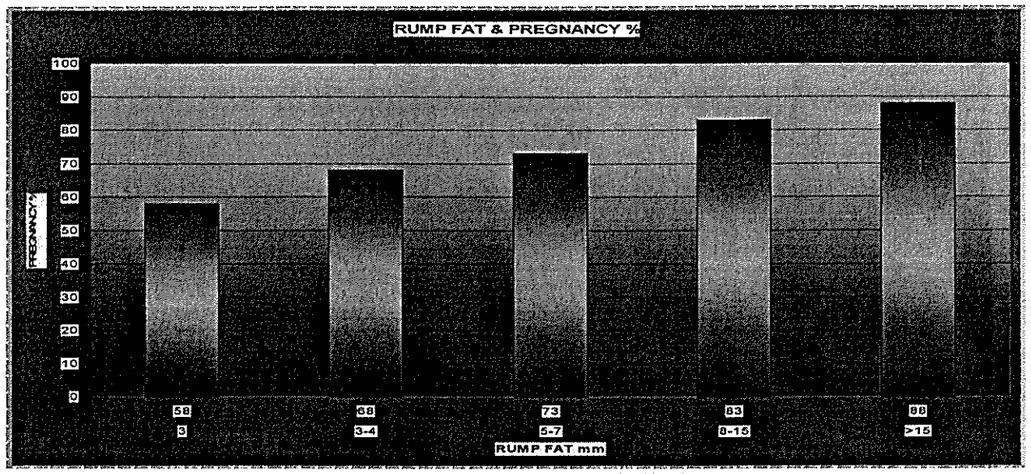
Preliminary results of scanned fat thickness at start of joining and subsequent pregnancy rate carried out by the Beef Co-operative Research Centre in Australia show a significant relationship between rump (*but not rib*) fat depth and pregnancy for all classes of breeding females (*lactating and non-lactating; different age groups corrected for weight*).

Every 1 mm increase in rump fat represented a 1.2% increase in pregnancy rate over a base of 65% *See Figure 1. below.*
Once heifers reach 200kg, scanning is also used to monitor ovarian function and study factors affecting puberty. They are scanned every 4-8 weeks until a corpus luteum (CL) is detected and they are deemed to have reached puberty. Scanning continues during joining to determine:

1) when heifers that were anoestrous into mating commence oestrous activity;
2) early pregnancies and possible extent of embryonic losses;
3) time of return to oestrous of lactating females.

The different genotypes of heifers are allocated equally across different research station grow-out environments. These range from hot dry climates with no ticks and low worm burdens to dry tropical
Environments with hot, humid summers, unimproved to partly improved spear-grass country with varying levels of tick, worm and buffalo fly burdens. Early results in heifers up to 2 years of age show strong breed and

environmental effects on age and weight at puberty. Average weights of different groups as 2 year old at start of joining, ranged from 250kg to 375kg, rump fat from 2mm to 5mm and puberty from 13% to 94%
(*as measured by CL scans*).



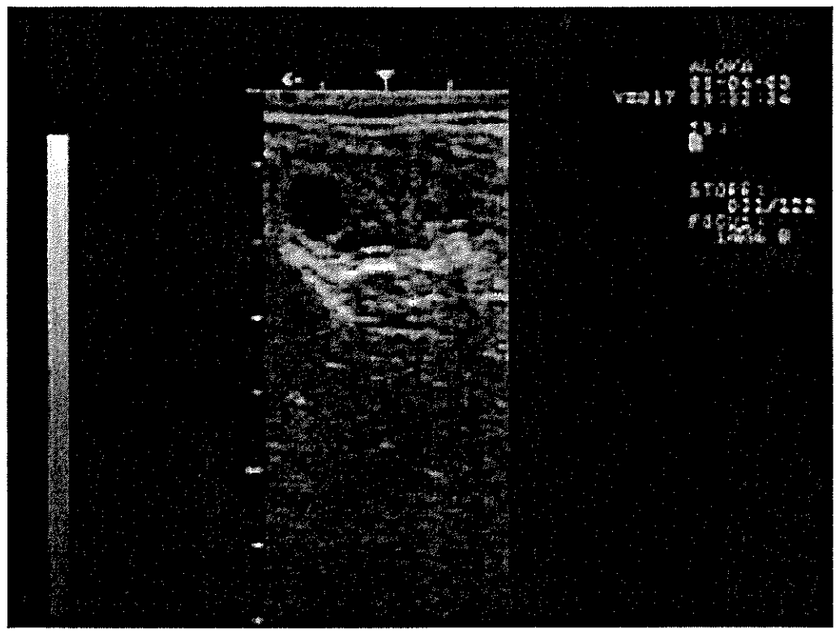


Image of a medium-sized follicle using ultrasound scanning

ANNUAL PASTURE PRODUCTION AROUND THE FALKLANDS

By Niilo Gobius

In attempting to model animal production I have been monitoring the growth of pasture in 8 camps around the Falklands. I measured rainfall over the same time period to establish the nature of the relationship between pasture growth and rainfall in the Falklands.

With a good understanding of the growth, quality and availability of pasture throughout the year we can predict the diet quality selected by sheep and cattle. This then allows us to formulate management plans to achieve specific animal production targets e.g. with prior knowledge of a feed shortage during August-September and in January, we may evaluate various options to achieve a target for January of 80% lamb marking and 25 kg lambs.

Figure 1 shows the growth of pasture (kg dry matter [DM]/ha) from 3 camps in the West Falkland, 4 camps in the East Falkland and Bleaker Is during the period from September 2002 to October 2003. The figures show that generally the production from the 'greens' (avg. of 3700 kg DM/ha) is more than double that from bog whitegrass (avg. of 1750 kg DM/ha) and 6 times more than that from lax whitegrass (avg. of 600 kg DM/ha). In a number of camps the 'greens' growth was close to triple that of bog whitegrass.

This is fortunate because the quality of the 'greens' is so much better than whitegrass, and there is much less of it around. In general it would appear that growth of greens in the north camp of both the East and West Falkland is greater than in other areas of the country, a fact probably assumed by many people.

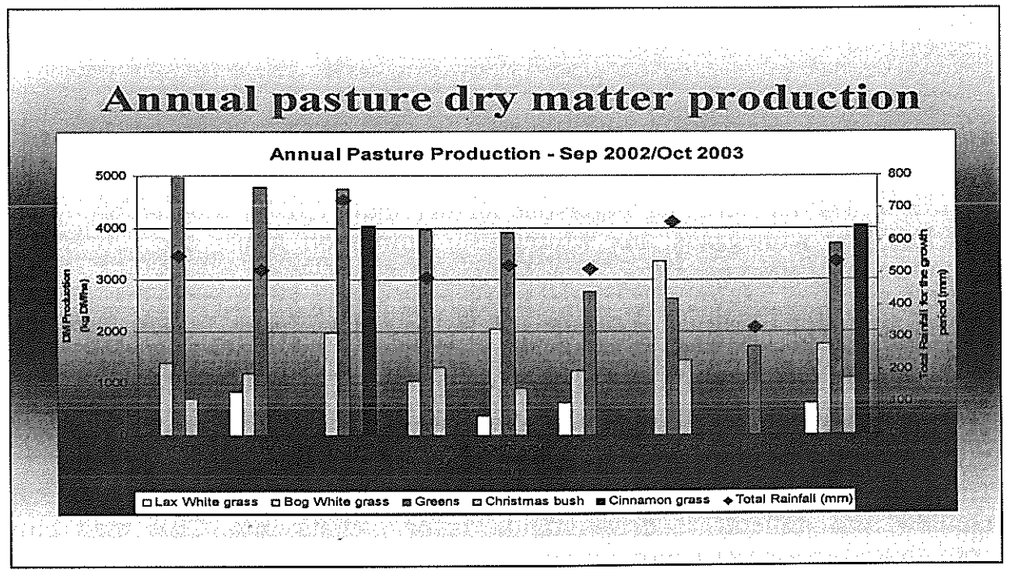


Figure 1: Dry matter (DM) production of the 'greens', bog whitegrass, lax whitegrass, cinnamon grass and Christmas bush in 2002/2003 in relation to total rainfall.

Figure 1 also shows the amount of rainfall received by each camp during the same growth period. As can be seen, total pasture growth does not relate that well to total rainfall. By dividing the total pasture production by the total rainfall and multiplying this figure by 100 we calculate the annual pasture DM production/100 mm rain or the pasture water-use-efficiency (WUE). Pasture WUE tells us how efficiently rainfall is used for pasture production. The efficiency will vary with soil type, how much water soaks in to the soil, how much runs off, warmth in the soil when the rain falls etc.

Figure 2 shows the pasture WUE for the same camps and pasture species as in Figure 1. On an annual basis, the 'greens' grow at an average of about 700 kg DM/ha/100mm rain, the bog whitegrass grows at 300 kg DM/ha/100mm rain and the lax whitegrass grows at 100 kg DM/ha/100mm rain. Again, fortunately for us the 'greens' use water most efficiently.

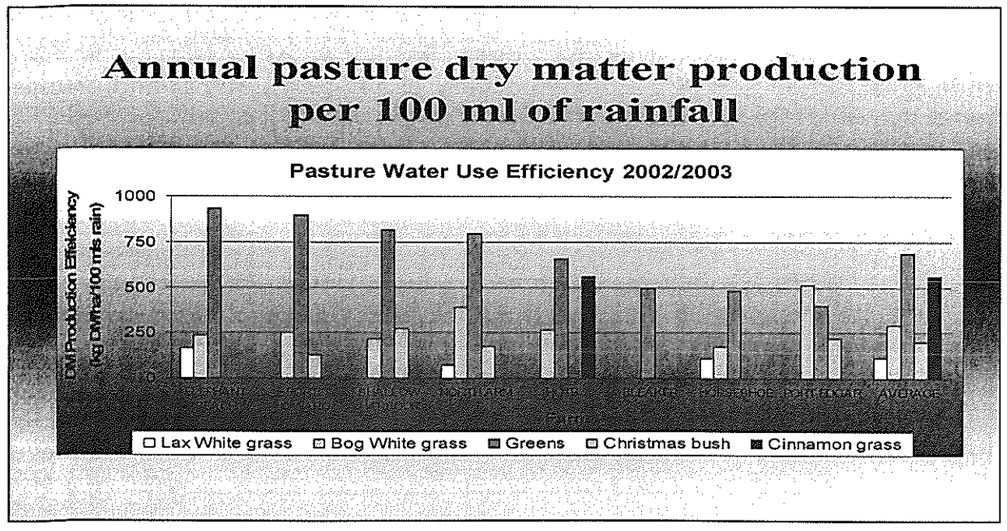


Figure 2: The efficiency of water-use for dry matter (DM) production by the 'greens', bog whitegrass, lax whitegrass, cinnamon grass and Christmas bush in 2002/2003.

In just this small sample of camps the WUE of the 'greens' ranges from 400 to 930 kg DM/ha/100mm rain. Likewise, the WUE of the bog whitegrass ranges from 170 to 510 kg DM/ha/100mm rain. The range in WUE is large and the job now is to ascertain and understand what is causing the variation in WUE between camps.

The soil on the 'greens' at Bleaker and Port Edgar seemed compacted, shallow and difficult to drive standards or pickets into. This may have contributed to greater runoff and a lower WUE. The camps with a lower WUE

contributed to greater runoff and a lower WUE. The camps with a lower WUE on the greens also tended to have a greater stocking rate, which may contribute to a lower WUE through soil compaction and increased water runoff.

FROM FALKLANDS TO LONGREACH

Source: Longreach Leader

Samantha Davies and Kimberley Steen have travelled halfway across the world to study at Longreach Pastoral College. Miss Davies 17, and Miss Steen 18, are both from the Falkland Islands, a British Territory in the Atlantic Ocean near Argentina.

Miss Davies learnt about Longreach Pastoral College from past student Neil Judd, who is a Senior Agricultural Advisor for the Falkland Islands Agricultural Department.

"I always had an interest in agriculture and used to go to friends' farms on holidays," Miss Davies said. "The Falkland Islands does not have an agricultural college"

Their journey from the islands to Longreach took 24 hours and began with a flight to Santiago in Chile. They then flew to Auckland, Sydney and Brisbane before touching down in Longreach.

Both are looking forward to studying in the college. Miss Davies will undertake a Certificate III in Sheep and Wool and intends to return to the Falkland Islands at Christmas to work with shearing gangs. "I would like to come back and do my wool classing certificate next year." She will keep her options open if a vacancy occurs in the Agriculture Department.

Miss Steen will study a Certificate III in General Agricultural Studies and also intends to return home at the end of the year to work with shearing gangs. "I intend to come back and get a diploma and wool classing certificate," Miss Steen said.

Both girls are adapting to a different climate and lifestyle. "The population of the islands is only 2,000 people," Miss Davies said. "We've been trying to acclimatise. At home during the summer we're lucky to get to 26 degrees and in the winter, it can be minus two during the day."

Both girls finished high school at Year 11 and joined the Agriculture department as trainees. Schooling in the Falkland Islands does not extend past Year 11 but students have the option to undertake Year 12 studies overseas if their grades are good enough.

Miss Davies and Miss Steen both worked in an artificial insemination and embryo programme and Miss Davies was also involved in veterinary work.

Both girls both worked as rouseabouts for the two main contract-shearing gangs on the Falklands.

THE VOICE OF THE PEOPLE

By Priscilla Halliday

During a recent visit to the MPA Met Office, the question was asked, "What do people think about the sheep chill factor reports"? In all truth, I was not able to accurately reply on behalf of farmers, but from a DoA perspective, the sheep chill reports were felt to be of real benefit in helping farmers manage poor weather risk straight after shearing.

To promote discussion on the "wind-chill" reports, various farmers were contacted, at random, to seek their views on the subject. With permission, their replies have been included in this edition of the Wool Press.

If anyone else has an opinion on the topic please feel free to give the DoA a call (Priscilla on 27355) and we will summarise your replies and forward to the Met Office. If you would prefer, you could always ring them yourself, I'm sure they'd be pleased to hear from you! Below are comments received to date:

"We listen to it because it's pretty handy. If it's too high we put the sheep back in the shed. I sometimes wonder about the consistency. It can be an awful day and the sheep chill factor can seem a bit low – but I guess it's the wind chill at MPA and not the West"

Keith Knight

"We always listen to it when we're shearing. One day last year we used it when they said it would be high and it poured down with rain that day!"

Violet Clarke

"It's useful to know. When you're in the middle of shearing you have to carry on regardless. But a few times when it's been at danger level we've put the clippy's back in the shed. But at least it gives you an idea of what you can expect for the poor old sheep"

Josie McKay

"We listen to it a lot. We do try and go by it and when it's at danger level we try not to shear. We always hear it and it comes on the radio at the right times, it seems to work quite well"

Jodie McGhie

"We listen to it and find it useful. It comes on the radio enough"

Hew Grierson

"We always listen to it. It's a good pointer for what will happen; otherwise you don't have a clue. If it's going to rain we always make sure we have shelter for the clippy's"

Gerald Dickson

"We always listen to the sheep chill factor. We think occasionally that it can be under estimated"

Pat & Dan Whitney

FERTILISER APPLICATION AT PLANTING – HOW TO AVOID CROP DAMAGE.

By Stuart Doyle

Take Home Message

- Too much Nitrogen or Potassium or Phosphate fertiliser applied in the furrow at planting time can cause germination failure, patchy germination or crop failure. Damage varies from fertiliser to fertiliser depending on nutrient content and rate applied.
- Crop sensitivity to fertiliser can vary from crop species to crop species and sometimes from variety to variety.
- Sowing equipment configuration has a large effect on maximum acceptable fertiliser rate particularly disc openers.
- Soil moisture at sowing time has an impact on maximum fertiliser rate – dry conditions require the rate to be lowered.
- If you are sowing a new crop, using a new fertiliser product or unfamiliar sowing equipment, seek advice on the effect it may have on the fertiliser rate that can be applied with the seed.
- Urea and other fertilisers may give economic yield response, however care needs to be taken with application, rate and timing.

Due to the increased forage cropping activity in the Falkland Islands over the last few years, Nitrogen, Potassium and Phosphate fertilisers are becoming more widely used. In addition new planting equipment now available has given the option of applying high rates of fertiliser at planting time into the seed furrow. For the sake of convenience and saving an in field operation, application of fertiliser with the seed is an attractive option. However this method needs to be approached with caution. Application timing of fertiliser is a crucial part of planing a cropping program, and due to potential damage it may be much more effective to apply nitrogen fertiliser either before planting (spread or drilled) or after the crop has been sown (spread).
There are many factors that will determine the correct decision – here are some that affect the risk of damage at planting time.

Soil Type
Soil texture influences the amount of fertiliser that can be applied with the seed at planting in two ways. Texture determines (a) the amount of water retained by the soil and (b) the cation exchange capacity **(CEC)** or the ability of the soil to adsorb the damaging ammonia ions **(NH_3)** released by nitrogen fertilisers.
Coarse textured soils have low water retention and low CEC, so the risk of fertiliser damage at planting is higher on these soils.

Soil Moisture at Planting

Soil moisture at planting is affected by tillage operations, soil type and climatic conditions. Soil water influences the amount of damage caused by

fertiliser applied with the seed in two ways. First, the free ammonia released by N fertiliser materials is attracted to moisture. If the moisture in the ground is limited the ammonia actually seeks out the water inside the seed embryo, penetrating the seed to cause damage.Second, fertiliser placed in direct contact with the seed can also have a salt effect (burning). In dry soils, water in the seed embryo can actually move outward to dehydrate the seed or the soil water can be absorbed by the fertiliser material, then adequate water is not available for the seed to germinate, or in some cases enough to germinate but not emerge. **Rates of fertiliser placed with the seed at planting must be reduced under dry soil conditions**.

Fertiliser Placement / Application Equipment

The seed opener refers to the method used to place the seed into the soil. The main categories of seed openers include single-disc, double-disc, hoe and sweep which progressively disturb more soil at the time of seeding. The more soil disturbance the higher the rate of fertiliser that can be safely applied with the seed because more soil mixing occurs and less fertiliser remains in direct contact with the seed. Therefore the disc drill type planters being used should apply less fertiliser in with the seed than the hoe type planter (airseeder) as the seed and fertiliser are placed in a much more concentrated band. Damage decreases as the distance from the seed is increased.

Fertiliser Type

Risk of damage depends on the nutrient make up and form of the fertiliser being applied. Dry fertilisers containing Ammonium Nitrogen (urea, 20:10:10) and Potassium (potash, 20:10:10) are the most damaging due to the salt index and free ammonia released. Have you noticed how fertiliser attracts moisture in the bin or bag – often setting it into bricks? Fertilisers are hygroscopic - meaning they attract water. This also occurs in the furrow, robbing your seed and freshly germinated seedling of moisture. Water moves out of the seed to the fertiliser pellet, actually drying out the seed and causing "burn" which lowers germination percentage.

Fertiliser form controls the amount of nitrogen that is released into the soil as **NH.** The **NH_3** causes severe injury when in contact with the seed. Urea fertiliser has a high potential to lower seed germination **if placed in the furrow at planting time**. Research conducted in Australia by Incitec Fertilisers found that for every kilogram of Nitrogen (as urea) placed in contact with the seed, establishment % of cereals (oats, barley, and triticale) decreased by 1 percent.

Crop species

The amount of germination damage caused by application of fertiliser with the seed at planting depends somewhat on the crop species. Some crop seeds are more sensitive to ammonia and salt injury as a result of their size, seed coat type, and water content.

In general, cereal crops (wheat, barley and oats) are able to tolerate higher rates of **N, P or K** fertiliser with the seed than Brassica crops, which are highly sensitive.

Cereals

Cereals are more tolerant to fertiliser contact than Brassica crops, however high rates of Nitrogen, or Potassium may still be risky if soil conditions are marginal and disc openers are used. The following rates should be used as a guide to maximum safe amounts applied with the seed at planting time assuming reasonable soil moisture;

20:1:10	70kg/ha using disc openers	80kg using hoe/tyne openers
Urea	50kg/ha using disc openers	50kg/ha using hoe/ tyne openers
Nitram	78kg/ha using disc openers	78kg/ha using hoe/ tyne openers

Brassica crops

If possible, do not place any fertiliser with the seed, as Brassica crops are very sensitive to fertiliser burn, e.g. sow the Swedes or Turnips through a small seeds box so the fertiliser and seed are not applied in direct contact with one another.

If this cannot be done and the fertiliser and seed are placed together i.e. applied through the same delivery hose, **do not apply more than 10 kg/ha of nitrogen, potassium or phosphorus at planting**. **The balance of the crop's requirement for these nutrients should be applied at some other time, eg. Pre-plant or broadcast after the crop has emerged.**

In total, nitrogen application rates in Brassica crops typically range from 30 - 100 kg/ha N (60 – 200 kg of urea) the bulk of this being applied either pre-plant or post plant with no risk. The rates following are the maximum to be placed with the seed in average conditions:

20:10:10	30kg/ha using disc openers	30kg using hoe/tyne openers
Urea	20kg/ha using disc openers	20kg/ha using hoe/ tyne openers
Nitram	30kg/ha using disc openers	30kg/ha using hoe/ tyne openers

Summary

Growers should consider all factors that influence germination damage when determining the amount of N fertiliser to apply with the seed at planting. Rates may need to be adjusted upward or downward based on the grower's specific conditions at planting related to soil water, fertiliser material, crop sensitivity and crop seedbed. I am certain that some readers will say that they have been able to use much higher rates and not see any effects. This may well be the case under ideal conditions – however BE VERY CAREFUL. If in doubt please contact the DOA to discuss your nutrition program – soil test first, plan then apply the correct fertiliser at the correct rate and timing. There are opportunities to increase production economically with Nitrogen and Phosphorus fertiliser if decisions are made after careful planning.

Figure 1 – Safe Placement at planting time (fert approx 4 cm from seed)

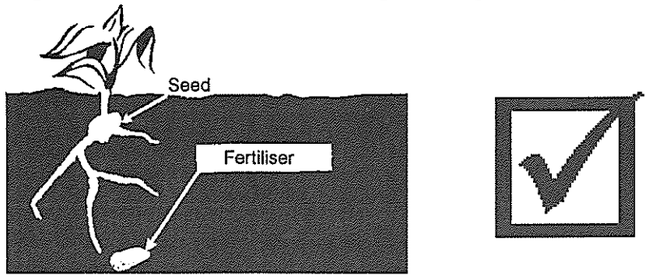
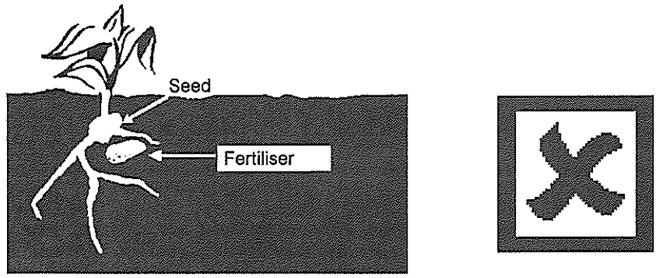


Figure 2 – Risky Placement at planting time (fert in contact with seed)



How to Stay Young

1) Remember: There is no way you can look as bad as that person on your passport.
2) Throw out non-essential numbers. This includes age, weight and height. Let the doctors worry about them. That's why you pay them.
3) Keep only cheerful friends. The grouches pull you down.
4) Keep learning. Learn more about the computer, crafts, gardening, whatever. Never let the brain idle. "An idle mind is the devil's workshop". And the devil's name is Alzheimer's.
5) Enjoy the simple things.
6) Laugh often, long and loud. Laugh until you gasp for breath.
7) The tears happen. Endure, grieve, and move on. The only person who is with us our entire life, is ourselves. Be ALIVE while you are alive.
8) Surround yourself with what you love, whether it's family, pets, keepsakes, music, plants, hobbies, whatever. Your home is your refuge.
9) Cherish your health: If it is good, preserve it. If it is unstable, improve it. If it is beyond what you can improve, get help.
10) Don't take guilt trips. Take a trip to the mall, to the next town, to a foreign country, but NOT to where the guilt is.
11) Tell the people you love that you love them, at every opportunity.
12) Don't sweat the petty things and don't pet the sweaty things.

Beef Casserole

Ingredients

1.5 lb stewing steak	mixed herbs	2 onions
3 oz smoked bacon	1 tblsp flour	2 carrots
2 tblsp oil	1 clove garlic	1 tblsp tomato puree
few strips orange peel	salt & pepper	2 tblsp parsley

Method

- Set oven to 180°C/gas mark 4
- Chop onions, bacon & carrots, crush garlic
- Mix flour, salt & pepper in bowl, add meat and mix
- Fry carrots, onions
- Cook meat until golden brown
- Add veg, tomato puree, garlic, herbs, parsley and orange peel
- Add stock and cook for 2 hours

Rich Chocolate & Raspberry Cream Cake

Ingredients

5 medium eggs	2 oz cocoa powder
5 oz caster sugar	14 fl oz double cream
4 oz self raising flour	2 oz icing sugar

7 oz raspberries (+ extra to decorate)

For the Topping:

7 oz double cream
7 oz plain chocolate broken into small pieces

Cake Method

- Preheat oven to 180°C/gas mark 4 and grease and baseline a deep 8 inch cake tin
- Whisk eggs and sugar in a bowl until light and fluffy. Sift in the flour and cocoa then fold in gently and pour into the tin
- Bake for 30 minutes until springy to the touch. Cool in the tin for 5 minutes then turn out to cool completely. Slice the cake horizontally into three, using a serrated knife.
- Whisk the cream and icing sugar until softly peaked and fold in the raspberries.

Topping Method

- Heat the cream until scalding point
- Add the chocolate and remove from the heat. Stir gently until smooth, pour into a bowl and allow to cool
- Sandwich the cake layers with raspberry cream and spread the topping over the top and sides of the cake. Leave to set in a cool place. Serve decorated with raspberries.

From Priscilla Halliday

The Wool Press

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All the regular features and more!

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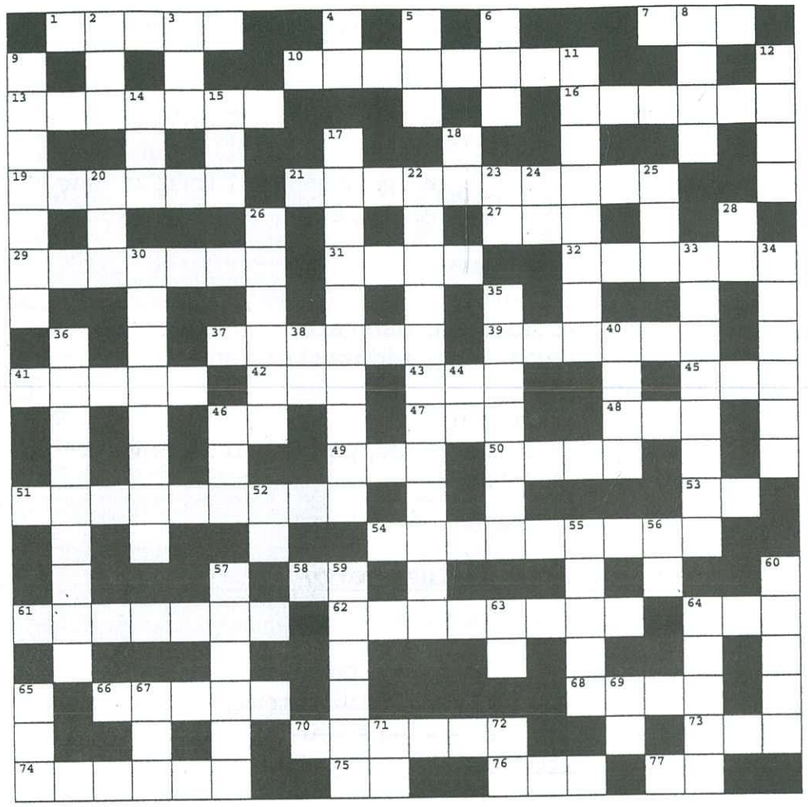
APRIL 2004



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1. DEPOSIT OF ICE PARTICLES
7. HOW OLD WE ARE
10. THEY CAME FROM SOUTH GEORGIA
13. MARCH 19TH
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19. ORANGE VEGETABLE
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36. MORNING RADIO SHOW
38. ABBREVIATION FOR REFERANCE
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56. LOS ANGELES
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EDITORIAL

Hi Everyone,
What cold weather we've been having! Winter seems to have arrived overnight. I wouldn't be surprised if it snows early this year. I just hope it's not going to be a bad winter.

As you will see, we've got a full Wool Press this month. We seem to have a bit of a theme – Cervical Artificial Insemination (CAI). There are three articles on this topic: an interview with Willie Vivanco, the participant's view and an article from Sue Harvey. There are also some Ram Sale pictures which you may find interesting – I especially like the one of Ali & Marlane! Thanks to Robin Goodwin for his contribution. If anyone else would like to contribute something please feel free.

I must say a huge thank you to everyone who has sent back the Wool Press Questionnaires. It has been a big help.

I am pleased to tell you that the Department of Agriculture is now on the web. The address is: www.fiagriculture.doa.gov.fk. On our website you can find our business plan, other various papers and reports, the weekly wool market report, dog dosing dates, photo gallery and staff pictures and write-ups.

Talking of websites, Sarah gave me the address of a brilliant one (www.madaboutcats.com). When I had a look I fell in love with it because as the title suggests, it's all about cats. Some of the things you can buy on there are brilliant. I ended up buying some toys for my two little angels. I can't wait to see their little faces when they get their tail tickler! I think Cuddles will go mad but as for Skip, she doesn't seem to like games that normal cats do. She's not fussed about chasing the shoelace etc, but soon as it comes to a bit of rough and tumble she's there! I've brought up a tomboy! I think if Cuddles was a human she would be a real girlie's girl because you have to play with her gently and she doesn't like getting her hair all ruffled up! Well as you will probably know I could talk about my two babies all day but I'd better stop there and let you read the rest of the Wool Press. So, until next time, have a good month and stay warm!

Priscilla

INTERVIEW WITH WILLIE VIVANCO ABOUT CAI AND HIS EXPERIENCE OF THE FALKLANDS

By Priscilla Halliday

You may know that in April a chap called Willie Vivanco came to the Falklands to train some farmer's as well as some DoA staff on Cervical Artificial Insemination (CAI). I managed to ask Willie a few questions about his profession and his experience in the Falklands:

1) How long have you been doing CAI training and how did you get into it?
I have lectured at the National Agricultural University of Lima Peru, Department of Animal Science from 1972 to 1985. I did a lot of research and development in AI in different farm animal species, especially in sheep and alpacas. For my thesis and PhD I did reproduction in sheep.

My main motivation to work with sheep and alpacas was to help the Indian communities of the high altiplano in the Andes where no other species can survive and be productive. From the 90's until present I developed other technologies like the Intrauterine AI in sheep which I was the first to perform in 1979. I've developed laparoscopic embryo flushing and transfer in sheep and Ovum Pick Up and vitro embryo production in cattle and sheep. I have been the Manager for the largest sheep ET company in New Zealand and Australia and I have managed the Reproductive Technologies Development Unit in AgResearch New Zealand developing sperm sexing, embryo sexing and vitro embryo production. From 2001 until the present day I manage the company SPTB in Australia dedicated to vitro embryo production.

2) What made you decide to come to the Falklands?
My first contact with the Falklands was when Doug Martin contacted us in New Zealand in 2000 to import vitro produced embryos of different cattle breeds. At the time when we were producing embryos for the Falklands we received a visit from Doug, then from Nyree who had some training of putting in cattle embryos. Our friendship and relationship with the Falklands grew stronger and we kept in touch to see how the transfers were going etc which is how I found out about your plans for cervical AI and I was invited to submit my CV and a proposal for doing the course. I was very excited about the idea and actually had to cancel a previous proposed trip due to my many obligations in Australia, but this time I made all the efforts to have the time available.

3) Did you find it an extra challenge carrying out training in the Falklands?
No. I have given training to many people for many many years, from peasants in Indian communities, farmers around the world (Finland, NZ, Australia, ex-Soviet Union, Bulgaria, Saudi Arabia, Cuba, China etc), undergraduate university students (from Ecuador and Peru) and graduate students (from NZ, Peru and Chile), so it was a pleasure to teach here.

4) What do you think of our sheep here in the Falklands and the way agriculture is heading?
As is the case in all harsh environments the main use of the land is for animal fibre production. However, as you know the wool prices have been going up and down, compromising the economical feasibility of the wool growing operations. The fine wool however, tends to have more stabilised pricing, so the efforts of the DoA in the Falklands to bring genetic material and/or introduce technologies (e.g. AI in sheep) that will make faster genetic progress in fine wool production are very well in focus. If the environment (e.g. nutritional level of pastures) can be improved, then in addition to improvements in fine wool production it will be advisable to improve frame and meat production ability of the sheep. This is also currently being done by the DoA by introducing breeds like the Dohne Merino and the South African Mutton Merino that have relatively fine wool but also a great conformation for meat production. I can see an enormous improvement in productivity when these genetics gets distributed through AI in the Falkland flocks.

4) What was the highlight of your trip?
There were so many pleasant moments that it is difficult to say. Perhaps seeing the calves on the ground from the cattle embryos that we sent from NZ and from Australia was a very rewarding moment. The last time I saw those calves they were in a petri dish and looking at them running in the Falkland paddocks made me feel good.

5) What was the worst part?
Definitely the moments at Mount Pleasant Airport on my way out. First I was asked to pay £20 airport tax and I offered to pay by credit card but they didn't accept credit cards nor cheques from Australia, they don't have a cash machine and I had spent almost all of my cash in town. The lady was adamant that I paid the tax or I do not embark on the flight. So I went through all of my pockets and bags etc, and penny by penny I got the £20! They finally let me into the waiting room that transformed into a freezing chamber. The plane was delayed and delayed due to the weather. Finally we took off about 7.45p.m. (I was in the airport from 3p.m.) and I reached my hotel in Santiago at 2.10a.m! Mount Pleasant is not too pleasant I tell you!

If you would like to contact Willie, you can e-mail him on willie.vivanco@bigpond.com
Or alternatively, you can take a look at the SPB website on: www.spbiotech.com.au

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DOG ARTIFICIAL INSEMINATION WEBSITE

www.come-bye.com

A METHOD OF STACKING LARGE ROUND BALES TO PROTECT LIVESTOCK FROM WIND AND BLOWING SNOW

E.R. Downing1, R.L.Jairell2, M.Moon1, D. Hixon3
By Doug Martin

Summary
Construction of windbreaks may be helpful in decreasing the effects of weather on livestock. Native grass hay was baled (large round bales) and stacked in a large "V" formation (90° angle) and pointed into the prevailing winds. Snow was effectively deflected around the ends of the stack, and in the area downwind of the stack, more than 0.75 acre (0.3 ha) was clear from any snow drifting. Cows (n=112) pastured in the meadow maintained body condition and gained weight. Hay quality was maintained and access to the hay bales was improved.

Introduction
Snow and blowing snow is a management concern in animal agriculture. Management of snow including snow harvesting for water storage (Jairell and Schmidt, 1990), drift accumulation (Jairell and Schmidt, 1995), prevention (Jairell and Schmidt, 1991), and finally animal protection (Jairell and Schmidt, 1988) are now well understood. Snow and wind, when combined, can have detrimental effects on range livestock including increased maintenance requirements leading to loss of body condition (Ames, 1985) and increased sickness and mortality (Martin et al., 1975). In our western production setting, natural protection is sometimes not available so producers build artificial windbreaks to decrease the effects of wind and blowing snow on livestock. Unfortunately, many efforts to build windbreaks fail because they lack the right shape or dimensions to do the job.

In their review, Jairell and Schmidt (1999) stated that a 90-degree angle shaped barrier, pointed into the oncoming wind decreased wind speed by 60% in the shelter zone (Fig 1). The barrier must have solid faces and the width "D" must not exceed 15xH (Jairell and Schmidt, 1988; Fig. 1). The shelter zone is defined as the area downwind of the barrier equal to five times the barrier height (Fig. 1). Shelters or windbreaks may be assembled out of many things including hay. Typically, stacking hay in a stackyard or other fenced area leads to severe drifting in and around the hay making access to the hay difficult. The following will present a technique of stacking large round bales (6 ft diameter x 5 ft length / 1.85m x 1.54m) to form a wind and snow barrier to aid in protecting cows from weather elements and to decrease problems with hay retrieval typically associated with drifted snow.

Methods
Native grass hay was harvested and baled in large round bales (6-ft diameter x 5-ft length) so bales weighed approximately 1500 lb (680kg). Bales were stacked two high with one bale placed one end and another bale placed

lengthways on top of the other bale (Fig. 2). Bales were stacked in a configuration (90-degree angle), 25 bales long by 2 bales high and 50 bales per wing. The height of the 2 bales together is approximately 12-ft. (3.6m). The wings are approximately 150ft(46m) long with distance "D" being approximately 175ft. (54m) The head or the angle was pointed into the prevailing winds (Fig.1). The hay wedge was built under the same parameters established by Jairell and Schmidt (1988) for wind and snow screening.
The stacks were then fenced following the perimeter of the hay structure and leaving approximately 5ft. (1.5m) of space between the stack and the fence line. Panels were set in place in the space at the ends of each wing and attached to the fence. The panels were used to access the hay in the stack from the ends for feeding when needed. It should be noted that these hay wedge stacks were not used until the cows were moved from that pasture and the stacks were not needed any further. However, if needed, hay could have been utilised starting at the ends of each wing and using equal numbers of bales from each end. Hay samples were taken from the hay wedge and a control stack at two points during a 6-month period, to monitor hay quality. The control stack was an adjacent stack that was stacked in 10 consecutive rows with 20 bales per row. One to 2 ft (0.3-0.6m) of space was left between the rows and bales were stacked as in Figure 2.

Cows (n=112, body condition score = 2.75, average age = 3.3) were turned into the 235 acre (92.5 ha) hay meadow containing the fenced hay wedge and a fenced control stack October 30th and they remained until January 30th of the following year. Mild weather in October allowed us to postpone feeding until November 18th. The cows were fed native grass hay once per day, free choice mineral supplement and watered in an open ditch that runs through the meadow. This meadow is defined as an open bench and has very little natural cover of any form.

During the 3-month period the cows were in the meadow, snow depth measurements and area of shelter zone were taken. In addition, observations were made of snow collection in and around the stack itself. Concern was raised early on about manure build up inside the shelter zone; however, no measurements were taken to quantify this occurrence.

Results and Application

During the three month period the shelter zone extended out beyond 5H (5H=60 ft, (18m) Fig. 3). Snow was blown clear in the shelter zone 150ft(46m) beyond the end of one wing and 120 ft (37m) beyond the other (Fig. 3). However, the shelter zone width decreased as distance increased from the stack and one side of the zone decreased the width severely indicating that the position of the wedge may have needed slight adjustment. The area within the shelter zone was approximately 37,000 ft2 (.85 acre/0.34ha.). Beyond the shelter zone, snow drifted and was deposited normally. In and around the bales and the stack itself, snow was not drifted which made bales much more accessible for feeding (Fig. 4). Snow drifted around the outside of the wedge "wings" or was blown clear of the shelter area (Fig. 5). The fence around the hay wedge did not seem to effect snow behavior around the stack. Drift depths ranged from 1 ft. to 3 ft on either wing. The shelter area provides a protected area in which to feed animals or use as a windbreak in an open pasture such as this one. Hay samples taken from the hay wedge did not change over the 6-month period indicating that no loss of nutrients had occurred. Cow body condition scores (BCS=2.75) did not change from the time they entered the pasture to the time they were moved. In addition, cows gained .23 lb (110gms) per day while in the pasture. However, it should be noted that these cows were young, growing, and pregnant.

Maintenance of body condition through the winter is a major factor in many production decisions. Any form of protection for livestock from wind and snow is beneficial, however, stacking hay in the form described above has proven to be very effective. In addition, hay is made more accessible and quality was not compromised. Cows using this protection maintained body condition score and gained weight. As this was the only real protection from the wind and blowing snow on this bench meadow, animals rested, ate and spent a tremendous amount of time in the shelter zone. Manure build up was indicated as a possible problem but did not prove to be of any concern. Dragging meadows in the spring was sufficient to clean up most manure build up.

References

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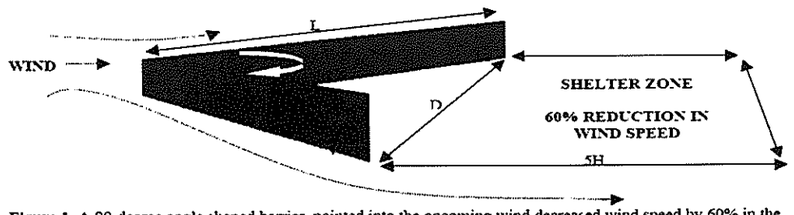


Figure 1. A 90-degree angle shaped barrier, pointed into the oncoming wind decreased wind speed by 60% in the shelter zone. The shelter zone is defined as the area downwind of the barrier equal to five times the barrier height (adapted from Jairell and Schmidt. 1999).

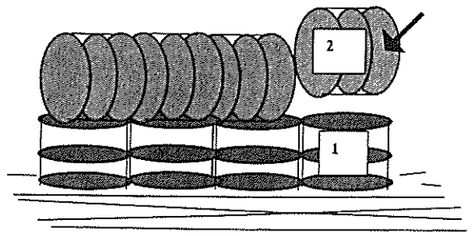


Figure 2. Illustration of hay stacking technique. 1.) Round bale on end. 2.) round bale stacked on top length wise.

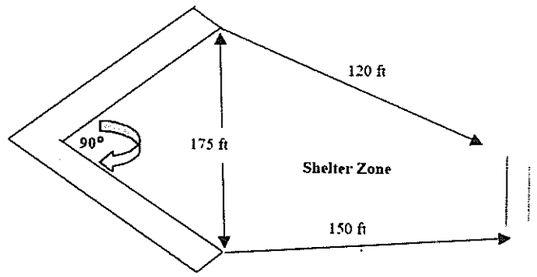


Figure 3. Illustration of the actual shelter zone that was observed during the three-month period. Shelter zone width decreased as distance increased from the stack. Snow distribution was unequal from side to side.

Figure 4. Picture showing drift accumulation around the edges of the wings. Note, however, the bales are easily accessible and clear from drifting snow.

Comments from a Falkland Island perspective:
Could this management practice be adopted in the Falkland Islands?
If used as shelter alone cost effectiveness would not be great due to the large areas of camps cattle and sheep are grazed in winter. Current cost of round bale hay is £10 - £12 using the only contractor available. A weight of 680kg per bale would appear difficult to achieve; however volume is more important then weight in this case. For the 110 head in the research described the cost therefore would be £1000-£1200. The cost would be apportioned over a number of years, as the hay does not deteriorate quickly, and as well as this the bales could be shifted several times over the lifetime of the hay. The cost of a FEL for ease of handling needs to be taken into account.

Current weaning rates of cattle in the Falkland Islands is 36%. Work to date has shown that where breeding cow BCS does not fall below 2.75 calf weaning rates are over 80%. In the case of the 110 breeders, should weaning rates double from the current 36% to 72% and with a weaning weight of 180kg at 6 months then the gross return on the extra calves at 68p per kg. Liveweight would be in excess of £4500.

Another management practice employed in the U.S. is to use a combination of round bale hay for shelter, as well as a row of round bale silage, which is fed out through the winter. Rough estimate for feeding silage would be as follows:

1 bale per day (275 kg dry matter) of GOOD QUALITY silage should supply 30% of requirement of 110 head young breeding cows. Fed over 100 days this equates to a cost of £1250-£1450 (£2.50 per bale wrapping cost). This includes cost of silage making only. Add to this the cost of the material in the bale, which on average will be 5p per kg dry matter or £50 per tonne dry matter (£13.75 per bale)

A further option is to use the technology of utilising ammoniated white grass silage described by Niilo Gobius in the research carried out by him at Goose Green in 2003-2004.

SHEER LUXURY OF £500,000 WOOL

Source: The Times Newspaper

Guards at the National Australia Bank in Brisbane take possession of what is said to be the finest wool ever produced – the bale is valued at around £500,000 (Roger Maynor writes).

The wool is 11.9 microns thick, which is about one-fifth the diameter of a human hair. (A micron is one thousandth of a millimetre). The wool has

been produced by Bim & Rick Goodrich, two New South Wales sheep farmers, who provide such luxurious facilities for their flock that their ranch at Warroo Station has been called the Wooldorf Astoria. The sheep live in climate-controlled sheds, are given only the best food and are played soothing music, but the exact details are a closely guarded secret. "We can't tell you, or every other bugger in Australia will copy what we're doing," Rick Goodrich said.

The brothers have produced 90kg (198lb) of the wool, which could fetch a higher price than gold when it is sold to leading fashion houses. A bale of 13 micron wool was sold to a Japanese company in 1997 for A$1.2 million (£490,000). Mr Goodrich said: "It's a great privilege for us to have produced such a beautiful bale of wool."

CAI COURSE IN THE FALKLANDS – THE PARTICIPANTS VIEW

As you will probably know, the Department of Agriculture ran a Cervical Artificial Insemination (CAI) course. Willie Vivanco flew to the Falklands from Australia to train interested people in CAI. I caught up with the participants and asked them the following questions:

- Why did you decide to go on the course?
- Did you find it very difficult?
- Was it what you were expecting and did you enjoy it?
- What advice would you give someone if they would like to learn how to do it?

Below, is what some of them said:

My reason for going was to enable me to make better use of a few selected rams over a large number of ewes. The main benefits of that would be better genetics and keeping tabs on a much smaller bunch of rams. I didn't find it difficult at all; it was much more straight forward than I expected. My main advice to anyone considering it would be to set up dedicated facilities first as temperatures control and sterility are major factors.

Riki Evans

We did the course because it's a route which we would like to go down with farming. It wasn't difficult; it was very well explained. The advice we would give is if there was going to be another course and you were interested in going down that road, to make time and go on the course.

Phillip & Sheena Miller

I went on the course to gain a new skill to enable us to achieve quicker and more extensive results with new blood lines. It seemed quite technical but practice and experience should overcome that as one builds up confidence. It was pretty much what I expected but a bit more practical experience would have been good. It was very enjoyable with lots of laughs. I would tell people to go for it. I probably won't get everything set up on time for this year but the grey matter should retain enough information for us to use the technique in the future.

Ailsa Heathman

I was expecting it to be mind-boggling technical but it wasn't. It was very simple, easy and low-tech. I enjoyed it hugely and Willie is an excellent teacher. I would certainly recommend it to anyone who ever gets the chance to go on one of his courses.

Lucy Ellis

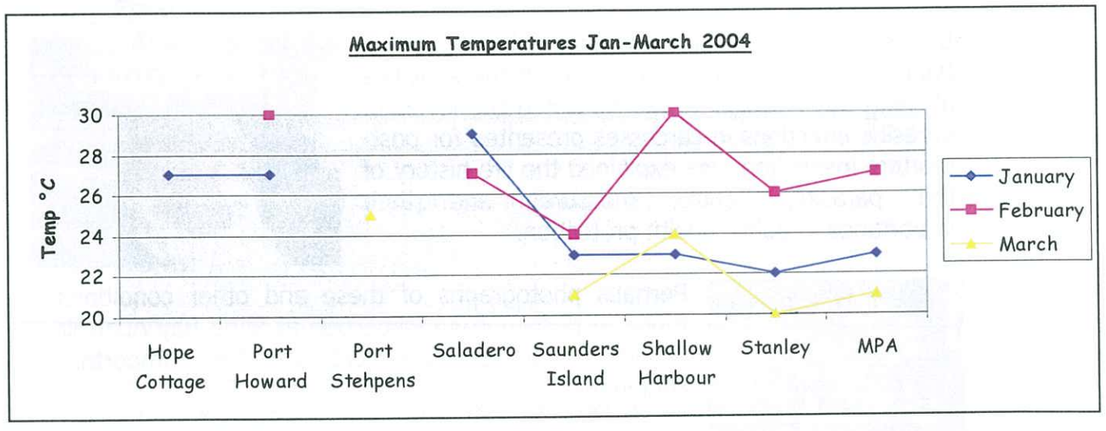
WEATHER FOR THE FIRST QUARTER 2004

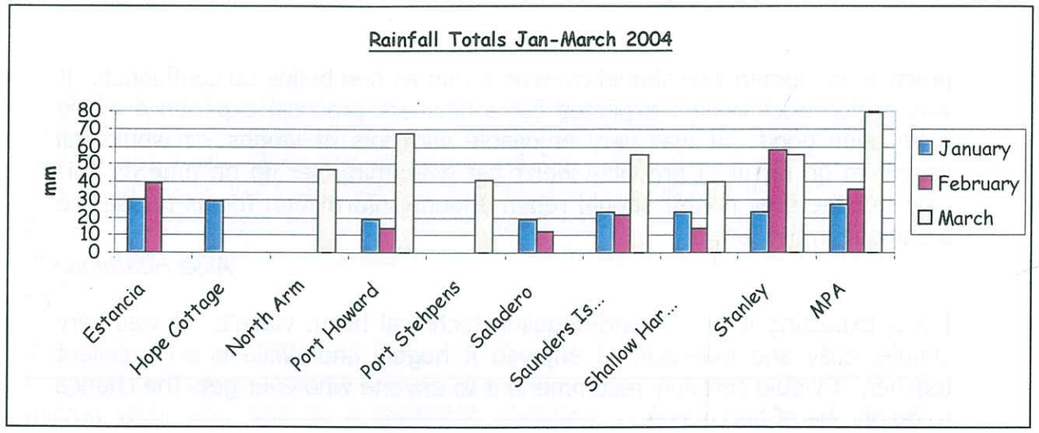
By Priscilla Halliday

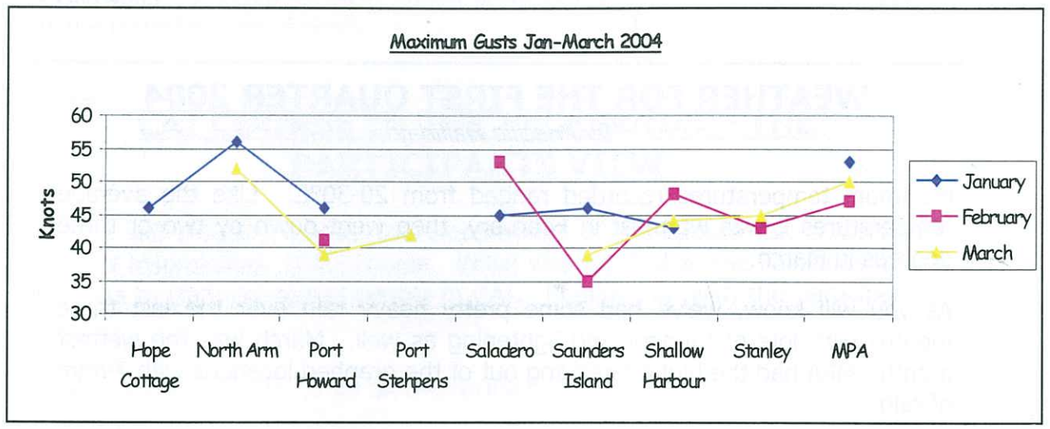
Maximum temperatures recorded ranged from 20-30°C. Like the average temperatures it was warmest in February, then went down by two or three degrees in March.

As you will know, we've had some pretty heavy rain over the last three months with lots of thunder and lightening as well. March was the wettest month. MPA had the highest reading out of the graphed locations with 79mm of rain.

We haven't had too many big gusts over the last three months. Gusts ranged from 39-56 knots.



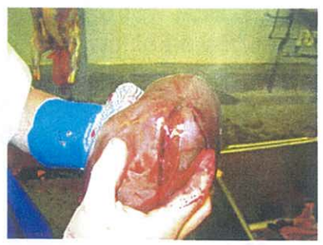




POST MORTEM PICTURES

By John Longstreeth

In last month's Wool Press my colleague Steve Pointing wrote an excellent article on the activities at Sand Bay Abattoir where he noted the levels of parasitic infections in carcasses presented for post-mortem inspection. He explained the life history of the parasite, control measures and their importance in public health protection.



Perhaps photographs of these and other conditions found at post-mortem inspection at Sand Bay Abattoir would be useful reminders of these important conditions.

Other conditions seen have included Caseous Lymphadenitis (boils) a very small number of joints affected with arthritis also very few cases of pneumonia and pleursey.

One of the most common post mortem findings is a condition called Sarcosporidiosis caused in the case of sheep by a protozoan (microscopic parasitic animal) called *Sarcocyctis gigantica.* It is found in the muscle of the oesophagus or gullet where it presents as "grains of rice " up to 1cm in length. It is another parasitic condition, the intermediate host being the cat. The condition is not of Public health significance.

The health status of sheep presented for slaughter is remarkably high. This is confirmed by detailed recording of all pathological conditions found at post mortem inspection. To further confirm this high health status it would be most useful if farmers could keep records of conditions seen during slaughter of sheep for mutton either for human or animal consumption. A suggested form is included

HYDATID DISEASE ERADICATION

FARM NAME:.....

Number of animals killed:..... **Date:.....**

Condition	No. Affected	Offal disposed	For sale *	For dogs meat	For own consumption
Hydatid					
Sheep measles					
Bladder cysts					
Boils					
Emaciation					
Arthritis					
Pleurisy/pneumonia					
Jaundice					

* Meat for retail sale (R) or to private individual (P)

Comments:

***Ed's Note: In last month's Wool Press reference was made to dog dosing dates. These are always set to take place on a Wednesday. This was done deliberately so that when the Hydatid Inspector visits your farm during dog dosing week he can visit various farms on every day of the week to supervise pilling. This means that no dogs will be outside the 'safe' period for dog dosing even if they are pilled slightly before or slightly after the 'official' dog dosing day.*

DEPARTMENT OF AGRICULTURE RAM SALE 2004

On 19th March 2004 the Department of Agriculture held their Annual Ram Sale in the Saladero shearing shed. All of the 90 Polwarth's were sold and 29 out of the 50 Corriedale's were sold with the highest price of this year's sale being paid for a Corriedale. More Corriedale's seemed to be sold this year than previous years. The sheep were in fabulous condition this year and they were a credit to John Hobman and Brian Aldridge. It was also noticed that quite a few new buyers attended the sale. Of course a big thank you must also go to Glynis & Helene for the great nosh that they cooked up on the BBQ. There were a lot of comments about the great food as well as the sheep! Below, you will see some pictures of the action on the day:

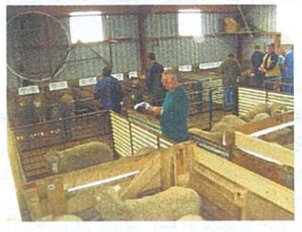













RAM SALE FIGURES

Polwarth Flock Rams

Lowest price paid	£10.00
Highest price paid	£100.00
Average	£31.32

Polwarth Sale Rams

Lowest price paid	£30.00
Highest price paid	£300.00
Average	£84.50

Corriedale Rams

Lowest price paid	£30.00
Highest price paid	£400.00
Average	£31.60

FRESH SEMEN SHEEP ARTIFICIAL INSEMINATION

By Susan Harvey

Over the years the type of farming stock that has been available has changed dramatically. New breeds have been developed and non-traditional species have been domesticated. There is usually a mad rush as certain animals come into fashion; angora goats in the 80s and ostriches in the 90s are two such examples. Some farmers spend an extraordinary amount of money acquiring a nucleus herd/flock. Red deer in New Zealand at one stage were worth so much that people were jumping out of helicopters to capture the feral population. Fortunes have been made and lost. Eventually the hype settles, the market value drops to a realistic level and many more farmers get on with the job of commercial production without chasing the big dollar. There are now deer farms everywhere in New Zealand and hardly an Angora goat farm to be found.

Many of the techniques we now use in animal reproduction, namely AI (artificial insemination) and ET (embryo transfer), have been developed during these hypes. Not only have they allowed rapid multiplication of certain qualities (e.g. fine wool or high milk production) but have also proved invaluable in transporting genetic material, with minimal risk of introducing new diseases around the world. Some of these techniques are, for animal welfare considerations, reserved for veterinary surgeons or highly trained technicians working in a team. Others can be taught and used effectively by farmers on their own livestock. One of these techniques is Fresh Semen AI.

Fresh Semen AI is a procedure by which farmers with one or several high value rams can dilute the semen and use it over a large number of ewes. Here in the Falklands we normally use one ram per 30 ewes. With an

experienced ram kept in an enclosed area of good grazing, 40–50 ewes would be acceptable. Using this technique, one good ejaculate from a ram could be diluted to cover 50 ewes. One ram could also provide 100 – 140 ejaculates a season making 5000 or more "doses". However, the ewes have to be in season when inseminated; they are either selected by use of a teaser animal or synchronisation. Naturally not all ewes will hold to a single insemination so the number of ewes one ram can "cover" is substantially less. 500/season would not be an unreasonable goal to set.

Rams have to be in good condition, well looked after and relaxed in human presence. They are taught to jump, initially a ewe in season, or even, as they become more accustomed to the procedure, a wether. The penis is deflected into an artificial vagina and the ejaculation collected. The ejaculate is examined for sperm motility and the concentration is counted. Using simple mathematics it is diluted down to allow a minimum of 100 million motile sperm calls per dose. This is then put into a straw and placed on the cervix of the ewe. Much easier said than done!! Results will vary substantially depending on how the semen is handled. It is very susceptible to cold and farmers using this technique, along with all the equipment will need a specialised warm area and patience.

With the potential to use a single ram over so many ewes, selection is of the utmost importance. Traits like susceptibility to wool blindness or black spots could have serious consequences.

Semen can also be collected and used the following day. This potentially allows for semen to be shared/traded around the Islands.

DUCKS & DISASTERS

By Zoe Luxton

There have been a few ups and downs recently and the first story unfortunately relates to the later pat of the title! I had been seeing a very cute little terrier called Dusty who was diabetic and I had been having trouble stabilising her blood glucose and it was time to think about other medical conditions which might be causing it to be continually way to high. One such condition is a hormonal imbalance called Cushings Disease, which can exist alongside diabetes making stabilisation very difficult. There are a couple of tests you can run for this and we chose to perform an ACTH stimulation test (won't bore you with the ins and outs and also can't actually remember what ACTH exactly stands for!!) Basically you get a blood sample from said dog, inject some synthetic hormone and get another blood test 2 hours later and send it off to the lab to do the clever stuff and decide wether the results fit in with the Cushings or not. Anyway, there I was getting all pleased at v. important medicine diagnostics that one was undertaking, injected the synthetic stuff and the poor little dog had a horrific anaphylactic reaction to it and dropped down dead and no amount of resuscitation was going to bring it back. The owners actually understood and took the news very well indeed, of course they were very sad but I think they probably handled it better than their vet who was snivelling and feeling so incredibly guilty I thought I would have to hand my vets badge in there and then. In hindsight you do just have to put it down as one of those things but it really brings home the massive responsibility you have!

There are pretty much equal ups to the downs though and it really does you good to know that a client values your help and opinion and thinks you are generally quite marvellous. Today I saw Minka, another gorgeous terrier who had had a fit like episode but seemed fine. I was just doing a quick top to toe examination to give her the all clear. Mrs G was merrily chatting away and listening to me explaining about the different reasons why dogs can have fits, while I checked eyes, ears, chest etc. As I moved on to palpate Minka's (really rather rotund!) abdomen I glanced at the computer screen to check if she was entire or not. "She's been speyed hasn't she?" I said, making conversation, "Gosh you are clever" said Mrs G "Fancy being able to tell that just by feeling her fat tummy!" Sadly I had to own up that I had actually just read the information and I wasn't a genius!

I have just had a jolly up to Birmingham to the Small Animal Vet. Association congress. Four days of lectures, getting freebies from Reps and catching up with friends who you don't ring enough. I just had a ticket for the Friday so was going to meet up with v. god chum Jenny who lives up there now, do a days "learning" and then drink wine and come home Saturday. Getting to Birmingham in time involved a 5.30a.m. start Friday morning and since I was on call Thursday night I was frantically praying to the God of Night-time call outs that I was to have a quiet night. Was not best pleased when I was dragged out of a deep sleep just after midnight. Was it a poor old dog in the throes of heart failure? Was it a little cat unfortunately mangled by a car? No, it was a very well meaning lady with a duck she had found in the road that may have been bumped by a car and was actually perfectly alright. So there was me struggling to stay awake in lectures having had much less sleep than required before a 3-hour trek up the M6. It was lovely to catch up with a lot of people however, but I was quite surprised at the number of ladies and gents from college who are either fed up being vets or have already had enough and changed career. Lots of stories start "You know how so and so is fed up and considering doing a PhD in whatever...". I would much prefer everyone to be happy in their chosen field so good luck to Richard doing his Masters in pancakes etc, but for now I am quite content muddling through general practice. Although I am on call again tonight and if I get any call outs after midnight to any slightly stunned farmyard animals I may well be re-thinking my opinion.

SHEEP ARTIFICIAL INSEMINATION WEBSITE

www.firthmuir.freeserve.co.uk

IMPORT IS SUSPECT IN BRUCELLOSIS OUTBREAK

Source: Farmers Weekly

Although the bull at the centre of the brucellosis outbreak in Cornwall is not an imported animal, DEFRA is tracing any contact with imported cattle in the hope of identifying the infection source.

The bull, bred on a farm in North Cornwall, arrived at Landare Farm, Duloe, Liskeard, where the infection was found last May. "The bull was one of the originally tested animals. It has now been culled and we are looking at the possibility that he may have contracted the disease in North Cornwall," says DEFRA's south-west spokesman.

Independent vet consultant Tony Andrews feels this case must be the result of an imported animal from Europe. He says the suspected bull must have been in contact with infected imported animals at some point, likely to be a female, if he were the infection source. Disease can be transmitted to cows via semen "But bulls with brucellosis often become sterile. So, he would have had to infect cows from his semen at service before his symptoms became apparent."

But the bull is only one possible source of the outbreak, adds DEFRA. "Wildlife can also spread the disease by moving infected afterbirth, but it is normally spread by cattle-to-cattle contact." The disease is most likely to be passed on by contact with infected afterbirth.

The disease could also have been spread from neighbouring farms, although initial tests on those farms are negative. The other possibility is that infection could have remained latent from previous outbreaks in England in 1993. "Dairy herds are monitored monthly using the milk ring test (MRT) on bulk samples and beef breeding animals are also blood tested from 24 months of age."

The most likely way a farm could introduce an infection is to buy an infected cow or bull. The infected farm is now clear of cattle, but no new cattle will be allowed on it until movement restrictions on neighbouring farms have been lifted.

DEAD ROOSTER

A man was driving down a narrow country lane when out into the road strayed a rooster. Whack! The rooster disappeared under the car in a cloud of feathers. Shaken, the man pulled over at the farmhouse and rang the doorbell. A farmer appeared. The man somewhat nervously said, "I think I killed your rooster, please allow me to replace him." "Suit yourself," the farmer replied, "the hens are round the back."

THE FARMER

By Robin Goodwin

Robin Goodwin kindly sent me the following poem to put in the Wool Press. He told me this was a sample poem from 50 that he has written. The rest of his poetry will be in his book "Living the Kelper's Dream" which is due to be published soon.

Wrinkled and haggard, tatty and worn
With skin all sunburned and brown
They live on the farms most of their lives
And seldom go near the town

They get up with the hens at the crack of dawn
While most other folk are still in their bed
They milk their cows and feed their sheep
While the wives make sure they are fed

The sheep are all shorn and wool pressed up tight
In two hundred kilogram packs
The reason they do this is so they get paid
From the wool that comes off the sheep's backs

Lamb marking is something they all have to do
And includes quite a few extra men
The ewes and lambs gathered from out in the camp
And they shut them all up in a pen

Lambs are parted from ewes through a small drafting gate
By a man at the end of the race
Their soon tagging lambs ears and chopping off tails
Getting blood all over their face

They used to ride horses in the years that's gone by
But now, all that seems a bit odd
Gasoline cowboys, that's what they are called
With dogs on the back of their quad

They used to have kalie's most every weekend
And to a neighbours place you would go
But now that's all gone, with the changes of time
Because TV is now your own show

Young people are drifting from Camp to the Town
Where big money is easily made
While the old timers sit back, in their old rocking chairs
Where their memories are beginning to fade

AUSTRALIA

Sam Davies

Well I finally got here after waiting for so long! But the extra year I spent at home was worthwhile, and also good for my bank account! Kim and I arrived here in Longreach on the 5th February; the first thing that hit us was the heat! But now we are used to it and it is not so bad! The flies bothered us for a while, but I think Kim was more worried about other creatures! The first week at college were mainly talks and issuing of paper work etc.

When the second week began it was all hands on and ready to go! My section started off in the sheep and wool part of the college, which I enjoyed thoroughly! I have loved every minute of my course so far. Last week we were in the horse section! Which, if most people know me well enough, would have known that would have been a challenge for me. Lets just say I am not a very horsey person and probably never will be! In the mornings we geared our horses up and went riding and in the afternoons we studied the theory side. When we were riding, we actually went out in the bush! Riding around the trees ducking from tree branches that so you wouldn't get knocked off your horse, avoiding spider's webs and occasionally spotting a kangaroo!

I started learning the basics of wool classing, by learning wool counts and micron. On one of the weeks with the wool section I visited a shearing shed, about the distance to Goose Green from Stanley but the road was straight all the way with the occasional turn! We had to prove that we were capable of shed skills, and after the sheep were shorn we had to drench them and spray external parasite control for lice. I was in the race with these merino wethers, their horns had been cut off but not totally off and I had my three-quarter track pants on drenching them. The amount of bruises I come out with from those horns was unbelievable!

The meat here at the college is local, all killed and chopped up by the students. I am not sure of the meat here; it's not like good old Falkland mutton! I could do with a feed of roast mutton, new potato's, baby carrots, cabbage and gravy mmmm! Any way back where I was!

For a few weekends now I've been asked by the sheep instructor Mr O'Reilly, if I could check the sheep in three paddocks, there have been dog attacks so we have to keep a close eye on them. I drug Kim out with me, and what the instructor forgot to tell us was that they kept goat dogs in with the goats to protect them. Let's just say Kim and I still have not lived that down yet!

I am really enjoying my course, some of it I already had a basic idea about. But there are some areas that all students have no idea about. E.g. Pipe connections for underground lines for water troughs. I would certainly recommend this college for young enthusiastic people with general interests in agriculture; it is definitely a worth while experience.

PASTURE IMPROVEMENT

With next season fast creeping up on us can all farmers who are considering pasture improvements and would like to use Pool Machinery, please book it well in advance. We would also appreciate it if people requiring us to come and do the work for them could get in touch at their earliest convenience. When deciding what work you would like doing, please consider what animals are going to be grazing these areas; finishing lambs, weaners for the abattoir, or just grazing for your sheep/cows.

We will be away from mid June until late August. If you have any enquiries during this period, or would like to book machinery/work can you please call Michael and Donna Minnell on ph: 31128, fax: 31129 or e-mail minnell@horizon.co.fk

Thank you

Philip & Sheena
Cape Dolphin
Ph; 41015, Fax; 41014, E-mail; phil.miller@horizon.co.fk

The Brain

In the hospital the relatives gathered in the waiting room, where their family member lay gravely ill. Finally, the doctor came in looking tired and sombre.

"I'm afraid I'm the bearer of bad news", he said as he surveyed the worried faces. "The only hope left for your loved one at this time is a brain transplant".

The family members sat silent as they absorbed the news. After a great length of time, someone asked, "Well how much does a brain cost?"

The doctor quickly responded, "£5,000 for a male brain, and £200 for a female brain".

The moment turned awkward. Men in the room tried not to smile, avoiding eye contact with the women, but some actually smirked. A man unable to control his curiosity blurted out the question everyone wanted to ask, "Why is the male brain so much more?"

The doctor smiled at the childish innocence and explained to the entire group, "It's just standard pricing procedure. We have to mark down the price of the female brains, because they've actually been used".

HERMAPHRODITE LAMBS

By Sue Harvey

I was intrigued to hear stories of hermaphrodite (both sexes) lambs in the Falklands, which was something I had not come across before in sheep. In fact I have only seen the condition twice before in dogs. Interestedly both were when I was doing a 2-week locum in Essex. I was delighted when Lucy brought one back to the clinic for me to have a close inspection.

What I found was not a hermaphrodite lamb but a male lamb whose urethra (tube between the bladder and the tip of the penis) had not closed properly. What appeared to be his 'vagina' was in fact an opening of this tube – hence all the urine coming out of it and the smell. This tube continued to be open, which was why the testicles where split in to 2 separate sacks, normally the urethra passes closed between the body wall and the scrotum. With this lamb the urethra then closed as it reached the penis. Urine would not have been passing through into the penis, nor for that matter would sperm be able to. At least there was no way the lamb would be fertile!

LAME DOG

A man brought a very limp dog into the veterinary clinic. As he lay the dog on the table, the doctor pulled out his stethoscope, placing the receptor on the dog's chest. After a moment or two, the vet shook his head sadly and said, "I'm sorry, but your dog has passed away."

"What?" screamed the man. "How can you tell? You haven't done any testing on him or anything. I want another opinion!"

With that, the vet turned and left the room. In a few moments he returned with a Labrador Retriever. The Retriever went right to work, checking the poor dead dog out thoroughly. After a considerable amount of sniffing, the Retriever sadly shook his head and said, "woof."

The veterinarian then took the Labrador out and returned in a few moments with a cat, who also checked out the poor dog on the table. As had his predecessors, the cat sadly shook his head and said, "Meow." He then jumped off the table and ran out of the room.

The veterinarian handed the man a bill for £600. The dog's owner freaked. "£600! Just to tell me my dog is dead? This is outrageous!" The vet shook his head sadly and explained. "If you had taken my word for it, it would have been £50, but what with the lab work and the cat scan..."

TOMATO PASTE

Ingredients

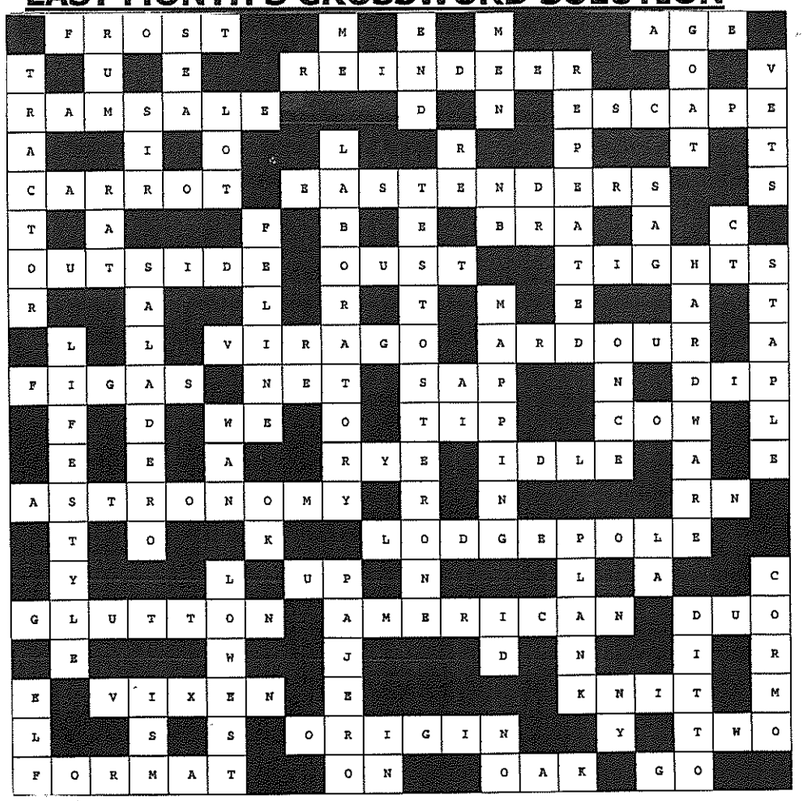
Onion, Garlic (optional), Parsley
Bacon
Tomatoes
Egg
Sugar

Method

- Chop up some onion, garlic and parsley and fry in a wok with a little oil.
- Stir in some bacon and let it cook for a couple of minutes.
- Add tomatoes and stir, then let it simmer for a few minutes.
- Break an egg into the mixture and stir it in to thicken it. Once the egg is stirred in properly leave to simmer for a few more minutes.
- Add a little bit of sugar to taste and take any bitterness away.

Put on some bread and butter for a tasty snack.
You can also put on top of pizza or in quiche.

LAST MONTH'S CROSSWORD SOLUTION



The Wool Press

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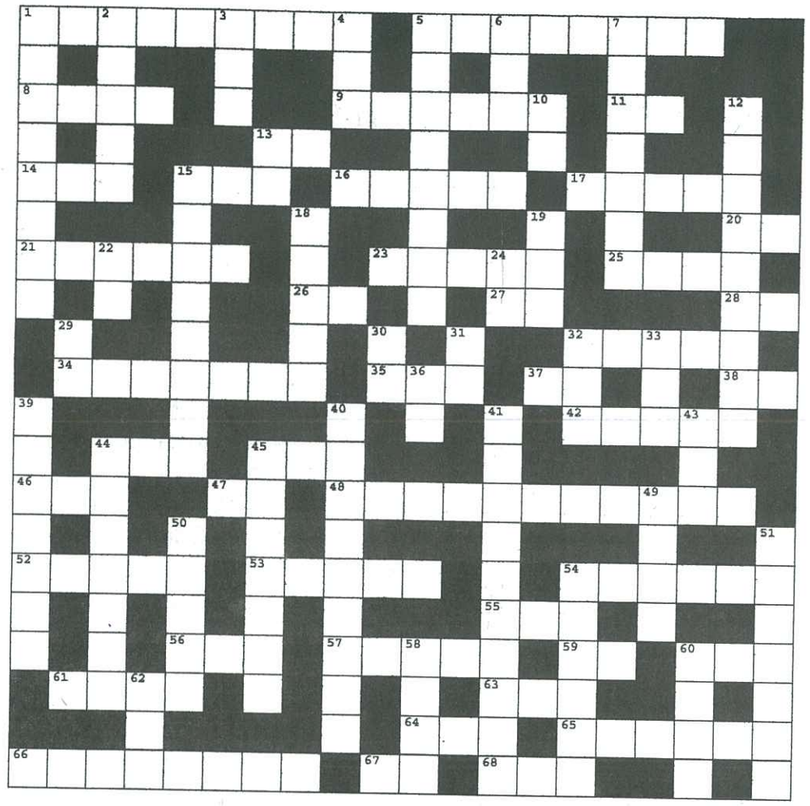


ACROSS

1. SHOP ON JOHN STREET
5. BUSY HILL IN STANLEY
8. SHOP NEXT TO THE CHILDRENS PARK
9. MALE GOOSE
11. REFERING TO MORE THAN ONE PERSON INCLUDING THE PERSON ADDRESSED
13. PERSONAL ASSISTANT
14. THE FALKLANDS IS SURROUNDED BY IT
15. FALKLAND ISLANDS COMPANY
16. JULIE'S PUB
17. BUSY STREET NEAR TOP OF PHILOMEL
20. TUBERCULOSIS
21. PUB ON JOHN STREET
23. A WINTER SPORT
25. SLANG FOR EARS
26. GENERAL ANAESTHETIC
27. ALCOHOLICS ANONYMOUS
28. TELEVISION
32. PEOPLE STOP FOR THIS AT 10 EVERY MORNING
34. HOSPITAL ROAD
35. MOTHER
37. NOT YES
38. SHORTHAND FOR IN REFERENCE TO
42. HAWKSWORTH'S ISLAND
44. STANLEY SERVICES LTD
45. ROUND GREEN VEGETABLE
46. MEOW
47. COMMANDING OFFICER
48. CHURCH CLOSE TO THE STEEN'S HOUSE
52. COMMON VEGETABLE OFTEN EATEN WITH A HOTDOG
53. LONG GREEN VEGETABLE
54. BONE THAT EXTENDS FROM SHOULDER TO ELBOW
55. WOMEN THINK MEN HAVE A BIG ONE OF THESE
56. GO TO MACDONALDS & HAVE A BIG?
57. VERY FAST
59. SPANISH YES
60. FELT OR WOOL CAP SHAPED LIKE TRUNCATED CONE
61. AN ISLAND
63. THIS CAN BE MUSIC, PAINTING, DRAWING ETC
64. NOT WELL
65. AI & ?T
66. DAVID'S ISLAND
67. IDENTIFICATION
68. FISH WITH SNAKE LIKE BODY

DOWN

1. STANLEY DAIRY
2. IT'S A NICE ... WHEN CHOPS ARE COOKING
3. YOU NEED THIS LICENCE TO DRIVE TRUCKS
4. WHAT A HEN PRODUCES
5. FIRST NAME OF SHOP ON DAVIS STREET
6. WHAT WE GET WHEN IT FREEZES
7. A TRADITIONAL EVENT IN MAY
10. CROWN COUNSEL A'S INITIALS
12. ONE OF THE MAIN SHOPS
13. POLICE CONSTABLE
15. THE SAINTS BEAT PENGUIN NEWS AT THIS
18. ONE OF THE BIGGEST FAMILIES IN THE FALKLANDS
19. ANOTHER NAME FOR AMERICA
22. MORNING
24. CHILD'S THANK YOU
29. ME & YOU
30. AFTERNOON
31. RAIN IS USUALLY MEASURE IN
32. SAVE OUR SOULS
33. WHEN YOU'RE NOT YOUNG ANYMORE
36. LOCALS USUALLY GO THERE FOR A HOLIDAY
39. GREEN ON FRONT ROAD
40. BIGGEST CHURCH IN STANLEY
41. A BREED OF SHEEP IN FALKLANDS
43. WHAT PEOPLE PUT IN THEIR HAIR
44. SHEARERS JEANS
45. COUNTRY SHOW EVERY THURSDAY NIGHT
49. HOSPITAL
50. ONE WAS STOLEN FROM KAYS GARDEN
51. FLH FARM
54. STANLEY HOUSE...
58. GOVERNMENT EMPLOYEES GET THIS AT THE END OF THE MONTH
60. ANGER
62. FIRST NAME OF THE SATURDAY FLIGHT

EDITORIAL

Dear Reader,

The recent budget process for the 2004/05 financial year has concluded and the farming sector has received positive financial support from Councillors to develop the agricultural projects outlined in the Department of Agriculture's Business Plan. With reduced income to the Falkland Islands Government this is very welcome. If you were not able to attend one of the Roadshow meetings held at Hope Cottage, Goose Green & Fox Bay recently, where the Chief Executive Chris Simpkins and colleagues expanded on the budget process, please let me know and I will send you details of our presentation.

The Incentive Scheme and Fencing budget have ended as planned, but there is a firm commitment to funding the broadened Pasture Improvement Scheme (PIP). The new guidelines from July onwards, that evolved from shed meetings with farmers over the last year, are included in this edition of the Wool Press. The scheme will be discussed in detail at the Department's meetings in Farmers Week in July.

Funds towards the PIP scheme, Business Development and to be confirmed an expanded ET programme, are to be drawn down from STABEX financing. This is an excellent use of EU funds and will require positive outcomes as work progresses in order to trigger release of the money. Department staff have a lot of work to do to deliver the programmes that aim to help farmers to run more profitable businesses.

Many readers met Adrian Veitch, the Veterinary Surgeon, who conducted a sheep ET/AI programme over a two week period in late May and early June. He, with a team from the Department, worked diligently at four centres; Saladero, Goose Green, Cape Dolphin and West Lagoons. Congratulations to all farmers and staff involved. Planning and preparation were excellent and everyone worked extremely hard to ensure the programme was a success. Finding additional sheep for some extra embryos was a challenge (and an extra day's work!) and made best use of the available genetic material. Adrian has given us a lot of practical advice and we plan to maintain links with him. Lets hope the winter is kind and lambing is good.

See you all in Farmers Week

Phyl
Director of Minerals & Agriculture

EWE CHARACTERISTICS AFFECTING LAMB MARKING % IN THE FALKLAND ISLANDS

By Niilo Gobius

As part of the analysis of a Monitoring and Modelling project conducted on 9 farms around the Falklands for the last 2 or so years, factors that might be affecting the reproductive performance of ewes have been examined. As you will see in the following graphs, some very strong relationships can be seen between marking %, age, weight, weight change during pregnancy and body condition score (BCS). These relationships have been drawn using the data from between 1250 and 1500 ewes, over two years, from 9 camps across the Falklands which vary dramatically in terms of their vegetation base and climate.

The strength of a relationship between two factors e.g. marking % and age, is best described by their correlation coefficient (R^2). If the R^2 =1.0, we would expect that one factor (age) has total influence on the other factor (lambing %), if the R^2 =0.1, it would appear that there is very little relationship between the two factors

1. Effect of the age of ewes at mating on marking %
Figure 1 shows that, in the Falklands, the age of ewes at mating has a very strong influence on the potential marking % of the flock. The R^2 value of nearly 0.94, is as high as a relationship might get.

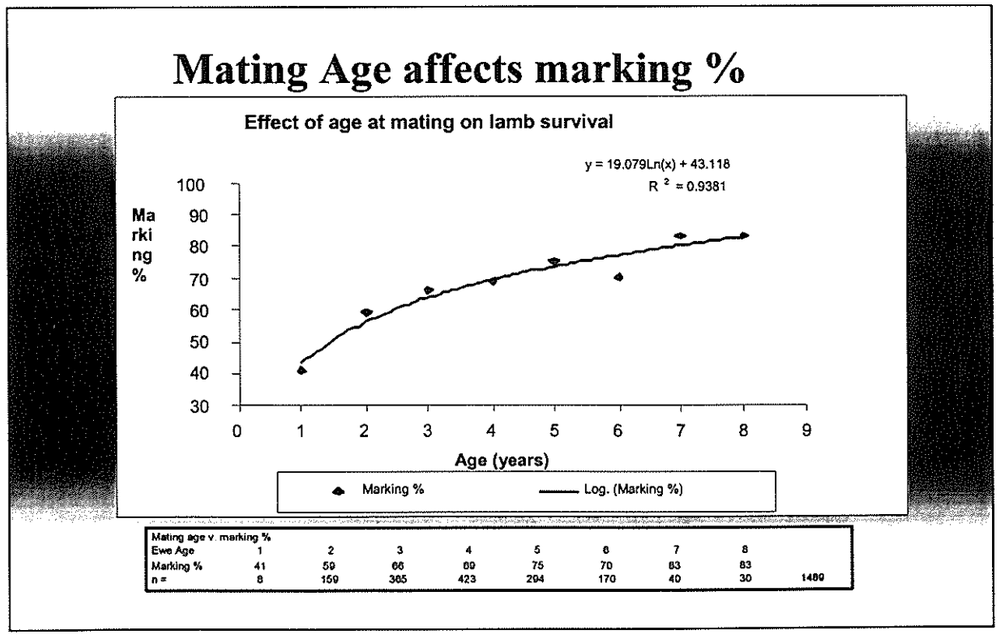
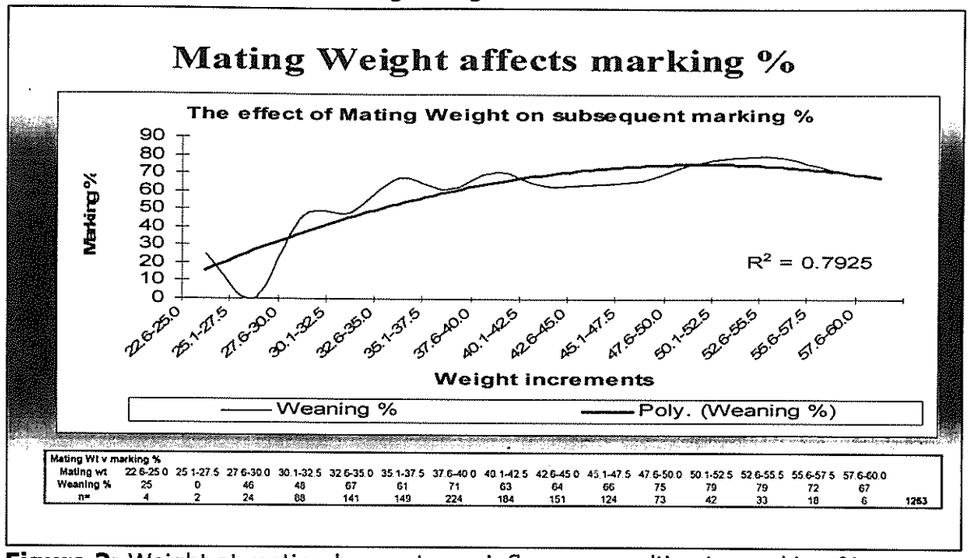


Figure 1: Age at mating has a very strong influence on ultimate marking %.

2. Effect of ewe weight at mating on marking %

Figure 2 shows that, in the Falklands, the weight of ewes at mating has a strong influence on the subsequent marking % (R^2 =0.79), but the relationship is not as strong as it is with age. A close positive relationship exists between liveweight and ovulation rate. Mature weight and age are probably closely related, however, as age shows a stronger relationship with marking % it could be assumed that an 'experience' factor as well as 'weight' might be involved.

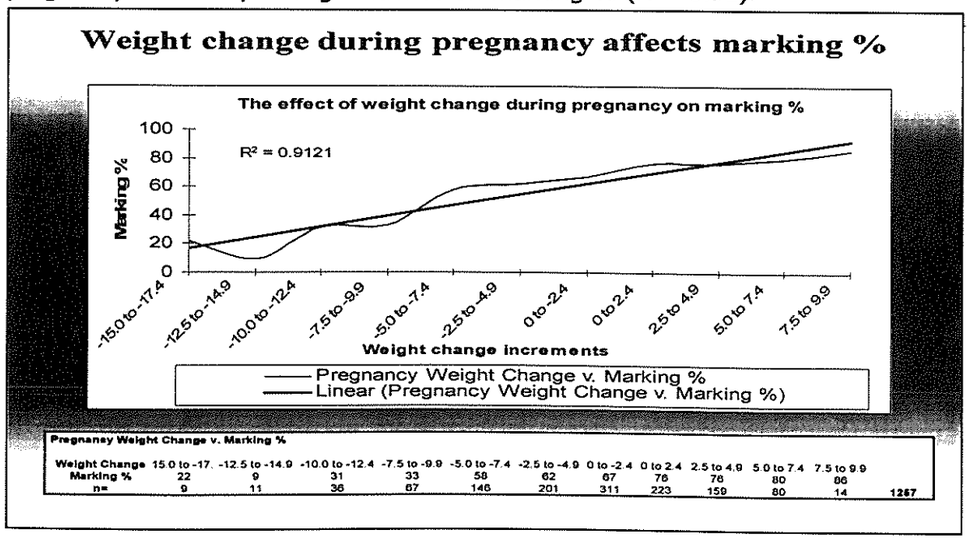


Mating Wt v marking %															
Mating wt	22.6-25.0	25.1-27.5	27.6-30.0	30.1-32.5	32.6-35.0	35.1-37.5	37.6-40.0	40.1-42.5	42.6-45.0	45.1-47.5	47.6-50.0	50.1-52.5	52.6-55.5	55.6-57.5	57.6-60.0	
Weaning %	25	0	46	48	67	61	71	63	64	66	75	79	79	72	67	
n=	4	2	24	88	141	149	224	184	151	124	73	42	33	18	6	1263

Figure 2: Weight at mating has a strong influence on ultimate marking %.

3. Effect of ewe weight change during pregnancy on marking %

Figure 3 shows that, in the Falklands, the weight change experienced by ewes during pregnancy has a very strong influence on marking % (R^2 =0.91).



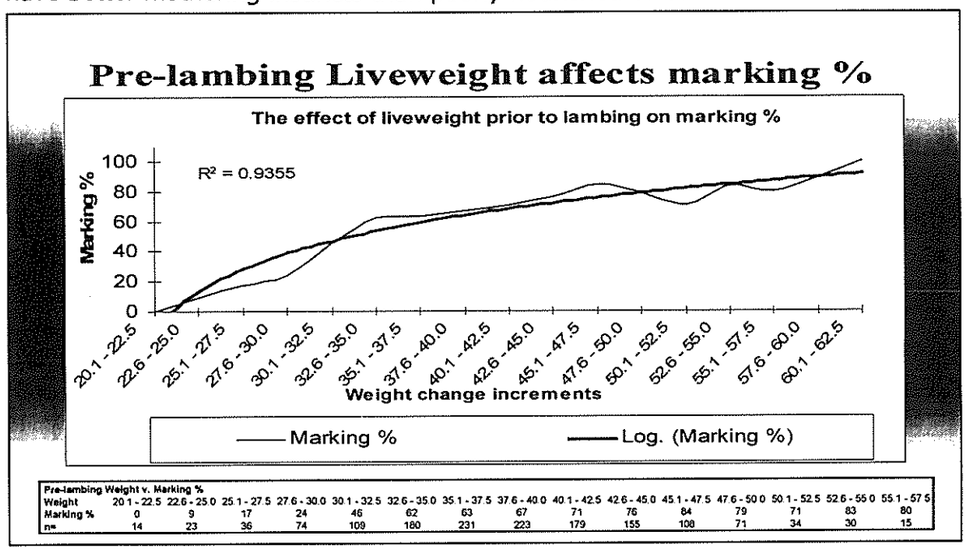
Pregnancy Weight Change v. Marking %											
Weight Change	15.0 to -17.	-12.5 to -14.9	-10.0 to -12.4	-7.5 to -9.9	-5.0 to -7.4	-2.5 to -4.9	0 to -2.4	0 to 2.4	2.5 to 4.9	5.0 to 7.4	7.5 to 9.9	
Marking %	22	9	31	33	58	62	67	76	76	80	86	
n=	9	11	36	87	146	201	311	223	159	80	14	1267

Figure 3: Weight change during pregnancy has a great effect on ultimate marking %.

The greater the weight loss during pregnancy, the lower the marking % is likely to be. On the other hand, if the flock of ewes can be managed so that ewes gain weight during pregnancy, marking % is likely to increase in response.

4. Effect of ewe liveweight prior to lambing on marking %

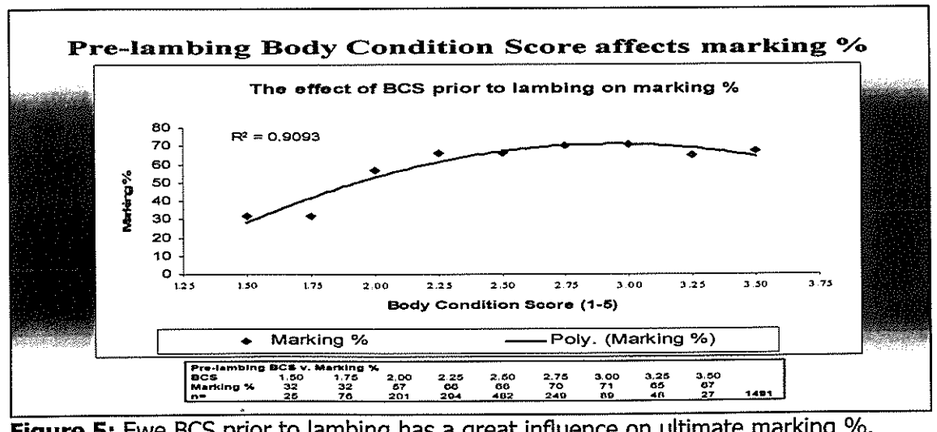
As liveweight at joining and weight change during pregnancy have been shown to have great influence on marking %, we would expect the same strength of relationship between marking % and ewe liveweight prior to lambing. Indeed, Figure 4 shows that marking % and ewe liveweight prior to lambing are highly correlated (R^2 =0.94). Such a finding supports the wealth of research, and farmer experience that has shown that strong well nourished ewes at lambing provide more milk and have better mothering instincts than poorly nourished ewes.



Pre-lambing Weight v. Marking %																					
Weight	20.1 - 22.5	22.6 - 25.0	25.1 - 27.5	27.6 - 30.0	30.1 - 32.5	32.6 - 35.0	35.1 - 37.5	37.6 - 40.0	40.1 - 42.5	42.6 - 45.0	45.1 - 47.5	47.6 - 50.0	50.1 - 52.5	52.6 - 55.0	55.1 - 57.5						
Marking %	0	9	17	24	45	62	63	67	71	76	84	79	71	83	80						
n=	14	23	36	74	109	180	231	223	179	155	108	71	34	30	15						

Figure 4: Ewe liveweight prior to lambing has a great influence on ultimate marking %.

5. Effect of ewe BCS prior to lambing on marking %



Pre-lambing BCS v. Marking %											
BCS	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50		
Marking %	32	32	57	66	66	70	71	65	67		
n=	25	76	201	204	402	249	89	46	27	1491	

Figure 5: Ewe BCS prior to lambing has a great influence on ultimate marking %.

Figure 5 shows that marking % and ewe BCS prior to lambing are highly correlated (R^2 =0.91). BCS is a measure of the amount of 'condition', or fat, on an animal. Fat is the body's mechanism of storing energy. So the more energy reserves a ewe has at lambing, the greater its chances of producing milk for a lamb and, ultimately, rearing it to marking.

In summary these relationships can guide management support towards greater lamb marking percentages:

1. Remember that older ewes rear more lambs, probably through a combination of being heavier and more 'experienced'.
2. Weight-at-mating alone has a big influence on subsequent marking % so every cost-effective effort should be made to increase ewe liveweight. Research clearly demonstrates that ovulation rate increases with liveweight (by as much as 4% per 1kg increase in liveweight). Growing young ewes to greater weights will increase their lifetime productivity.
3. Do all that is economically possible to maintain, or better still increase liveweights during pregnancy to increase marking %'s. This ensures the foetus grows normally, the lamb is strong at birth and the ewe is ready to produce a lot of milk and to have strong mothering instincts.
4. Having ewes in good body condition at lambing provides greater energy reserves for milk production.

AN OVERVIEW OF RECENT WORK CARRIED OUT AT THE DOA LABORATORY

By Gordon Lennie

The work carried out by the agronomy lab technician is quite varied throughout the year. Wool testing is carried out during the summer period and as we move towards winter the work is more plant/soil based.

Over the past few months the lab has been doing quite a lot of work with soils. DoA staff have established a number of sites that are of interest to farmers. These have included areas with forage crops, new areas that have been worked up during the latter part of the season and also a number of fertiliser trial sites.

The soil cores that they collect are brought in to the lab where they are catalogued and assigned a lab number. The wet samples are mixed and sub-sampled before drying at a low temperature (~ 40° C) in the drying ovens. All the analysis of soils is done on the air-dried soils.

The main tests that the lab carries out on soils are pH, available nitrate-nitrogen, phosphorus, potassium and exchangeable bases (Calcium, magnesium, potassium and sodium).

Farmers can be given advice on fertiliser recommendations and site selection based on the soil results. There has been an occasion where a crop has failed on a particular site and soil samples have been taken to investigate the reasons for the poor establishment.

In addition to soil testing, various tests are also carried out on plant samples. Samples of brassica crops were recently collected from a number of forage crop trial sites. These were looked at for dry matter yield. The root crops are normally split into two samples, the leaf part and the root (or bulb). The soil was washed off these samples as this would lead to inaccurate weights for the % dry yield.

The root bulbs have to be sliced up to improve the drying time of the sample in the oven (1-2 days) at 100 °C.

Another job that the lab is involved with is the preparation of fish/squid samples for the microbiology lab at the KEMH. The vets collect these samples when fishing vessels do their transhipments in Berkeley sound and the frozen blocks of samples are kept in our freezers until we are ready to test these.

A small sample of the squid or fish is mashed up with a peptone solution in a stomacher bag and the sealed sample is submitted to the microbiology lab for a bacteria count.

The fish/squid are also given an organoleptic check as well. This is an assessment of the appearance of the frozen fish or squid, smell, packaging, colour and presence of ink etc.

GRAZING MANAGEMENT PART 1
SOIL & PLANT NUTRIENTS

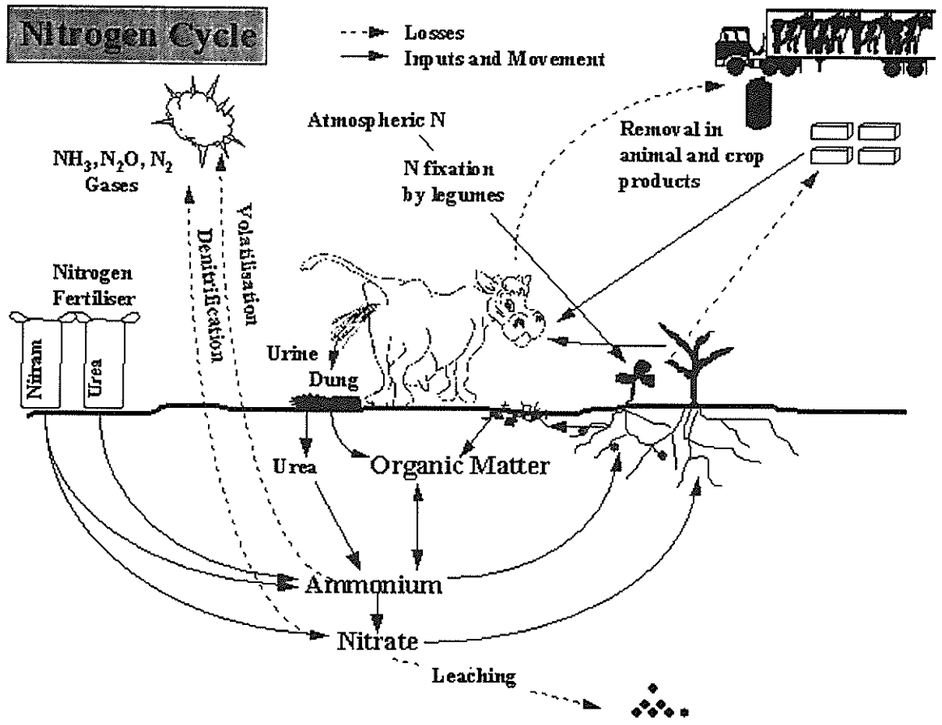
By Doug Martin

THE NITROGEN CYCLE

Nitrogen is present in the soil in many different forms (Figure 6.1), including as a gas (N_2); as various oxides of nitrogen, such as nitrate (NO_3) and nitrite (NO_2); and as ammonia (NH_3), amines (formed from ammonia), or ammonium (NH_4). Organic matter is a major storage area for nitrogen. In fact, in most soils, more than 95% of the nitrogen is present in the organic matter.

Plants can only use two of the many forms of nitrogen, namely, nitrate and ammonium. Therefore, other forms of nitrogen need to be converted to either nitrate or ammonium before the plant can use them. The conversion process is carried out by various soil micro-organisms, such as fungi and bacteria, and by chemical reactions in the soil.

Major losses of nitrogen occur through leaching, denitrification (breakdown of nitrogen compounds to less available forms), volatilisation (conversion of nitrogen to gaseous forms, which are lost to the atmosphere), and the removal of animal products and fodder. Nitrogen is returned to the soil via animal manure and urine, bought-in feeds, nitrogenous fertilisers, and legumes.



Where do clovers fit in?

The atmosphere is about 80% N, but only legumes (such as clovers) are able to utilise nitrogen from the air. They are able to do this by the development of small growths on their root system called nodules. These nodules contain bacteria called rhizobia, which can fix, or convert, nitrogen from the air into a plant-available form. This fixed nitrogen then becomes part of the pasture nitrogen cycle. The nitrogen becomes available to grasses when the nodules or clover plants (roots, stems, and leaves) die. The legume root nodules have a life span of up to 6 weeks, and new ones are constantly developing. The nodules are a pinkish colour when actively fixing nitrogen; however, they may be white, green or brown if growing in suboptimal conditions.

Different legumes fix and use different levels of nitrogen, however working on a rule of thumb for each tonne of legume dry matter, 25kg of nitrogen may be fixed.

An ideal grass: legume ratio if 70:30. A reasonable legume pasture may fix 125kg of nitrogen per hectare. This is equivalent to 270kg of urea. With many reseeds in the Falkland Islands producing no more than 2 tonnes dry matter per ha per year, (reseeds have a potential of 20 tonnes dry matter per year), at this stage it is likely that in these cases no more than 15kg per ha Nitrogen is being fixed, equivalent to 33kg urea.

On several sites this season the dry matter yields of legume have been estimated to be in the vicinity of 2.5 to 3 tonnes per ha. If nodulation took place this would equate to 63-75kg Nitrogen or 130-160kg urea.

The rhizobia bacteria supply nitrogen compounds to the clover, and the clover supplies carbohydrates (energy) to the nitrogen-fixing rhizobia bacteria. If the soil environment is not ideal (for example, high acidity, lack of other nutrients, dry soils, or salinity), these bacteria are dramatically affected, which results in reduced nitrogen fixation.

The various legume species often require inoculation (seed is mixed with rhizobia bacteria) of the seed at sowing. Specific strains of the rhizobia bacteria are required for each of the major legume groups. Subclovers require inoculant strain C, and white clover requires inoculant strain B.

It is especially essential to inoculate legume seeds when sowing into virgin, or newly cleared, land because the soil will not have rhizobia present. Although it may not always be necessary to inoculate when re-sowing an old pasture, it is advisable and is cheap insurance to give the young clover plants a better start in life.

Lime coating of the clover seed ensures that the soil environment surrounding the seed is more favourable (in other words, less acidic) for the rhizobia bacteria and young clover roots.

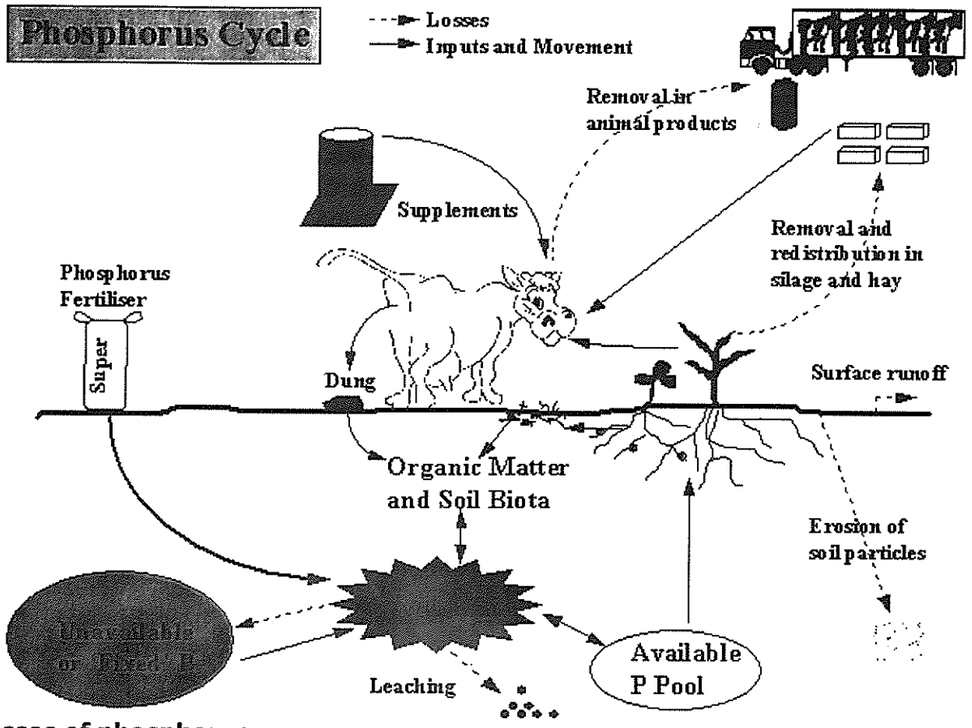
In addition, several proprietary forms of coating (for example, Prillcote and Agricote) contain ingredients to ensure longer survival of the inoculant if sowing is likely to be delayed; in other words, these coatings extend the life of or protect the rhyzobia bacteria until they are placed in the soil.

THE PHOSPHORUS CYCLE

When fertiliser containing phosphorus, (for example, superphosphate) is applied to a pasture, the phosphorus enters the phosphorus cycle of the pasture. As can be seen from the accompanying diagram the phosphorus can move around the system, as well as be lost from the system, in many different ways.

The phosphorus in the soil can be taken up by plants, then consumed by animals and returned to the soil. The phosphorus can also move about in the soil, changing in its chemical form and in its availability to plants. Much information regarding the phosphorus cycle (and other nutrient cycles) needs to be clarified by further research.

Despite the movement shown in the diagram, phosphorus in the soil is relatively immobile. Many chemical reactions take place when phosphorus is applied to the soil, and only a small proportion remains in solution and is readily available to the plants. The remainder is bonded or fixed in an unavailable form to the surface of the soil particles and organic matter. A proportion of this fixed phosphorus does become available over a period of time and is referred to as the soil phosphorus reserve. (See Fixation under Losses of phosphorus below.)



Losses of phosphorus

Phosphorus, supplied either as fertiliser applications or naturally from the soil, undergoes losses by various mechanisms. These losses occur by:

- Product removal.
- Redistribution of urine and dung.
- Soil losses:
- Leaching.
- Surface runoff.
- Soil fixation.
- Erosion

These forms of phosphorus loss are discussed below.

Removal of phosphorus in plant and animal products:

Phosphorus is lost from a pasture in plant and animal products. Cutting hay or silage on a paddock and not feeding it back on the same paddock can very quickly mine its fertility. Product removal will result in a certain amount of phosphorus leaving the farm. Meat production results in higher losses of phosphorus than does wool production.

Redistribution of faeces and urine

Large quantities of phosphorus can be removed from or relocated within a grazing area or pasture. Through behaviour and management cows and sheep graze pasture from all over the paddock but deposit a greater proportion of dung around gateways, stock camps, shelter belts, watering points, etc.

Soil losses

Leaching: The amount of leaching (washing out of nutrients in the soil water) that occurs in soils varies widely according to the type of nutrient, soil type, and amount of rainfall. Leaching is related to the amount of organic matter or the amount and types of clay minerals to which the phosphorus can adsorb (attach). This is more of a problem in the sandy soil types since they contain low amounts of organic matter and clay minerals. We do not have accurate figures as yet for this loss in Falkland Island soils under a pasture situation, but leaching is known to be relatively low in most soil types.

Potassium, sulphur and under some situations, nitrogen, are more prone to leaching than phosphorus.

Surface runoff:

As much as 11% of applied phosphorus can be carried away in runoff water. A small amount of applied phosphorus may be lost via surface water carrying away minute amounts of phosphorus. This amount is much higher if a heavy rainfall occurs within days of applying the fertiliser. Provided there is good pasture cover and soil erosion is minimal, the majority of the phosphorus lost via this means is in a soluble phosphorus form. This soluble form is so small (virus size) that buffer strips have very little effect in preventing this particular nutrient loss. The major effect of this loss is that this phosphorus is carried to ponds and lakes and, in combination with the plentiful supply of nitrogen in these areas, allows blue-green algal blooms to occur. Losses from phosphorus dissolved in soil moisture, especially following heavy rain, are dependent on the time since application of fertiliser, soil type, rainfall intensity, slope, etc. This is an area of research currently receiving much attention.

Fixation:

Soils high in organic matter or clay content have a stronger phosphorus-fixing capacity than do sandy soils. Some clay soil types (for example, krasnozems, or red soils) adsorb more phosphorus than other clay soils because of the type of clay mineral in the topsoil. Most of this adsorbed phosphorus is not available to the plant, although some may become available over time.

Soils with high aluminium and iron levels usually have a high phosphorus-fixing capacity. In these soils, the phosphorus reacts with the aluminium or iron to form relatively insoluble chemical compounds, which results in a higher proportion of applied phosphorus being locked up and unavailable to plants.

This is what happens in many of the soils in the Falkland Islands. As the pH approaches 5.5 Phosphorus becomes tied-up or fixed and is thus unavailable to plants. Aluminium, if it occurs in the root zone, also becomes toxic to the plant roots, which are not able to fully develop.

Soils vary widely in the amount of phosphorus (and other nutrients) fixed in soils, and the amount for each soil type is not well known as yet.

Erosion of soil particles: Since phosphorus binds quickly to soil particles, it is obvious that soil erosion (such as along ditches and from severely pugged areas) can result

in phosphorus losses. These amounts are very small but may be a significant contributor to an environmental problem. Accurate figures for this loss of phosphorus are difficult to assess for individual farms. It is small but should be reduced or completely stopped, if possible.

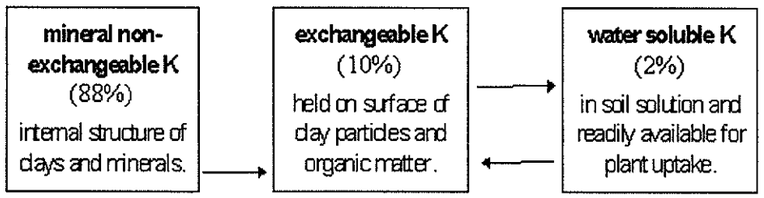
THE POTASSIUM CYCLE

Potassium in a grazing system is recycled in a similar way to phosphorous. Animals grazing pastures recycle most of the potassium they take in as urine. However, they concentrate this potassium return around water troughs, stock camps and pens. Hay-making and silage-making are the major ways that potassium reserves are removed or redistributed.

Unlike phosphorus, when potassium is applied as a fertiliser it does not react with the soil to form insoluble compounds. Instead, it can be temporarily held in the clay particles as exchangeable potassium and becomes available for plant uptake when it moves back into the soil solution.

Potassium is found in three forms in the soil: mineral non-exchangeable potassium, exchangeable potassium, and water-soluble potassium. The amount in each form will depend on soil type and the amount of applied potassium.

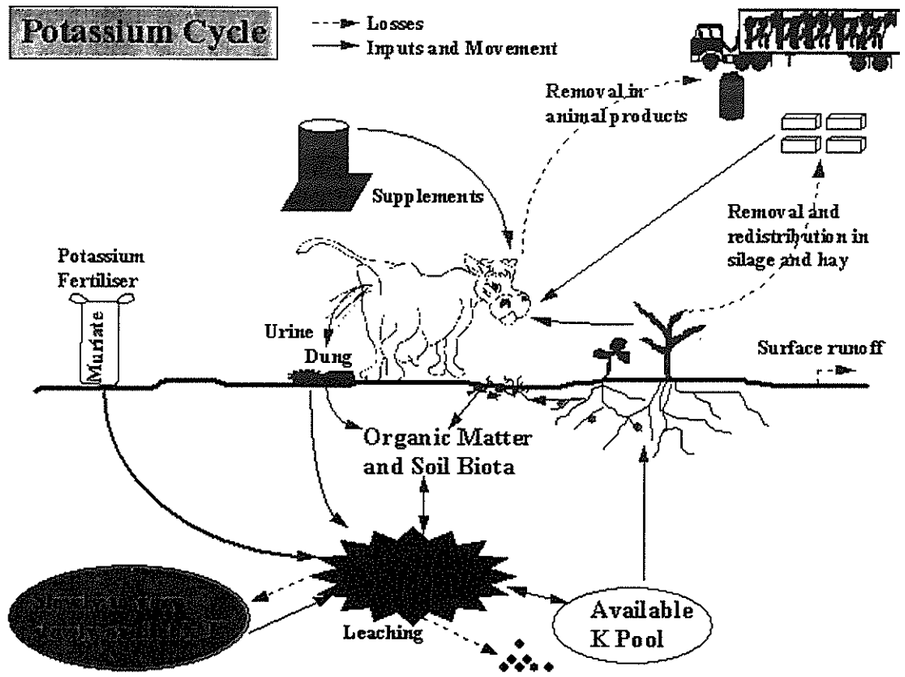
Approximately 88% are in the non-exchangeable form and are part of the internal structure of clays, mineral particles and parent rock material. This form is not available for plant uptake. Approximately 10% are in the exchangeable form and is lightly bound or held (adsorbed) on the surface of clay particles and organic matter. This form becomes available to plants when it exchanges with other cations and moves back into the soil solution. Hence, it is referred to as exchangeable K when it is measured in a soil test. Approximately 2% is in the soil solution and readily available for uptake by plants. This is the potassium that is measured in a soil test as available K .



Losses of potassium

The potential for fixation or leaching of potassium depends largely on the soil clay content and its mineralogy, the level of soil organic matter, and the climate, particularly rainfall or irrigation levels.

In sandy soils low in clay, potassium largely remains in the soil solution and can be leached below the plant root zone and potentially into the ground water. Such lighter soils, especially in high rainfall districts or under high irrigation levels, are more prone to potassium deficiencies due to this leaching effect. Heavy soils, such as clays or soils high in organic matter, are usually high in potassium. However, some can be low in potassium.



DOA WORKSHOPS

The DoA is conducting workshops in Stanley on Wednesday 14th July and Thursday 15th July. All Welcome.

Where: Argos Building
Time: 8.30a.m. start
Topics: Pasture Improvement Programme
Sheep Meat system for the Falkland Islands
Grazing Management options
Farming "what ifs" Gross Margin support package
Wool Season 2004/05 planning for warehousing; freight; core sampling etc

QFW PACKS GO TO IRELAND

Photo's courtesy of Spud Hawksworth

It must have been a bit of a shock to Spud (Chris) Hawksworth to see these Quality Falkland Wool packs on a farm in Ireland. Irish buyers you may think? Wrong! It is actually Northern Ireland wool in our old packs! If you look closely you can see the QFW stamp on the pack.

PASTURE IMPROVEMENT PROGRAMME

The Department of Agriculture presented the following paper to the FIDB in early May 2004. It details the "mode of operation" of the Pasture Improvement Programme (PIP) for the period 2004/05 through to 2007/08.

Preamble

As detailed in the Pasture Improvement Programme (PIP) mid-term review, the programme has been broadened considerably to include a greater range of on-farm works. All works remain "in-keeping" with the original goals of the project.

The programme is intended to focus on activity with clear cost/benefit advantage to individual farmers and hence also to FIG as a whole. It also recognises that farms are discreet business units with unique needs and circumstances and also acknowledges that a high level of financial accountability is expected of the Department of Agriculture in managing the project's funds.

It should be understood that a critical issue in setting the project's "mode of operation", as outlined in this report, is the Department of Agriculture's inability to assume a fixed budget for the project's remaining years of operation.

It is suggested that farmer equity and opportunity for involvement be of paramount importance because of the project's unsecured budget.

It is envisaged that farm allocation be staged over the remaining four year life of the project, with involvement and subsequent progression from one common "baseline" level to the next dependent on both funding and satisfactory completion of project conditions.

Project Principles

A farm is defined as a discreet business unit with a 5-year average stocking rate in excess of 2000 Dry Sheep Equivalents

Or

A discreet business unit within an "approved" business plan that demonstrates the capacity to generate in excess of £10,000 of gross income per annum from activity in accord with the principles outlined in the PIP.

- Only one application for funding is permitted from each farm management entity or farm owner.
- Farmers will be advised of planning requirements and protocols in **July 2004**. At such time farmers wishing to be involved in the project should complete their PIP plan. A key element of the plan will be a schedule of expenditure and timing of proposed works/activity for the four years of the project. Only one plan is required for the four-year life of the project.

- Farmers may enter the PIP at any time by successfully completing the planning requirements. However it must be noted that late entrants (post 30/09/2004) will only be eligible for funding as set from the "baseline" operating during their year of entry to the PIP.
- Persons leasing land are able to apply for funding for land that satisfies all other criteria, provided they produce a "stamped" lease agreement that shows a minimum of 5 years tenure over the land from the date of application.
- Business entities that come into existence after the PIP plan lodgement date are able to take over an existing PIP if such a plan is already in place on the land they acquire. In addition they are eligible to apply for funding if a PIP programme of activity is not already in place over the discreetly identified farm.
- New business entities as defined above, are eligible to apply for funding available at the time of application and subject to the "baseline" level of allocation operating at their time of entry to the project.
- Farmers receiving funding from the PIP will be required to sign a statutory declaration detailing their intention to carry out the agreed works.
- Alterations to the approved PIP plan must be approved by the Director of Minerals & Agriculture.
- Failure to complete the agreed schedule of works will render the farm ineligible for further funding and may incur FIG action to recover funds received, at the discretion of the Director of Minerals & Agriculture.

Project Timetable

- 10th May 2004, submit PIP report to FIDB for approval.
- Late May 2004, determine budget for 2004/05 financial year.
- June 2004, advise farmers of PIP conditions for final four years, highlighting issues regarding ramifications of budget size and security,
- July 2004, newsletter to all farmers advising PIP conditions and offer of support to complete planning process. If required include strategic shed meetings.
- August, continue planning process.
- 30th September, closing date for PIP plans.
- 15th October, allocation of funding announced to participating farms.
- May (?) 2005 determine budget for 2005/06. Call for new entries into the PIP.
- June 2005, allocation of funding for 2005/06 announced to participating farms.
- May (?) 2006, determine budget for 2006/07. Call for new entries into the PIP.
- June 2006, allocation of funding for 2006/07.

- May (?) 2007, determine budget for 2007/08. Call for new entries into the PIP.
- June 2007, allocation of funding for 2007/08 announced to participating farms.

PIP Planning Process, Plan Requirements

- DoA mapping layers will be used as the starting point for PIP plans.
- Plan to show proposed works, budget for works and timelines for proposed works.
- Plan to detail the projected production and financial impact of the proposed works on the farm.
- DoA "Ten Year Farming History" sheets to provide current data on farm productivity and overall Falkland Islands productivity levels.
- DoA GM decision support package will assist in quantifying the economic impact of the proposed works on the farm.
- To qualify for funding consideration, farm PIP plans will need to demonstrate at least £3.00 potential return (over a 10-year time frame) for every £1.00 of funding sought.

Annual Review of Works

- All existing works that have been funded by the PIP will be audited to determine the status of every farm in respect of :-

  I. Funds spent on farm to date.

  II. Status of the works
  - condition
  - management

- At the end of each financial year, all works funded by the PIP will be inspected to ensure compliance with project conditions.
- At any time farmers may request a review of their PIP plan to ensure opportunities are not lost to increase return from FIG investment.

  Any changes made to the initial PIP plan must be authorised by the Director of Minerals & Agriculture.

Annual Funding

- As stated earlier, it is not possible to allocate PIP funds to all farms (satisfying project criteria) on a set allocation per farm basis due to the project's unsecured budget.
- It is proposed that all farms satisfying project criteria (as outlined previously) be allocated funds to establish equity between farms, as far as possible, and secondly to maintain equity between farm allocations over the projects life.

- It should be clearly noted that farms ("new" and "old") entering the PIP scheme after the 2004 plan closing date will be eligible for funding commencing at the baseline level for the year of application, not that existing in 2004.

  It should also be noted that the need to establish equity between farms regarding project expenditure, will most likely cause a cessation of funding (temporary for some, permanent for others) to those farms who have already received considerable funding from the project.

  The following scenario has been used to illustrate the proposed funding process:-

Assumptions

I. 2004/2005 Budget £300,000
II. £51,000 retained for Pool Machinery R & M and project support
III. £249,000 available for allocation
IV. 70 farms completed PIP planning process with satisfactory level of cost/benefit return.

Process

- The £249,000 would be progressively offered to the farms with the lowest level of existing expenditure to bring all participating farms up to the highest possible level of overall project allocation permitted by the budget of that year.
- To illustrate the mechanics of PIP fund allocation, the following could occur; 45 farms receive £5,000 (assumed that the 45 farms have not received any funding from the PIP to date. 6 farms receive £4,000 (assumed that they have received £1,000 worth of PIP funding in the past) and the remaining 19 participating farms nil funding during the 2004/05 financial year (have received more than £5,000 worth of PIP funded work in the past). As follows:-

No. Farms	Allocation/farm	Total Funding
45	£5,000	£225,000
6	£4,000	£24,000
19	NIL	NIL
	Funding Allocation	£249,000

- In the next year (2005/06 financial year), funding permitted; farm allocation would start at the **baseline of £5,000** and progress upwards until the budget is exhausted.
- The same process would be repeated in the project's two final years, obviously with a new baseline set each year and also subject to funding provided through the FIG budgetary process.
- It is proposed that new entities (as strictly defined earlier) commence at the funding level of the baseline point in their year of entry. As an example, a new entry into the programme in the 2005/06 financial year would **commence at the assumed prior funding level of £5,000** in the above example.

- It is clear that quite small allocations may be made to eligible farms with an existing history of involvement in the PIP. It is also probable that such allocations will be insufficient to fund the year's schedule of activity. In such circumstances it is proposed that funding from that year's budget be held-over for use in the next financial year. (For the exclusive use by the particular farm). However it should be noted that no guarantee of funding could be given by the DoA for the next year.

- It is also clear that many farm owners will need to greatly increase the management of expenditure on PIP funded activity on their farms. Once the level of expenditure on approved works reaches the level of allocation for the farm in any particular year, DoA funding must cease and further works will need to be at farm expense.

Anyone requiring assistance with any aspect of the Pasture Improvement Programme is urged to contact Neil Judd at the DoA.

WOOL PRESS QUESTIONNAIRE RESULTS

Thank you to everyone who sent back their questionnaires. We had a great response and it helps us understand how valuable the Wool Press is. There were many comments on how the Wool Press could be improved. It is hoped to introduce some of these ideas over the coming months. Following are the survey questions and responses received.

The Wool Press Questionnaire

What is your interest in the Wool Press?
57% Farm owner/manager
10% Farm worker
13% Camp resident
3% Stanley resident
17% Other

On a scale of 1-5, do you find the Wool Press useful?
0% 1 very poor
3% 2 poor
11% 3 moderate
56% 4 useful
30% 5 very useful

How often would you like the Wool Press to come out?
88% Every month
8% Every two months
4% Other
If other, please specify ...**(Quarterly)**.....

Do you think the Wool Press has enough pages/articles in it?
44% Could have more pages & articles
0% Could have less pages/articles
56% About right

How do you feel about the mix of articles/language in the Wool Press?
75% Good mix of technical/general information
0% Too much general information
25% Too much technical information
0% Other

Do you enjoy reading outside articles e.g. articles from FIMCO, FIDC, Conservation, and Camp Education or from other farmer's etc?
100% Yes
0% No

How do you feel about the content of the Wool Press?
48% Needs greater mix of DoA & articles from others
4% Needs fewer articles from "outside"
48% As is fine

In your family, who reads the Wool Press?
31% The husband/father
28% The wife/mother
2% The children
39% All the family

In your opinion, is there anything else that could be improved to make The Wool Press more interesting and beneficial to you, the reader?

- ✓ **Vet's do's & don'ts**
- ✓ **ET & AI websites**
- ✓ **DoA products for sale**
- ✓ **Cartoons**
- ✓ **What farmers have been up to**
- ✓ **GAP student experiences**
- ✓ **Recipes**
- ✓ **Impact of Roads**
- ✓ **Abattoir Updates**
- ✓ **Articles/tips from other magazines**
- ✓ **Articles from staff and what they do**
- ✓ **More up to date reports**

FARMERS WEEK

Farmer's week will be held from Monday 12th to Friday 16th July this year. Do you have an issue you want to discuss with a member of Government, Councillors or a private company? Well now is your chance! This is **YOUR** week so let Leeann know so she can arrange it. Contact Leeann at home on 22131; fax 22660 or e-mail rba@horizon.co.fk. Don't leave it too long.

DANCING DUCK

A man walks into a bar with a metal box under one arm and a duck under the other. The man walks up to the bar and asks the bartender, "If you give me a free bottle of beer I'll show you my dancing duck." The barman is surprised, but gives the guy a bud and asks the bloke to show him the duck dancing. So the guy puts the metal box on the bar, and stands the duck on top of it. A few seconds later the duck starts to jump around, as if he's doing an Irish jig.

Everyone in the bar is now watching this duck dancing, and the barman offers the guy £50 for the duck and the box. The bloke accepts, and the pub is filled day and night for 3 days with people watching the amazing dancing duck.

So 3 days after he sold the barman the duck, the guy walks back into the pub and sees his duck dancing on the box on top of the bar. The barman sees the guy and offers him a bottle of bud on the house. As he gives the guy the bud, the barman asks, "Could you tell me how you stop the duck from dancing on top of the box?" The man replies, "Oh that's easy, you just take the hot coals out."

USEFULL WEBSITES

www.agsites.net
www.sporthorse-breeder.com
www.britbreed.co.uk
www.equiworld.net
www.ruralni.gov.uk
www.paragonvet.com

Bucket Feed System Makes Orphans Pay

Source: Farmers Weekly

Rearing orphan lambs can be a time-consuming and costly business and often lambs fail to thrive as well as their naturally reared counterparts. But a simple lamb-rearing system has helped one Bedfordshire family partnership to improve lamb performance at the same time as cutting the hours required to rear orphans.

It was always difficult to ensure lambs received adequate milk when lambing was in full swing, says Wilden-based Kevin Morgan-Jones. Buildings are split across a main road and orphan lambs are reared about one mile away from the main lambing shed.

"Orphan lambs were often the first job done in the morning and the last at night. But to really thrive they need several small feeds rather than two large ones."

Older Lamb
Mr Morgan-Jones, who farms with his wife Judy, says other problems occurred when trying to bring older lambs back in from fields to take a bottle. "There are always a few ewes that fail to rear their lambs after they're turned out. But these lambs are sometimes too big to set on to another ewe, so they become long-term orphans.

Introducing a lambing rearing bucket made by Volac has allowed Mr & Mrs Morgan-Jones to rear lambs more effectively, with less time and more consistency.

"Lambs are quick to take to the bucket and once they're used to it they help themselves to milk whenever they want it."

The main problems with feeding lambs twice a day is that they become pot-bellied, says Mrs Morgan-Jones. "This reduces the efficiency of the gut. There's no way lambs can cope with between 500 and 750ml in a feed. But with this system they can have many little feeds, making a much more natural system."

While improved lamb performance is one benefit of the ewe 2 lamb bucket; time savings are definitely the main plus, reckons Mr Morgan-Jones. "We used to spend up to two hours a day feeding lambs. Mixing milk and washing out bottles is the last thing anyone wants after a long day lambing. With this system, washing out the bucket and mixing milk only takes about thirty minutes a day."

The system comprises two buckets, one inside the other. The outer bucket contains a reservoir of water, which is kept warm by a heating element. This warm water then acts as an insulation for the milk, which is contained in the inner bucket.

Milk Supply
Milk is supplied via tubing to a mini-suckler unit, consisting of two teats with non-return valves. This allows the bucket to be outside the pen. "Keeping milk warm ensures lambs are keen to suck, as it is more natural."

Orphan lambs from the partnership's 460 ewes – normally the spare lamb of triplets or twins when a ewe has insufficient milk to rear all of her litter – are put on the bucket at about 24 hours old. "We try to set these lambs off on to other ewes first, but when this proves impossible we put them on the bucket. We leave them at least 24 hours to ensure they receive enough colostrum. And they need to be strong enough to fight for access to one of the teats."

The Morgan-Jounces say lambs take to the system after about 24 hours and within a week or so are taking about 1.5 litres of milk. "We start offering lambs creep feed after a couple of weeks and wean them off milk at six to eight weeks. Once weaned, orphans are kept in a separate group and offered a little creep feed to ensure they continue to grow. We could put them back with the main flock, but we don't creep-feed the rest of the lambs, so they may perform less well. We can also keep a closer eye on them in a small group and tackle any health problem easily."

With lambs taking more milk than they would have done previously, Mr Morgan-Jones admits they are buying more milk powder. "But this is more than made up for by improved lamb growth. At weaning they are a similar weight to other lambs of the same age and they finish just as quickly."

And improved lamb growth is paramount to the system at Blacklands Farm, with most lambs sold direct to the public through farmers' markets or a roadside van. "About 90% of our stock are sold this way and it takes up about 30% of my time," says Mr Morgan-Jones.

This make efficient use of time and resources essential, but direct selling has made a huge difference to the farm's viability, he adds.

FARMERS WEEK MONDAY 12TH JULY TO FRIDAY 16TH JULY

Monday – RBA day
Tuesday – RBA day
Wednesday – DoA day (ALL WELCOME)
Thursday – DoA Day (All Welcome)
Friday – RBA day

FARMING FOR PROFIT IN THE FALKLAND ISLANDS

'GRAZING FOR PROFIT'

After a successful 3-day refresher course for farmers who had attended 'Grazing for Profit' previously, the Department of Agriculture plans to run more 3-day courses aimed at people attending for the first time. However, they can also be used as refreshers for those who couldn't attend the last one.

The first will be in **Stanley** on the 18th, 19th and 20th August.
The second will be at **Fox Bay** on 24th, 25th and 26th August.

I would be grateful if interested people could send me written confirmation of their intention to attend stating their preferred venue (mmcleod@doa.gov.fk fax:27352). Alternatively, if you want to know more about it before taking that step, just pick up the phone and ring Mandy on 27355. Attendance on the course is free and the Department of Agriculture will reimburse 50% of any FIGAS flights incurred. Interested persons will be sent more details closer to the time.

These are some of the subjects the course will cover: Grazing Management principles, systems and tools. Breeding principles. Stock Management and Financial Management. Efficiency and Effectiveness and ultimately….

The relationship between plants, the livestock, the ecosystem and profit.

PUMPKIN STEW

Ingredients

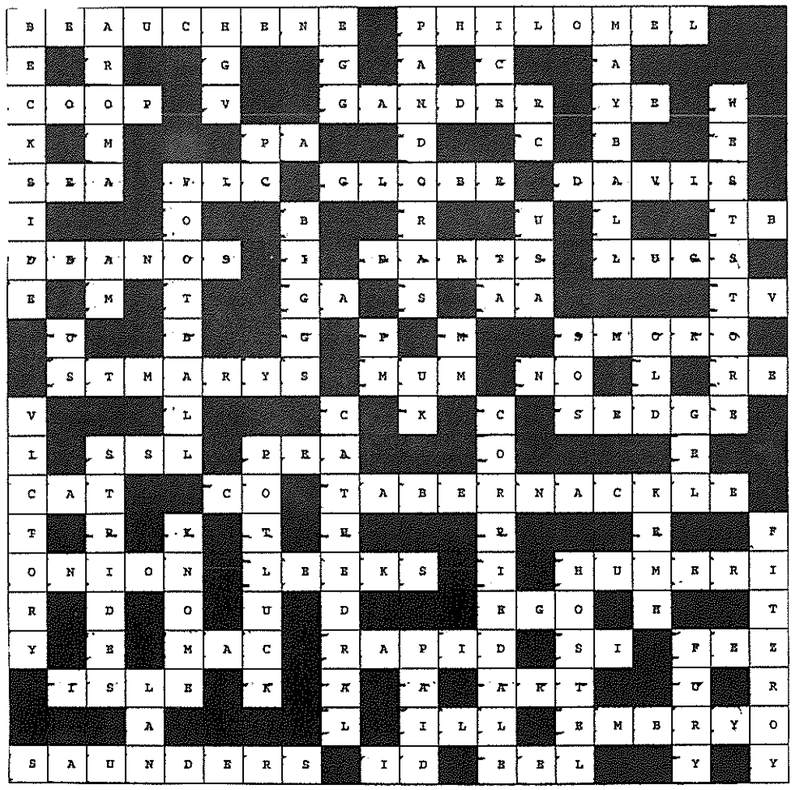
Onion
Parsley
Mixed herbs & rosemary
Salt & pepper
Bacon or pork spare rib pieces
Pumpkin
Potatoes

Method

- ✓ Chop onion and parsley and fry in a pot with mixed herbs, salt, pepper and a sprinkling of rosemary
- ✓ Add bacon or spare rib pieces and cook for a few minutes
- ✓ Add pumpkin and cook until it is quite mashy. Do not add water.
- ✓ Once pumpkin is cooked add potatoes and cook until they are soft.

Tastes great served with any hot or cold meat.

LAST MONTHS CROSSWORD SOLUTION



The Wool Press

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All the regular features and more!

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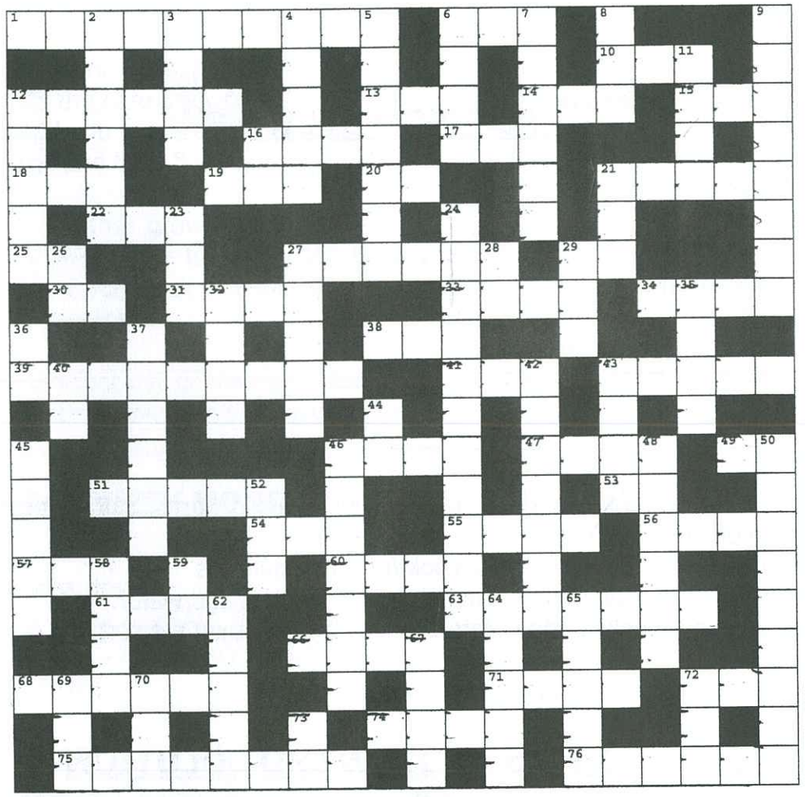


ACROSS

1. A DAY IN JUNE
6. ALSO KNOWN AS
10. WHERE SUE & GORDON WORK
12. MAN WHO IS ALWAYS IN YOUR LIFE
13. DOVE OR PIGEONS CALL
14. ANIMAL DOCTOR
15. A WING ON A FISH
16. EARTH IN THE GARDEN
17. TO TELL A FIB
18. RODNEY & CAROL
19. TO PRETEND
20. LOVABLE 80'S ALIEN
21. HORSES HEAD COLLAR
22. FARMERS ASSOCIATION
25. 14TH LETTER IN GREEK ALPHABET
27. MARKET ?
29. CAT SCAN
30. DISTRICT OF COLUMBIA
31. VOICE BOUNCES BACK
33. KTV RADIO ?
34. LAMB WITH SAUCE
38. HEN PRODUCT
39. SHOW FROM 7-9AM
41. EXCLAMATION OF DISGUST
43. DIED A ?
46. BABY REINDEER
47. BABY'S BISCUIT
49. WHAT YOU PUT IN A PAPER FOR YOUR BUSINESS
51. BROWN ? WATER
53. CHIEF EXECUTIVE
54. WE CANNOT SEE, FEEL, HEAR OR TASTE IT
55. SOME HAVE A BIG ONES
56. A LOT OF NOISE
57. EXUBERANT VIGOUR & ENERGY
60. CAT CALL
61. POEM RECOUNTING DEEDS OF LEGENDARY HERO
63. SHEARERS JEANS
66. SHIPS WORKERS
68. BODY ART
71. TO GO ON ABOUT WHAT YOU HAVE
72. CLUMP OF PEAT
74. DR EVIL STOLE THIS FROM AUSTIN
75. BRIDAL
76. 1ST NAME OF AN EQUINE DENTIST

DOWN

2. WHAT SOME MAKE FROM COWS MILK
3. A STINK
4. FOOL
5. VERY DESTRUCTIVE BOMB
6. ABSENT WITHOUT LEAVE
7. CHRISTMAS CALENDER
8. BACON LETTUCE & TOMATO SANDWICH
9. 1982
11. RADIO 1
12. POPULAR BRAND OF CAT FOOD
16. CHEMICAL SYMBOL FOR SCANDIUM
21. GOES IN HORSES MOUTH
23. USED TO CHOP PEAT
24. GET IT EVERY FRIDAY (7,4)
26. IDENTIFICATION
27. UPLAND
28. ANSWER IS NOT YES
29. TAXI
32. PLACE TO HAVE TEA, CAKES & SNACKS
35. PLACE WHERE THERE'S BEEN FIGHTING
36. TUBERCULOSIS
37. A PALE FLOWER
40. REFERENCE
42. STANLEY SEA FRONT
43. FLAT CIRCULAR PLATE
44. MOTHER, MUM, MUMMY...
45. MASHED POTATOES AND
46. A WEEK IN JULY
48. ISLANDER
50. MAKES GOOD JAM
52. DOGS DO THIS
58. INSPECTOR MATT
59. FRIENDLY GREETING
62. OFTEN SHEARERS BREAKFAST
64. FORBIDDEN SUBJECT
65. INCENSED WITH ANGER
67. WHAT COMES OFF SHEEP
69. NOAH HAD ONE
70. OF ICECREAM
72. SLEIGHING ON FOOT
73. COMPACT DISK

EDITORIAL

Dear Reader,

Senior staff members within the Department are taking it in turns to write the editorial comments and the editorial for this month's Wool Press has fallen to me. As this is my first attempt I hope you'll make allowances for any deficiencies in the content.

Yet again Priscilla seems to have collected together a wide range of articles for your interest and entertainment – not always an easy task when so many staff members are busy doing their daily tasks, sorting out budgets, preparing presentations for Farmers' Week and generally sorting things out at the end of one financial year and the start of a new one.

On page 3 you'll be able to find out more about the new Agricultural Advisor, Damien O'Sullivan. No doubt many of you will have a chance to meet him during Farmers' Week. On the same page there is an excellent article about Hydatid Disease, obviously written by someone with great literary potential and a very high opinion of himself! Further on there are several articles extracted from various UK and Australian publications, all of which have relevance to the farming situation in the Falkland Islands. Our very own Suzanne Halfacre tells you what she's been up to on page 9 and this is followed by more news from the Australian outback courtesy of Sam Davies. There is another very interesting article by Niilo Gobius on page 13 and a more light-hearted contribution from Dan Whitney on page 15. As a vet I KNOW just how difficult it can be to give a cat a pill – you joke about it afterwards but at the time it is no laughing matter! For those of you who have been here a little longer you might be interested to see what my erstwhile colleague and former Director of Agriculture, Bob Reid, is currently up to. It looks as though his company, Tas Global Seeds, may have developed a very promising new clover cultivar called Arrowtas which has potential in the drier parts of Tasmania, mainland Australia and presumably, in other drier parts of the world. I assume the photo in the article is a recent one and, if so, Bob appears to be in very good health as he presents a Tasmanian farmer with a bowl of what might well be the afore-mentioned Arrowtas clover.

I'm not sure whether you'll receive this publication before, during or after Farmers' Week. Whatever the case I hope you really enjoy your time in Stanley on the social, business and educational fronts. I look forward to catching up with many of you during that week.

Stephen Pointing
Senior Veterinary Officer.

INTRODUCING DAMIEN O'SULLIVAN.

Everyone said, "Do you realise how cold it is there?" "You don't get much closer to Antarctica!" Well while the winter weather for the Falklands has so far been mild, the area we come from has had record cold temperatures of -7°C in the last week so things are not so cold here after all.

I come from a cropping and beef area in Australia 2 ½hours drive from Brisbane. Originally I was brought up on sheep properties in Victoria and Queensland. From there I went to Queensland Agricultural College and studied Stock & Meat Inspection. My first job was for the Department of Primary Industries (DPI) in Western Queensland where I worked in disease control for the sheep and cattle industries for 6 years. During this time I gained registration as a wool classer. Since then I have continued to work for DPI in a variety of roles covering use of weather information in rural industry, adoption of organic farming, drought research and policy, rural community development, AI training, native pasture monitoring and management, pasture improvement, beef and sheep husbandry.

My wife Neralie is a schoolteacher and we have four children. We are all looking forward to this major change and have been very thankful for the help people have offered from all areas to assist us settle in.

HYDATID DISEASE SITUATION IN THE FALKLANDS

Steve Pointing

Hydatid Disease Situation in the Falklands – an update and recommendations for future control. (This is a summary of an information paper provided to ExCo in June 2004).

Background

Hydatid disease is a zoonosis that has probably been present in the Falkland Islands from the earliest introduction of sheep and sheep dogs. The normal host for the adult tapeworm (E. granulosus) is the dog and the normal intermediate host for the hydatid cyst is the sheep. The sheep picks up infective eggs from the pasture when grazing in areas in which infected dogs have defaecated; the dog picks up infective cysts from eating infected sheep offal which is either fed to it directly or scavenged from a dead sheep found in Camp. Occasionally humans can act as the intermediate host (like the sheep) with infection occurring most commonly in children who tend to be less diligent about their personal hygiene after handling infected dogs or puppies. Because the cysts often grow at a very slow rate the person may not become aware that they have been infected until many years after infection actually occurred. Most infected sheep are killed or die naturally of old age long before showing any clinical symptoms relating to the development of cysts in various body organs.

The disease has been studied in the Falkland Islands since the early 1950's when the Ajax Bay freezer works were built. At that time the infection rate in sheep was found to be about 3.3%. Since then further surveys have been carried out and the FIG has enacted various pieces of legislation in an attempt to eradicate the disease from the Islands. To date this has only been successfully achieved in New Zealand, Tasmania and Iceland. The infection rates (in sheep) in the Falkland Islands have fallen considerably since compulsory "pilling" of all dogs was introduced in the 1970's.

Brief summary of infection rates:

Early 1950's	3.3% (based on Ajax Bay findings)
Early/mid 1960's	53% (this figure seems abnormally high and should be treated with some suspicion).
1976	13%
1983	1.8%
1993	0.5%
1999	0.05%
2004	0.06% (based on abattoir figures for the 2004 export killing season; 14 positive cases in 21,858 sheep slaughtered from 6 separate properties – 3 on the East, 2 on the West, and 1 on an offshore island.)

This probably gives a fairly accurate picture of the current infection rate nationally as sheep were supplied to the abattoir from 31 farms around the Islands. With a current sheep population of almost 600,000 this would equate to approximately 380 sheep being currently infected with the disease and still living in Camp.

History of legislation.

The first piece of Falkland Island legislation connected with the control of Hydatids was introduced in 1965 (Tapeworm Eradication (Dogs) Order No 1). This was followed by the Tapeworm Eradication (Dogs) Order No 2 in 1970, which for the first time prohibited the feeding of sheep offals to dogs as well as requiring the regular worming of dogs. In 1975 a further order was introduced (Hydatids Eradication (Dogs) Order) which tightened up previous controls and increased penalties for non-compliance. The final piece of legislation enacted was the Hydatid Eradication (Dogs) Order 1981 and this is the Order that we are currently operating under.

What does the current control policy involve?

The main aim of the Hydatid Eradication (Dogs) Order 1981 is to ensure that dogs do not have access to sheep offal. By law it is forbidden to feed offal to dogs and offal from all animals slaughtered on farm has to be dispensed of in such a way that it cannot be accessed by dogs. The other main method of control is the compulsory "pilling" of all dogs within the Islands with a very effective cesticide (Droncit – praziquantel) every six weeks. This was first introduced into the Falkland Islands in 1977 and has continued to be used on a six weekly basis since that time. The worming tablets are provided free to dog owners both in Camp and in Stanley and MPA at a cost to FIG of

approximately £12,000 each year. FIG also employs a Hydatid Officer who supervises dog dosing on certain farms every 6 weeks as well as keeping an eye on the condition of camp killing facilities.

Why hasn't Hydatid Disease been eradicated yet?

That is a very good question. Theoretically the disease could be eradicated in as little as 10 years if all aspects of the eradication plan were strictly adhered to. In practice this has never happened – not in New Zealand, Tasmania, Iceland or the Falkland Islands. New Zealand declared itself provisionally free of Hydatids in 2002, 43 years after the introduction of its first Hydatids Act (1959) and 30 years after the introduction of 6 weekly worming of rural dogs. The situation in the Falklands has followed a similar pattern to that observed in New Zealand and we have now reached a VERY LOW level of infection in sheep - currently around 0.06%.

The SVO recently attended a meeting of sheep vets in the UK (Spring Meeting of the Sheep Veterinary Society, Llandudno, N. Wales. May 10-12 2004) at which much of the information in this paper was discussed. The view of those present, many of whom had considerable experience in the control of hydatidosis in Wales, was that the Falkland Islands should be very pleased with the progress made to date. They went on to say that trying to eradicate the parasite completely was a very difficult thing to do and had not been easily or rapidly achieved in any country where eradication was the "goal". They did not recommend that we change anything in our current system aiming towards eradication. They just re-emphasised the point that public awareness and education was of paramount importance in helping to achieve the desired aims.

Where do we go from here?

Again this is a very good question. We have entered a period in which the "law of diminishing returns" has come into operation. It is easy to justify Government expenditure on a disease of public health importance when the risk of catching that disease is relatively high. Justification for continued expenditure at the same level diminishes as the perceived public health risk diminishes.

The human situation with regard to Hydatid disease in the Falkland Islands.

According to the Chief Medical Officer Hydatid disease is no longer considered to be a disease of major public health concern in the Falklands. The last case of someone suffering from the disease which had been newly acquired was in the late 1970's. Since that date there has been one further case in the last 5 years but this is thought to have been due to a re-activation of a previously acquired cyst (this patient had been treated for hydatidosis when he/she was a child). A serological survey was carried out in the human population in the Falklands in the early 1990's and the results of this survey were reported to ExCo at that time.

It should be noted that the cost to FIG of treating one patient with clinical Hydatid disease would amount to several thousands of pounds.

Options for the future.

1. Continue as we are today i.e. 6 weekly dosing of all dogs in the Falkland Islands and prohibition of feeding of ruminant and pig offals (livers/lungs) to dogs. Some savings could be made by only dosing with Droncit, which is effective against the tapeworm. Currently we are dosing alternately with Drontal which also kills roundworms but this is a considerably more expensive drug than just using Droncit alone. Owners wanting round worm cover could be asked to pay for this more expensive treatment.

2. Continue with 6 weekly dosing of all farm dogs BUT reduce dosing of "pet" dogs in Stanley and MPA to every three months or every 6 months. (In New Zealand urban dogs were only ever "pilled" twice yearly). It could be made a condition that anyone from Stanley or MPA wanting to take their dog into Camp would need a certificate from the Vet Section to say that their dog had been wormed within the previous 6 weeks. A charge could be made for this worming dose and the issuing of a certificate. This would only be necessary if we moved away from a compulsory 6-week worming of "pet" dogs.

3. Reduce routine worming of all dogs to every three months (four times a year) and monitor effect on incidence of Hydatids in sheep through the abattoir.

4. Change the policy on the ban of feeding offal to dogs. The vast majority of sheep offal in the Falkland Islands is not infected with Hydatid cysts. Even the small proportion that is would be rendered safe for dog food if it were cooked or frozen prior to feeding. A new policy could allow for offal to be fed to dogs provided it had been cooked or kept frozen in a normal domestic freezer for a minimum period of one week.

(Note: there is no reason why offal, which has been subjected to meat inspection, should not be consumed by dogs with or without cooking. It is already available for human consumption via the abattoir.)

Recommendation of the SVO.

My favoured option, at this stage, would be to continue with option 1 (perhaps making some small savings by dosing only with Droncit). We have only received one good set of data from the abattoir so far and it would be sensible to review the situation again in a year's time at the end of the next export season.

The following report was produced by staff of the University of Tasmania and DPIWEI (equivalent of DoA in Tasmania) and has been reproduced in full with the permission of the authors. The article demonstrates increased annual pasture production through careful management of grazing pressure, spelling of camp and promotion of native fine grasses. (For more information contact Andrew Pollard)

MANAGEMENT OF NATURAL PASTURES FOR SUSTAINABLE PRODUCTION

Research Investigators: Dr Doug Friend (Project Leader); Paul Dolan (Technical Research Officer); Andrea Hurst (Technical Research Officer)

Funding
National Landcare Programme; Meat and Livestock Australia; The Woolmark Company.

Tasmania has extensive areas of natural (native) pastures. These pastures support Tasmania's fine and superfine merino wool industry and also have a considerable conservation value. Past management practices have caused land degradation in many areas of natural pasture.

TIAR researchers at the Mt Pleasant Laboratories in Launceston have just completed a six year study of natural pastures in the Midlands and Derwent Valley. The study aimed to develop improved management practices for natural pastures to prevent further land degradation, restore degraded areas and achieve sustainable production from these pastures.

A survey of natural pastures in the region found that overgrazing, leading to reduced cover and loss of native grasses and to increased soil erosion, was the main threat to the sustainability of natural pastures. The use of phosphatic fertilisers to improve productivity has also lead to a decline in the native grasses and weed invasion.

Research trials confirmed the importance of moderate grazing pressure in maintaining the vigour and productivity of natural pastures. Moderate grazing pressure maintains a mixed sward of productive native grasses and a diversity of associated species. Overgrazing reduces species diversity, reduces pasture production and increases bare ground, making it vulnerable to soil erosion. Utilisation rates of around 50% of net pasture production appeared to be most desirable to maintain pastures in good condition.

Compared with set stocking, annual pasture production was increased by 22% by spelling the pasture in winter, and by 47% by spelling in spring. Pasture production was reduced by 11% by increasing grazing pressure in the spring. Application of superphosphate and oversowing with subterranean clover increased pasture production by 65% or more, depending on the type of pasture and seasonal conditions. Clovers and exotic weeds contributed most to the increased production. By adjusting grazing pressure to control the growth of clover and exotic weeds, the presence of native grasses in the pastures was maintained.

Native grasses were shown to have very low seed banks in the soil, which makes them vulnerable to local extinction in the event of loss of the established plant population, e.g. through overgrazing. Where plant density of native grasses is low, spelling during the flowering and seeding period of the grasses is necessary to provide for recruitment of new plants. Guidelines for improved management of natural pastures were developed from the project, and these guidelines have been promoted through field days, industry promotion days, newsletters and the media.

Background

Native pastures occupy over ½ million hectares of private land in Tasmania. The fine and superfine merino wools for which Tasmania is famous are largely produced on these pastures. Native pastures also have considerable conservation value as habitats for native flora and fauna, and they are major components of many important river catchments. Sustainable management of these pastures ensures that their grazing value and conservation value are maintained and that adverse impacts on river catchments are minimised.

Threats to Sustainability

Loss of the valuable native grasses and soil erosion, resulting from overgrazing, are the main threats to the sustainability of native pastures. The use of superphosphate to increase production of native pastures can also result in loss of the native grasses through competition with introduced clovers and weeds. These species offer less protection to the soil than the native grasses.

Keys to Sustainable Management

Careful regulation of grazing pressure, periodic spelling, and control of competition from clovers and weeds are essential for sustainable management of native pastures.

Sub-divide to topography and aspect. Paddocks, or 'runs' need to be sub-divided into areas of relatively uniform topography and aspect in order to allow greater control of grazing pressure. Without sub-division it is difficult to avoid overgrazing of vulnerable areas such as north-facing slopes. Sub-division allows appropriate stocking rates to be used for each type of land, and can result in more stock being carried on the paddock due to better utilisation of areas previously avoided. Low-cost electric fencing is suitable for sub-division.

Use moderate grazing pressure. Native grasses are stimulated by light grazing, and can tolerate moderate grazing, but will weaken and may eventually die under continued heavy grazing. Moderate grazing pressure results in only partial defoliation of the native grasses, which allows them to maintain their growth and vigour. Moderate grazing pressure also ensures that pasture cover is maintained, which protects the soil against erosion. To avoid overgrazing do not graze to less than 500kg DM/ha or less than 70% foliage cover, i.e. a dense, leafy pasture, about 3cm high.

Match stocking rate to available feed. To achieve a moderate grazing pressure, stocking rate must be matched to the available feed. This is easier under rotational grazing systems. Setting the appropriate stocking rate under set stocking means anticipating feed supply in the late winter, when grazing pressure is likely to be the greatest. Where stock numbers are not easily adjusted in the event of a feed shortage, e.g. on large paddocks or remote areas, this means stocking for a 'hard' winter.

Spell following heavy grazing. A period of spelling following heavy grazing allows the native grasses to regain vigour through vegetative re-growth. Spelling is most effective during the main growing period of the grasses. A spelling period of three months or longer may be needed.

Spell to allow seeding of native grasses. Where plant density of native grasses is low, spelling during the flowering and seeding period of the grasses is necessary to provide for recruitment of new plants. Native grasses have low seed banks in the soil, which makes them vulnerable to local extinction in the event of plant deaths resulting from overgrazing.

Increase soil fertility slowly to maintain dominance of native grasses. Native grasses are adapted to low soil fertility conditions. They will respond to increased fertility with increased growth, but are slower to respond than introduced clovers and weeds, which can place them at a disadvantage in competing with these introduced species. If fertilisers are applied they should be used to build up fertility slowly, to allow the native grasses to respond and remain competitive. Apply superphosphate at 12kg/ha initially, and then the same rate as needed in subsequent years to achieve, and maintain, a Colwell P (phosphorous test result) of 15-20ppm.

Use strategic spelling and grazing to manage clover dominance and control weeds. The competitiveness of native grasses can be increased by grazing management. Autumn spelling (often referred to as 'deferred grazing') reduces micro-sites for germination and establishment of clover and weeds, and increases the competitive effect of the native grasses. Increased grazing pressure in the early spring helps to control the growth of clover and weeds, and reduces their competitive ability and seed set. On the other hand, to increase clover content, graze lightly in spring to promote seeding, and then use sufficient grazing pressure before the break in autumn to open up the pasture.

VETERINARY LAB TECHNICIAN
WHAT HAVE YOU BEEN UP TO SUE?

Suzanne Halfacre

My jobs in and out of the laboratory have been very varied as usual, this year. Routine sample testing has continued with Haematology, Equine Pregnancy Testing, Worm Egg Counts and Skin Examinations amongst others. I usually prepare sera for the hospital to test for Renal and Liver function etc. on their

state of the art Biochemistry machine. The hospital also tests the Fisheries and Aquaculture samples that come our way. I supervise/prepare them with help from Gordon and then forward them on to the Microbiology Laboratory.

Some sera needs to be processed and sent to the UK or New Zealand for testing for things like Rabies Antibody titre for the Pet Passport Scheme or a range of diseases re post import. Sera for Brucella ovis/abortus testing is harvested and frozen until there are enough samples to make it economically viable to test. Some of the reagents are expensive and last only a week, so it makes sense to save them up and squeeze as much as possible into a small time frame.

There have been a few tissues from the abattoir with suspected Hydatids to confirm or negate. I have visited the abattoir this year to help Steve take some tissue/urine/sera for testing in London re residue in meats after the abattoir vet left. This sampling is an EU requirement and tests random samples to a set schedule to ensure the sheep being processed are fit for human consumption. These samples are then frozen and saved up for 3-4 months. Next I have to get up early just before a plane leaves from MPA, to get them on board with little chance of them defrosting too much before they arrive at their destination. I try and double this up with collecting Liquid Nitrogen from the military. The topping up of tanks that contain all the semen for the work Nyree etc. does comes under my jurisdiction, as the vessels are stored in the laboratory.

I like to get out of the lab now and then for my sanity and have been on two farm visits. Both visits happened to be at Goose Green. The first was to test the ejaculate of vascetomised rams to make sure there were no spermatozoa present as they were going to be used as teasers. The second visit was on the last day of the Embryo Transfer programme. We had a school party and the Chief Executive with a roadshow all at the same time. It was very busy and hence enjoyable. The teamwork was a credit to everyone, DOA staff and farmers alike.

The beginning of the year sees me supervising/testing the wool samples from farmers with the help of Gordon, Paz and anybody else that might inadvertently wander my way. We test for micron and % yields, which is very labour intensive, as we follow strict guidelines set by I.W.T.O

Now that winter is here lab testing falls off a bit so I gear up for the *Brucella* testing as mentioned previously. There is also a lot of housekeeping to do such as equipment maintenance and stock control. Gordon and myself recently cleared out the chemical stores to make better use of space, as some chemicals were over 25 years old. When the lab was first set up here, British Aid sent a few reagents over as a starter kit. However not all of them are used in our present tests so there is no point hanging on to them. Let's face it, if they have not been touched for twenty-five years then I don't think they are going to be needed now (if they work at all!). I am at present researching into the most environmentally safe and cheapest way of disposal.

Being the IT representative for the department means I help people as and when any problems arise. Recently Steve and myself constructed a PowerPoint Presentation on behalf of John Longstreeth the abattoir vet. He will be presenting this at the World Health Conference as it is all about the Falkland Islands Abattoir and will help people see the meat industry here in a positive light. As I am a trained First Aider I keep an eye on the First Aid kits in the vehicles and the lab and make sure they get an overhaul about this time every year.

FARMING FOR PROFIT COURSES

There has been a change to the date of the proposed course at Fox Bay: The dates for the forthcoming 3-day events are:

Stanley	18th, 19th, 20th August
Fox Bay	7th, 8th, 9th September

Hope this hasn't inconvenienced anyone.

I will be asking for confirmation of participation straight after farmers' week so that I can start making arrangements and sending pre-course information.

HI FROM LONGREACH

Sam Davies

I never dreamed that I would get cold in Longreach in outback Queensland! Winter has arrived and the days are chilly, mum sent over my trust-worthy buffalo so I am sorted now!

Well what have I been up to since my last article? Kim and I went to Roma for a weekend and stayed at our friend Renay's property about 40 minutes from town. Her parents run commercial cattle, it was good fun. We saw some different country down there.

This week I have been learning about Mills and Bores, it is very interesting. We all had to climb up a mill; I got three quarters of the way up and freaked out! But at least I gave it go; luckily I was not the only one who was freaking out about the height!

A couple of weeks ago I was on routine and was given the job of 'feed out'. This is when you're responsible for the hay distribution to animals on and around college, and keep an eye on water and health. So I learnt how to use grabbers on a tractor to pick the bales up, it was fun! My main duties for the week were to feed the hens, collect the eggs, feed the goat bucks, does and kid goats with a supplement called copra – they are mad about it, so getting it into the trough was a challenge when I was on my own! I also had to keep an eye on the feeders to make sure enough feed was in them, this meant I had to climb on top of them and make sure I did not fall in!

I have got a part time job at the moment; I am working early mornings at a very expensive & serious stable for racehorses. My job is to muck out, feed horses and prepare feed for later in the day. I enjoy it thoroughly, and it is handy to have some extra cash. The horses are huge! Boya Arron, is one of the horses that was imported from Hong Kong, and won the owners $70,000 last year! The fella I work for is quite dedicated and serious about his G-G's!

At the end of the week it is holiday time again, coming around fast! I will stay here for a week doing a bit of work here and there, then I think Kim and I are going to head back down to Roma and see Renay. We have to be back on campus by the 12th July and then it will be the big countdown. After all these years I will be 18 on the 24th July, it falls on the next Longreach rodeo and ute muster. I suppose it will be like having my 18th over a sports week or two-nighter!

AGE INFLUENCES EWE BODY WEIGHT, FLEECE WEIGHT AND BODY CONDITION SCORE

By Niilo Gobius

The effects of ewe age on her liveweight, fleece weight and body condition score (BCS – 1 to 5) have been investigated using the data from nearly 1500 ewes from 9 camps across the Falklands over the past two years. As some flocks were pre-lamb shorn and others were shorn after weaning I have separated the analyses into the two groups.

Figure 1 shows the effects of age on pre-lamb shorn ewes while Figure 2 shows the effects of age on post-lamb shorn ewes.

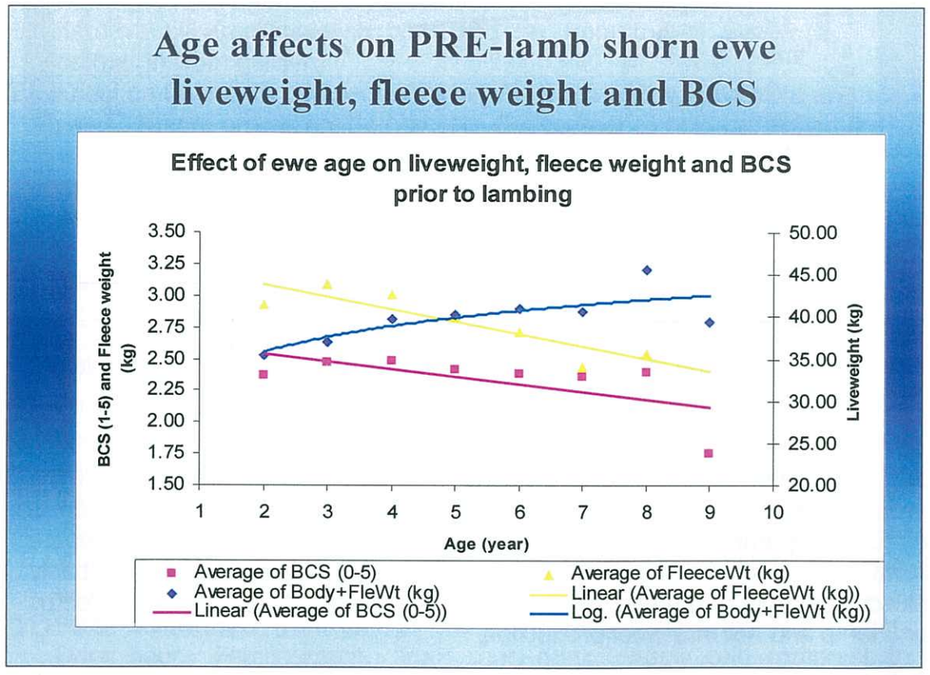


Figure 1: BCS and Fleece weight decrease with age while liveweight increases in pre-lamb shorn ewes.

With both the pre-lamb and post-lamb shorn ewes liveweight increases as the ewe matures. She appears to become heavier, even up to 8 or 9 years old. This is most likely a reason why older ewes carry and rear a lamb much more successfully in the Falklands than younger ewes. Ewes of heavier liveweight ovulate at a greater rate than lighter ewes.

Ewe BCS tends to be lower in older ewes and this is probably also linked to the fact that they have more lambs than lighter, younger ewes. In addition, if

their teeth are becoming worn they may find it more difficult to forage and therefore may not be able to select as high a quality diet as younger sheep.

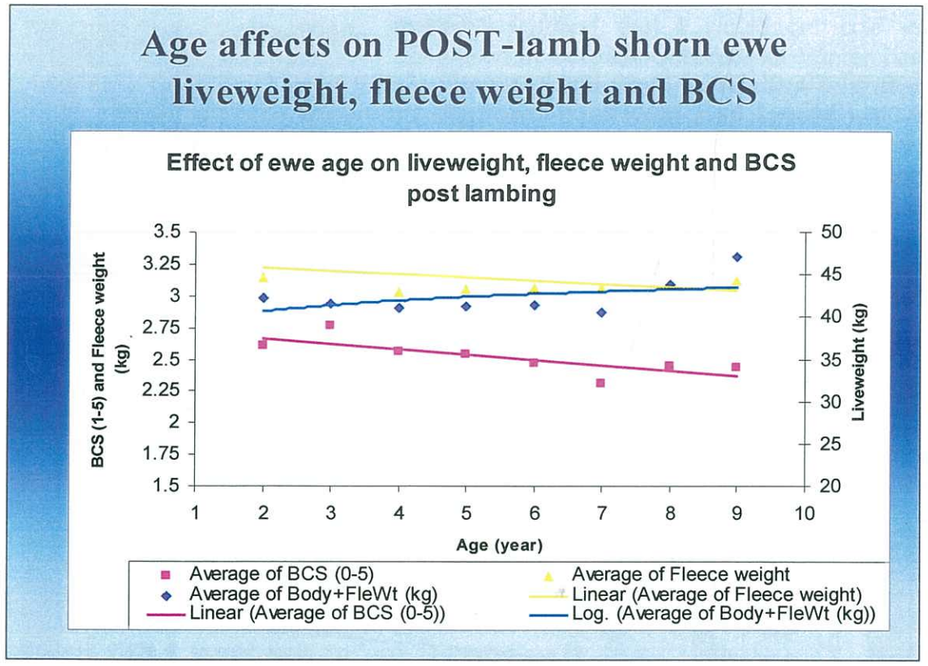


Figure 2: BCS and Fleece weight decrease with age while liveweight increases in post-lamb shorn ewes.

A greater reproductive rate and poorer diet may also be implicated in the reduction in fleece weight experienced with older ewes. Wool production is directly proportional to the amount of protein a sheep can ingest and spare towards wool production. So older ewes (which have more lambs) probably select less protein in their diet as well as divert more protein into their foetus and lamb and not into wool production.

It is interesting to note that the reduction in fleece weight with age is much more dramatic in the pre-lamb shorn group than the post-lamb shorn group. This may be a real effect, or it may due to the fact that a number of the flocks in the pre-lambing group were being 'pre-lamb' shorn for the first time. Therefore, they may have had lighter fleeces that had not grown through a spring and were only grown for 9 months. As older ewes rear more lambs than younger ewes the fleece weight differences may be exacerbated when the fleece growth period is shorter. If the latter point was the cause, the difference between pre-lamb and post lamb shorn ewes should disappear with time. It is probably a point worth monitoring.

MEDICINE FOR CATS & DOGS

Courtesy of Dan Whitney who received it by e-mail

How to Give A Cat A Pill

1) Pick up the cat and cradle it in the crook of your left arm as if holding a baby. Position right fore finger and thumb on either side of cat's mouth and gently apply pressure to cheeks while holding pill in right hand. As cat opens mouth, pop pill into mouth and swallow.
2) Retrieve pill from floor and cat from behind sofa. Cradle cat in left arm and repeat process.
3) Retrieve cat from bedroom and throw away soggy pill.
4) Take new pill from foil wrap, cradle cat in left arm, holding rear paws tightly with left hand. Force jaws open and push pill to back of mouth with right forefinger. Hold mouth shut for a count of ten.
5) Retrieve pill from goldfish bowl and cat from top of wardrobe. Call partner in from garden.
6) Kneel on floor with cat wedged firmly between knees, hold front and rear paws. Ignore growls emitted by cat. Get partner to hold cat's head firmly with one hand while forcing wooden ruler into mouth. Drop pill down ruler and rub cat's throat vigorously.
7) Retrieve cat from curtain rail, get another pill from foil wrap. Make note to buy new ruler and repair curtains. Carefully sweep shattered figurines and vases from hearth and set to one side for gluing later.
8) Wrap cat in a large towel and get partner to lie on cat with cat's head just visible from below armpit. Put pill in end of a drinking straw; force cat's mouth open with pencil and blow down straw.
9) Check label to make sure pill is not harmful to humans, drink a can of beer to take away the taste. Apply Band-Aid to partner's forearm and remove blood from the carpet with soap and water.
10) Retrieve cat from neighbour's shed. Get another pill. Open another beer. Place cat in cupboard and close door onto neck, so as to leave the head showing. Force mouth open with dessert spoon. Flick pill down throat with elastic band.
11) Fetch screwdriver from garage and put cupboard door back on hinges. Drink beer. Fetch scotch. Pour shot, drink. Apply cold compress to cheek and check date of last tetanus shot. Apply whisky compress to cheek to disinfect. Toss back another shot. Throw t-shirt away and fetch new one from bedroom.
12) Ring Fire Brigade to retrieve the cat from tree across the road. Apologise to neighbour who crashed into fence while swerving to avoid cat. Take last pill from foil wrap.
13) Tie the cat's front paws to rear paws with garden twine and bind tightly to leg of the dining table. Find heavy pruning gloves from shed. Push pill into mouth followed by large piece of raw fish. Be rough about it. Hold head vertical and pour 2 pints of water down cat's throat to wash down pill.

14) Consume remainder of scotch. Get partner to drive you to casualty, sit quietly while doctor stitches fingers and forearm and removes pill from your eye. Call furniture shop on way home to order a new table.
15) Arrange for RSPCA to collect the mutant cat from hell and ring local pet shop to see whether they have any hamsters.

How to Give A Dog A Pill
1) Wrap it in bacon.

RAINFALL AND WEATHER RECORDS

The Dept of Agriculture here in Stanley is trying to consolidate weather records for the islands. Over the years a lot of records have been collected but we would like to complete the records and bring them up to date. We have a list of rainfall records below that are currently at the office. If you are able to help with any of the missing records or have records that are earlier than those mentioned we would like to hear from you.

Location	Time
Chartres	1980 to 1986
Fitzroy	1948 to 1987
Fox Bay east	1949 to 1965
Hill cove	1956 to 1964
Pebble	1949 to 1957
Salvador	1982 to 1986
San Carlos	1952 to 1954
West Point	1953 to 1979
Darwin	1948 to 1962
North Arm	1948 to 1962
Port Howard	1949 to 1965
Stanley	1923 to 1987

If you have any records that can add to the above list including temperature, soil temperature and wind readings please contact Priscilla or Damien at the DoA. If records can be completed we will then send them out, with a statistical analysis of the records, to any contributors.

We realise that some of these records have already been collected, but unfortunately as they date back years, some have been misplaced before they were computerised.

FOR SALE FROM MOSS SIDE:

Three bull calves all 7 months old. Details below:

Angus ET Bull.
Tag No. 3 Sire: Unset of Te Kupe
Birth Weight: 38kgs;
Date of Birth: 21st November 2003;
Weight @ 22nd June 2004: 241kgs

Angus ET Bull
Tag No. 4 Sire: Unset of Te Kupe
Birth Weight: 32kgs
Date of Birth: 10th November 2003
Weight @ 22nd June 2004: 246kgs

Murray Grey/Charolais Cross ET Bull
Tag No. 2
Birth Weight: 45kgs
Date of Birth: 17th November 2003
Weight @ 22nd June 2004: 247kgs

These animals have had lots of handling so are tame. Please send tenders for bids above £160 to Donna Minnell. Fax: 31129
E-mail: minnell@horizon.co.fk
The closing date for bids is Friday 13th August 2004.
If you would like to see the bulls please phone or fax to arrange an appointment.

SEED MEETS FEED NEED

Source: Tasmanian Country

If you've ever wondered what Bob Reid (former Director of Agriculture) is up to these days, take a look at the article below. The newspaper article was sent to me by Cameron Bell, who I'm sure you'll remember was a vet here a few years ago.

A new clover cultivar could boost Tasmania's dryland pasture productivity by as much as 20%.

The Arrowtas clover cultivar is being bulked up for commercial release by local company Tas Global Seeds, operating in partnership with the Tasmanian Institute of Agricultural Research and the Department of Primary Industries, Water and Environment.

Commercial seed should be available from next year. It's sale is subject to an agreement that will funnel royalties back to TIAR and DPIWE to help related research projects, which have long been under-funded.

Since the mid 1980's, Global Seeds director Bob Reid, formerly with DPIWE, has been examining pasture cultivars collected around the world for potential to boost Tasmanian pasture productivity.

Mr Reid said Arrowtas had been a once-in-a-lifetime discovery, with potential to transform the state's dryland farms. He expects it to develop into a multi-million-dollar industry, with sales in Tasmania and interstate.

Global Seeds has as many as 30 other Tasmanian adapted cultivars in the pipeline. Arrowtas promises to ease farmers' dependence on rain, which must fall at appropriate intervals for pastures to continue supplying quality feed in summer and other dry times.

Arrowtas is an annual arrowleaf clover. Unlike most annuals, it has a deep taproot, capable of dragging water from lower down the soil profile than most pasture plants can do. Mr Reid said such an ability could extend the plant's growing season by as long as five or six weeks. Trials have shown that after all other pasture plants had died of thirst Arrowtas was still green.

It is also among the latest flowering clover cultivars, which means it continues growing until late in the season. Arrowtas is an upright plant that can be grown to a metre high, then offered to stock as a living crop. "It's high-quality feed, not just fibre going down an animal's neck," Mr Reid said.

Mr Reid said, for best results, the clover could be grazed through winter and spring until the end of October, before removing stock to allow the clover to shoot up and become a living hay crop, to be fed to stock in January-February.

"It can be still fairly green at that stage," he said. Mr Reid said Arrowtas also boasted good seed production, with hard seed, meaning the seed could take as long as three years to germinate, enabling the annual cultivar to persist for multiple seasons. He said Arrowtas' deep roots also helped keep water tables down, for the prevention of salt and water-logging problems.

The following article has been reproduced in full, with the permission of author Mr S.A.S Douglas and the "Wool Record" (May 2004.) The article summarises a presentation given by Mr Steven Read to an Australian Wool Industry conference. The article provides interesting comments on wool marketing and also on demand for wool of fibre diameter relevant to Falkland Islands' farmers. (For more information contact Neil Judd)

NEED TO TAILOR SUPPLIES TO MATCH WORLD DEMAND

The Australian wool industry has to become "demand driven not supply driven," Mr Steven Read, General Manager-Wool, Elders Ltd., told the ABARE Outlook Conference 2004 held in Australia in March. "With the stockpile gone, wool is now in an era where true demand is being reflected in the price for wool received by Australian producers. As an industry we now need to focus on issues that will influence demand and endeavour to tailor supply accordingly," Mr Read said.

He continued: "The current auction system, as efficient as it is, is primarily tailored and adapted to servicing a supply-driven industry. If we believe the wool industry was to become demand-driven, one would question whether this system could be improved upon.

"Today we have a shorter pipeline that is now showing signs of being reactive to demand and a new route to market that is more focused on processing in Asia than traditional wool-processing regions such as Europe.

Given these changes, it is the view of Elders that it should be possible to now start to try and link demand to supply and in doing so create opportunities for wool to pass through the supply chain is a more efficient manner.

"Benefits are obvious and numerous but may well include the more logical linking of pricing between raw wool and consumer products, which would reduce volatility."

Mr Read noted that the matching of supply to demand would lead to the development of forward physical contracts of wool prior to shearing between growers and processors and so on down the supply chain. He said that to recognise the importance of demand, the industry should not look simply at price movements identified by the AWEX EMI.

Demand information was based broadly into three groups: fine (19.5 microns and finer); medium (22 microns mid-point); and coarse (26 microns and coarser). He reviewed each of these groups in turn.

Fine Wool

Fine-wool production, he pointed out, has continued to increase throughout the 14 years global wool production has declined with the exception of the previous drought-affected season.

There has been increasing demand for fine wool over the past decade (1991-2003) both in volume (62%) and value (104%) terms. Australian fine wool is the world's fastest growing luxury fibre.

Fine-wool consumer products include men's wear, women's wear and knitwear. The key drivers and prospects for fine wool are economic and income growth in the major consumer countries, consumer preferences, fabric design and fashion trends. Private consumption growth in key apparel markets is looking positive.

In summary, Elders saw opportunities for fine wool in luxury apparel in key markets such as the United States, Europe and Korea over the next two to five years. Product improvements would include appearance, crease resistance, easy-care, softness, lightweight and natural comfort based on consumer demands for a premium luxury product.

Medium Wool

Mr Read said medium-wool production had continued to decrease in line with decline in global production. There had been decreasing demand for medium wool over the past decade in volume (66%) and value (46%).

Consumer end-use for medium wool included men's wear, women's wear, knitwear and interior textiles. Medium wools had an extensive use in the lower price point garments and very often in blends. Prices of competing fibres were a key issue.

Prospects and opportunities for medium wool would be influenced by the intense price-based competition from other fibres, continuing consumer interest in natural fibres, and deflation in an environment for clothing.

In summary, Elders expected modest recovery in global economic conditions in major wool-consuming countries for medium wools in the next two to five years. This should support demand for medium-micron wool in China and potential growth in emerging markets such as India and Eastern Europe, although these were typically price-sensitive markets.

Product innovation and developments include new blends with cotton and newly developed higher priced synthetic fibres. New product applications in interior textiles, particularly upholstery and rugs, could develop new consumer markets and added fibre and product attributes such as easy-care and soft lustre would assist medium wool to create new consumer demand.

Coarse Wool

Mr Read said coarse wools represented the smaller segment in the Australian wool clip and were often regarded as a by-product of sheep produced for

meat. He said there had been decreasing demand for coarse wool over the past decade, both in volume (67%) and value (43%) terms.

Coarse-wool consumer products included interior textiles, men and women's jackets and coats, hand-knitting and military knitwear.

Key drivers for the prospects of coarse wool were: economic growth in consuming countries; price attributes of competing fibres/materials; home ownership and lifestyle trends. Increased home ownership in China and Eastern Europe was seen as a very positive development.

The use of wool upholstery in public transport was another encouraging development, while the trend towards sport's and outdoor clothing also favoured wool. Bedding remained a dominant area for coarse wools and, with a growing awareness of natural fibres, this trend would continue. Commercial applications such as upholstery for offices and aged care facilities offered further opportunities.

In summary, Elders saw good prospects for coarse wool, provided there was a modest recovery in the global economy and in key wool-consuming countries.

Mr Read is currently President of the Australian Council of Wool Exporters and a Director of AWTA Ltd. and the Australian Sheep Industry Co-operative Research Centre.

OVERSOWN CLOVER CUTS INPUT COSTS

Source: Farmers Weekly

Introducing clover into an existing grass sward can be tricky. But oversowing grass with white clover after harrowing has reduced reliance on artificial fertilisers on one Cheshire organic dairy unit.

The switch to organic production in 2000 was the trigger that persuaded Peter Willis to oversow 48ha (120 acres) of grass with white clover at Mouldsworth Hall, Chester. He says meticulous preparation and good grazing management are the keys to successful establishment. "The first step was to test every field for soil pH. Levels were brought to about 6.5 using lime where necessary on the mainly medium loam soil."

Next, two complementary white clover varieties were chosen, with help from seed adviser Steve Murray. "Alice was selected for its erect, bold growth habit and large leaves, while Merwi was picked for its ability to spread itself out over the sward," explains Mr Wills.

Before broadcasting clover seed, an Einbock harrow was used to set grass back, creating a shallow section of loose soil and giving seeds maximum access to light. Seed rate was 0.4-0.8kg/ha (1-2kg/acre). "Oversowing followed first cut silage, to coincide with rapid growth and moisture

availability. This also reduced competition from the existing 2-5 year perennial ryegrass leys." Grazing of the 220-cow black and white herd was also adjusted, to allow clover to become firmly established. "After clover was sown I used rotational grazing at a normal stocking density on a fortnightly rotation," says Mr Willis. "The grazing programme was designed to keep grass down so clover could flourish in the early stages."

He says the growth pattern of white clover means losing a month at either end of the season, compared with grass. Of the 48.5ha (120 acres) oversown, 36.4ha (90 acres) took well, but clover failed to thrive on the rest. "That was because it was not grazed hard enough and the existing grass species crowded out the newly sown plants," he believes. It takes at least a year before the white clover's nitrogen fixing abilities make a significant contribution, says Mr Willis. Since his initial attempt at oversowing, clover has been broadcast on a further 8ha (20 acres) and the rest of the 123ha (305 acres) farm has been reseeded with a grass/white clover mix.

"Rather than a total reseed, oversowing was a cheaper solution to introduce nitrogen without using chemical fertiliser. But I could only justify such a large area because of my decision to convert to organic," says Mr Willis. "Clover is so aggressive that it competes with grass. In future, reseeding decisions will have to consider wether there is now too much clover. The unexpected, but important benefit has been that cows graze leys down much better than they did before."

FEWER FROSTS, LESS RAINFALL

Source: Farming Ahead

Australia could become 0.4-2°C warmer with 10-50% more summer days higher than 35°C by 2030, according to a recent CSIRO analysis.

Researchers from CSIRO's Atmospheric Research division analysed climate change projections from nine models.

The analysis suggests climate change will lead to 20-80% fewer frosts and up to 15% less rainfall in southern and eastern Australia by 2030, especially during winter and spring. Strategies to adapt to climate change include water-saving methods through restrictions and recycling, breeding and selection of heat and drought tolerant crops, adjusting cropping calendars to take advantage of a longer frost-free period and providing more shade and water for grazing stock.

For more information visit the website at:
www.dar.csiro.au/impacts/future.html

SALMON & PASTA MORNAY

Ingredients

400g small shell pasta
30g butter
6 spring onions
2 cloves garlic
1 tblsp plain flour
1 cup milk
1 cup sour cream
1 tblsp lemon juice
425g can salmon
½ cup parsley
salt & pepper

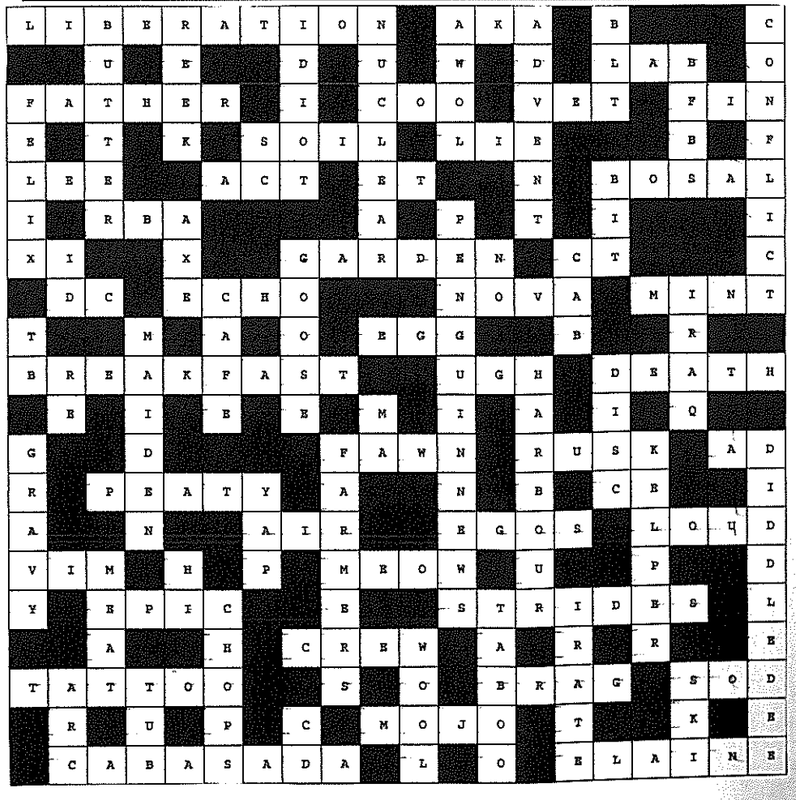
Method

- ✓ Cook pasta
- ✓ Fry onion & garlic then add the flour and stir for 1 minute
- ✓ Combine milk, cream & lemon juice
- ✓ Gradually add to onion mixture and bring to the boil
- ✓ Add salmon & parsley
- ✓ Add pasta & season with salt & pepper

- ❖ Tuna can be used instead of salmon

- ❖ 1 tsp of mustard can be added to the sauce

SOLUTION TO LAST MONTH'S CROSSWORD



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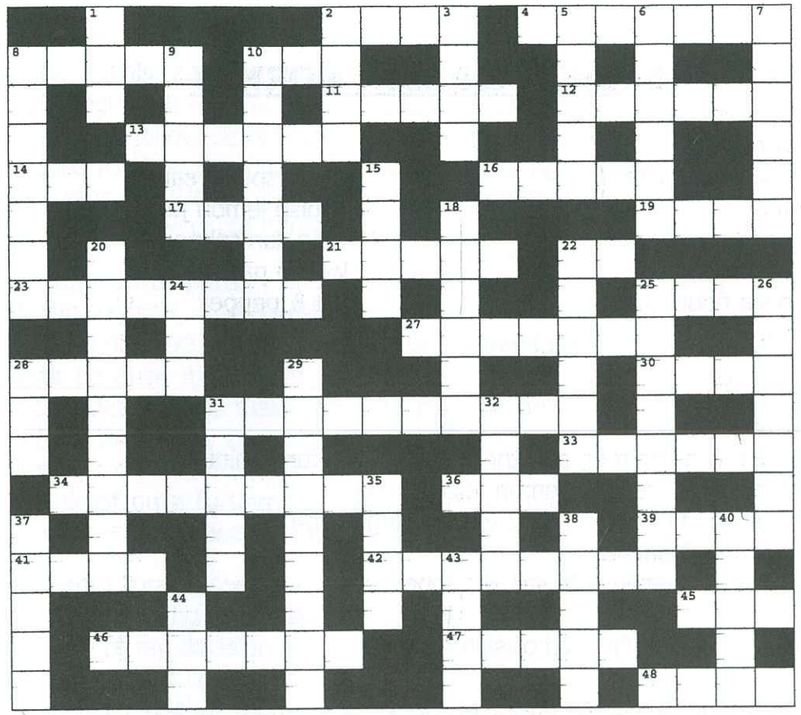


ACROSS

2. TO LAUGH OR SCOFF
4. SOMBONE WHO SAVES
8. LIQUID SUBSTANCE
10. ME & YOU MAKES
11. CHRISTMAS RACING
12. PERSON WHO JUDGES SOMETHING
13. WHO TOOK OVER NEIL'S OLD JOB
14. ABLES US TO SEE
16. OF LESSER IMPORTANCE; SMALL
17. AGGRESSIVE & SURLY YOUTHS
19. GREY-GREEN LEAVED PLANT USED IN COOKING FOR FLAVOURING
21. VETERINARY SERVICES OFFICER
22. ULTRA VIOLET
23. WHAT YOU START WITH WHEN KNITTING
25. A LEGAL CONTRACT
27. LEGUMINOUS PLANT OF EUROPE, CULTIVATED FOR FORAGE
28. LONG, SHARP CLAW
30. OFTEN ENJOYED IN SANDWICHES WITH MAYONNAISE
31. DUCKWORTH'S, PLATT'S & WEBSTER'S STREET
33. TO DEAL OR WORK FRIVOLOUSLY
34. FARM WITH GOATS
36. SET OF RULES ENFORCEABLE BY COURT
39. LOTS OF SOAP ?
41. THERE IS NO PLACE LIKE
42. WHAT DOCUMENTS ARE SENT IN
45. AN EVERGREEN LEAVED CLIMBING PLANT
46. TEETH DOCTOR
47. FEET CLOTHES
48. MAKES WHEELS MOVE

DOWN

1. RUMINANTS CHEW THE
2. JUNIOR SCHOOL STREET
3. ROMANTIC RED FLOWER
5. TOWN IN BERKSHIRE NOTED FOR ITS HORSE RACE MEETINGS
6. FOOLS
7. COOKING BOOK
8. POPULAR US SITCOM
9. WRITE DOWN WHAT YOU HAVE DONE
10. STOPS FINGER PRICKING WHEN SEWING
15. KEEPS YOU WARM
18. MAN'S MONEY HOLDER
20. 2000 WAS THIS
22. FALKLAND GOOSE
24. SOME DRINKS ARE IN A TIN
25. CAN STORE LOTS OF INFORMATION ON COMPUTER
26. WHAT WE CAN KEEP CLOTHES IN
28. WHAT SOME DRINK AT SMOKO TIME
29. HERMENA & KEN'S SHOW
31. ACTING SUSPICIOUSLY
32. REPRESENTATION OR LIKENESS OF A PERSON
35. STOP FEMALE ANIMAL HAVING BABIES
37. POPULAR SHOPPING & HOLIDAY PLACE
38. 12
40. SATAN
43. CAN KEEP FLOWERS IN THIS
44. ALLOWS US TO WRITE

EDITORIAL

Dear Reader,

It has certainly been a busy month for the Falkland Islands farming community. During the period Farmers Week came and went once again. Congratulations to the RBA on putting together a series of topical and informative sessions and to all farmers who participated so actively.

Farmers week, from the DoA's perspective, is all about staff presenting material that is of importance to farmers and seeking comment about the topic. As usual, the response was tremendous with active discussion on a whole range of topics.

Included in this edition of the Wool Press are many articles covering a broad range of issues. It is hoped that they are informative and thought provoking. It is obvious that two issues stand out as being of considerable importance to farmers at the moment, namely the Pasture Improvement Programme and the opportunity for enhancing farm profitability presented by a Falkland Islands meat industry. As a result, articles on the PIP planning requirements and the DoA gross margin Decision Support Model (able to be used to evaluate opportunities such as meat vs wool, wool and meat vs wool etc), are particularly recommended for your attention.

Neil Judd
Senior Agriculture Advisor

As usual, comments are welcomed by the "authors" of all the articles presented in the Wool Press. If you have a query, or require more information on any topic, do not hesitate to contact the Department of Agriculture.

The following report is based on a presentation given at Farmers Week 2004

FALKLAND ISLAND SHEEP STATISTICS

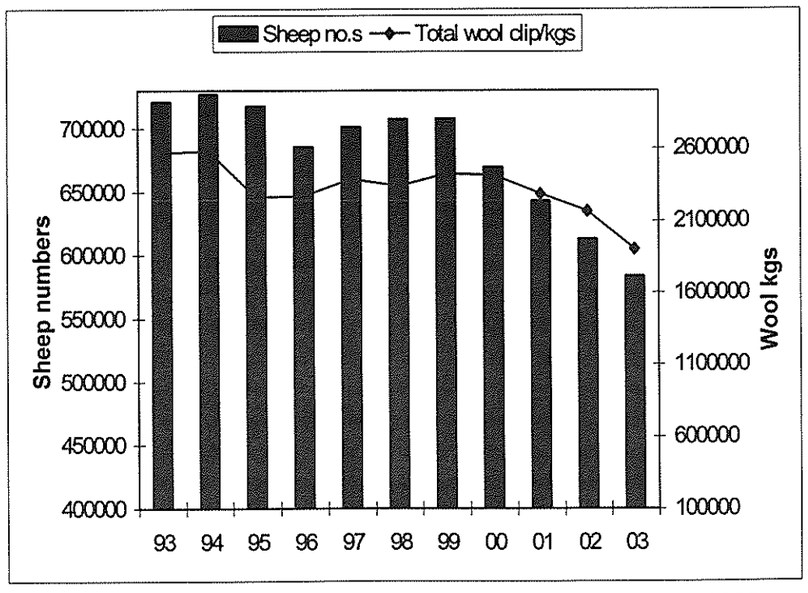
Damien O'Sullivan

This review of Falkland Island sheep statistics was presented at Farmers week, July 2004. It is a broad review of the information that is collected from Farmers on a yearly basis. The review looks at statistics since 1992.

While it is simple to look at the numbers there are many reasons for the variation and differences that occur. Some of the factors that affect the statistics are:

- weather
- commodity prices
- available labour
- management/accuracy of figures
- aims of enterprise
- change in enterprise *(some Islands now have no sheep so this will affect the total sheep numbers carried)*
- changing markets

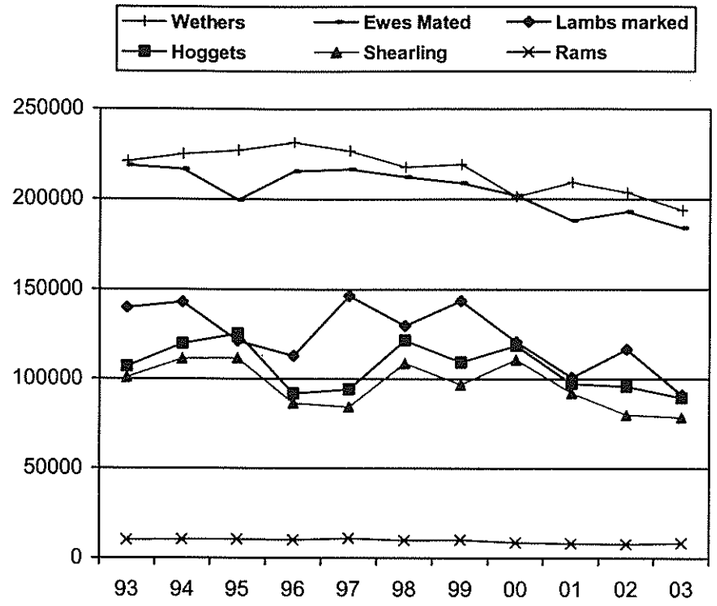
Falkland Island Sheep Numbers



Graph 1: Falkland Island sheep numbers since 1993

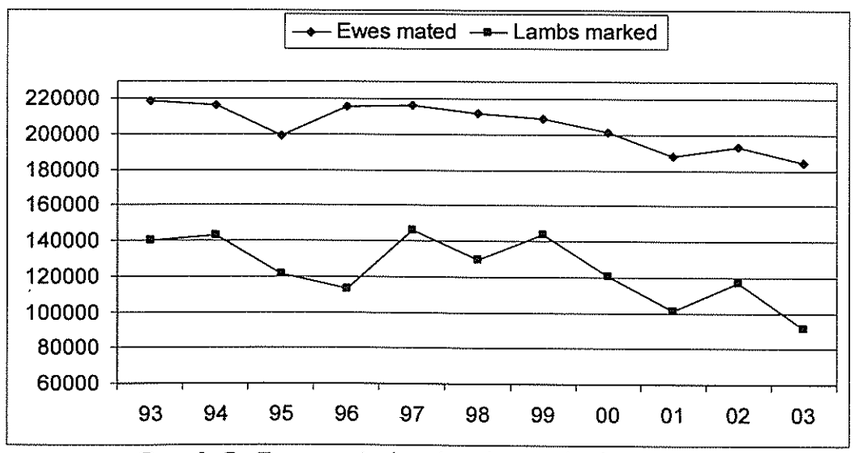
Since 1993 there has been a 19% decline in adult sheep numbers and a 26% decline in wool production. Some of this decline is obviously due to fewer sheep on some of the islands and farms. It is also obvious that some of the weather circumstances that affected sheep survival on many farms during this period would also have negatively impacted on the overall level of wool productivity on the farms.

Graph 2: Composition of the Falkland Island sheep flock.



Flock Composition

Graph 2 shows, despite a decrease in numbers, flock composition has remained fairly constant. While decreasing flock numbers and wool production is a concern, it would arguably be even more worrying if the % of wethers in the Islands sheep population was increasing when the overall flock was decreasing significantly. Fortunately this is not happening. However it is of concern that the number of ewes mated in the Islands has decreased from 220,000 in 1993 to approximately 185,000 in 2003. Such a decrease greatly affects the ability of farmers to increase sheep numbers in the future.

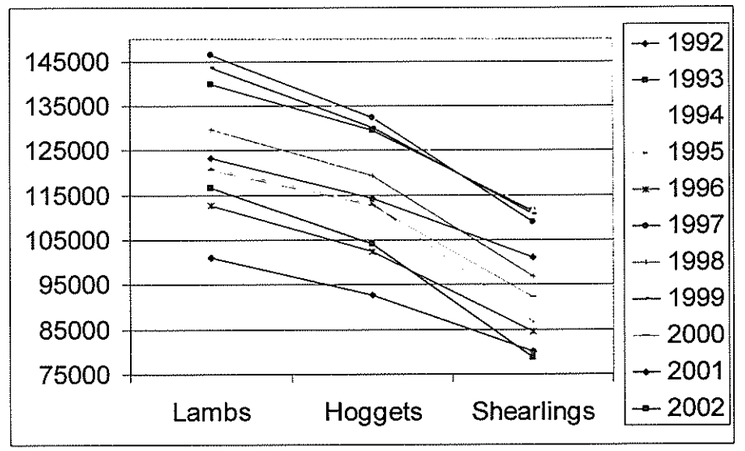


Graph 3: Ewes mated vs Lambs marked

Graph 3 indicates the difference between ewes mated and lambs marked over ten years. Currently the average lambing is 60% ranging from 49-69%. This is obviously affected

by many factors especially the weather. As an example it is clear that the severe winter in 1995 had a direct effect on lambing percentages. The range of lambing percentages does however demonstrate there is potential to improve lambing rates on a regular basis despite the weather with many farms consistently averaging in excess of 75% lambing.

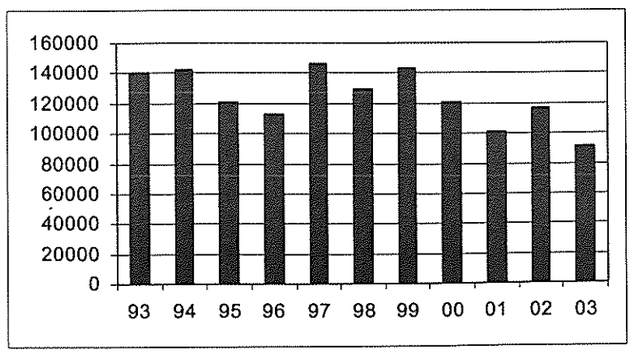
Graph 4 highlights the annual losses that occur from lamb marking to shearlings. On average 30,500 head are lost between lambing and shearling age. Over a 10-year period there were on average 127,000 lambs born and by eighteen months of age 30,000 or 1 in 4 had died. Generally the graph shows that there is a large difference in year to year losses which could be attributed to weather and climate. However there appears to be a consistent loss on a yearly basis as shown by the drop from lambs to shearlings. Judging by the drop in hoggets to shearlings there may even be higher losses in the period after hogget shearing.



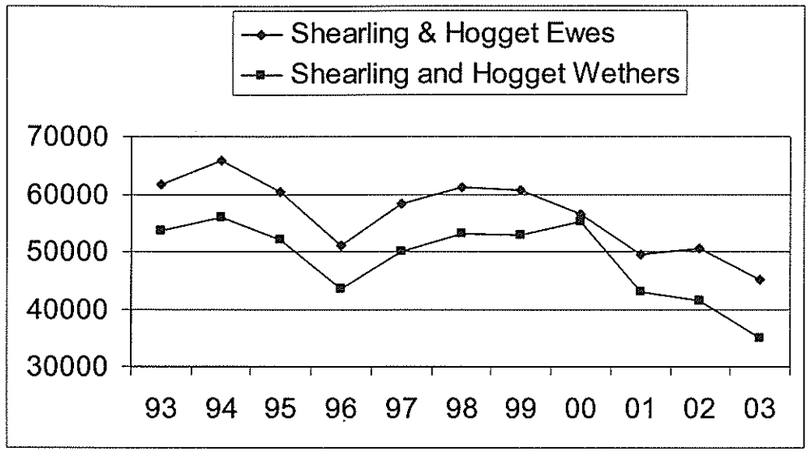
Graph 4: Losses in Lamb numbers from ewe to shearling.

In graph 5 there has been a drop in lambs marked/year. On average there are 124,180 lambs marked/year (since 1993) with an average drop of 3% in lambs marked/year. The fall in average lambing percentage since 1993 is thought to be a result of reduced numbers of ewes mated as well as poor weather conditions in recent years. Overall these figures show just how variable lamb marking results are from year to year and that large numbers of lambs are required to be marked in some years to alleviate the heavy losses in other years.

Graph 5: Lambs marked/year since 1993



Graph No 6. showing "shearling and hogget ewe numbers vs shearling and hogget wether numbers" indicates there are fewer wethers shorn each year than ewes. This equates to 14% less wethers/year on average (7640 wethers less/year compared to ewes.) Close examination of the graph indicates a common trend in all years except 2000. Generally you would expect the variation in total numbers to be weather related and possibly to have a similar effect on both sexes. However, the difference between wether and ewe numbers is relatively consistent. As a result the cause of difference may be genetically related or a management factor.



Graph 6: Shearling and hogget ewe no.'s vs Shearling and hogget wether no.'s

Some suggestions as to why this may be occurring are:

- Genetic tendency of flock to produce more ewes? This is certainly possible but generally you would not expect this to be common, and where it did occur, for it to occur only in particular flocks and for only some particular rams. Not something that would be common across a flock of varying lines.
- Lamb marking practices. Are considerably more wethers being lost after lamb marking than ewe lambs? Are high wether lamb losses caused by ram lambs being marked at an older age than "world best practice" suggests they should be? Should all lambs be marked at 6 weeks of age or less? Is it worth having 2 lamb markings? Is the use of rings for castration causing a higher level of loss than acceptable? All interesting questions worthy of serious on-farm investigation.

A Summary

- 19% decrease in total flock numbers since 1993
- Wool production has decreased 26%
- Flock composition has remained relatively constant, but the overall number of ewes mated each year down over 18% since 1993
- Lambing % from '92 to '02 has averaged 60%
- Number of lambs marked have fallen 26%
- 30,500 head, 24% or 1 in 4 lambs are lost between lamb marking and shearling age
- 14% less wethers than ewes per year are present in the shearling flock on average or equivalent to about 7640 wethers.

Does it pay to improve your own figures?

While much of the above is not good news for the Falkland Islands sheep industry, it certainly gives plenty of scope for looking at ways to improve things. To see the effect of minimising sheep losses and improving reproduction on a farms gross margin (GM), it is possible to use the Dept. of Agriculture Gross margin model. As follows;

Based on 'Average' farm

- *Average farm* income = **£15592**/yr
- *Average farm* income & increase in no. maiden ewes by 10% = **£17117**/yr + ↑ **£1525**
- *Average farm* income & decrease in wether deaths by 50% = **£17,113**/yr + ↑ **£1521**
- *Average farm* income & increase in Lambing % by 10% = **£17,564**/yr + ↑ **£1972**
- *Average farm* income & combination of all above = **£21235**/yr + ↑ **£5643**

It can be seen from the above figures that improving something like lambing % has a positive effect on gross margin but by combining several factors there is a flow on effect and a far larger benefit to the operation.

Where to from here?

If you are interested in looking at ways of decreasing losses of lambs or increasing reproduction performance on your farm, I would to like to work with you to identify areas where losses may be occurring and evaluating on your farm, options that can be explored to improve the situation.

Likewise I would like to hear from people who have been able to get these losses under control. As a result of compiling this experience it is hoped that Farmers and DoA will be able to produce a best management practice checklist for increasing reproduction and minimising losses.

Contact: Damien O'Sullivan, Agricultural Adviser, DoA Stanley, 27355

WANTED

1 or more slinks (dead newly born lambs) for lambing techniques practical. If any one finds a dead lamb in reasonable condition I would be very grateful if they could save it (frozen if possible) and send it to the vet department.

Farmers interested in learning more about lambing techniques.

If any one can help with either of the above please contact Sue Harvey 27366.

A CHAT WITH IAN HANSEN ABOUT THE ROYAL SHOW AT LEAMINGTON

Priscilla Halliday

Ian Hansen happened to be in the UK at the time of the Royal Show at Leamington this year. He went along to represent the agricultural side of things, not as a councillor, but as a farmer. So, how did he feel about representing the Islands? Ian said that he enjoyed it very much and was proud to be part of a team that pulled out all the stops to profile the Falklands in a good light.

Did you feel that the Falklands got enough publicity?
Sukey Cameron does a great job making sure the Falklands miss out on very little. Michael Howard, Ben Fogle and the Duke of Gloucester visited the stand, plus delegations from a wide variety of countries; Denmark, China, Ghana and Mexico to name a few.

Was there a lot of interest in the Falklands?
The interest was at times quite unbelievable. There were many people coming to our stand and asking questions about the way of life down here. Many were not aware that we were two main Islands, many thought the Islands were a windswept rock in the middle of nowhere, but for each of these people that came to the stand uneducated, they left knowing much more. There were also old friends of the Islands and people who had a genuine desire to gain knowledge of the way we live – a great many, if not all of the farmers who came to our stand, were envious of our way of life.

What were the main questions people asked?
The most frequently asked question would have to have been "are you all Falkland Islanders?" Closely followed by "do you live there?" These were questions that most people used to break the ice, but once the initial contact was made then other questions flowed e.g. how do you get there, is the weather as bad as we are lead to believe and what are the prospects for the fishing/oil/mineral industries? There were also many more diverse and sometimes difficult topics to comment on. One gentleman from abroad asked me while pointing to a picture of Gentoo penguins: are these fishes good to eat?!

Overall though it has to be a good thing for the Falklands and a fairly cost effective way to sell the Islands to the general public in the UK, and also world-wide as we have a good rapport with other stands e.g. Cuba, Ghana, Nigeria, China, S. Arabia etc. It also should be mentioned that the stewards who run the show are very supportive of the Falklands and we shouldn't underestimate the contribution they make.

WANTED FOR SWAN INLET

A Wool Press, anything considered.

Please contact: Andrez Short on telephone 32266

FARMER'S FIRST AID NOTES FOR LIVESTOCK

Sue Harvey

Many farmers already have a first aid/medicine supply for their livestock. This is a simple list, with a few practical hints for use; of what I think you should consider holding on your farm.

EQUIPMENT

Thermometer
- Traditional mercury, cheap but can be difficult to read and breaks easily
- Electronic digital, easily to read and doesn't break so easily
- Normal temperature
  Sheep 102°F/39°C, lambs 102-104°F/39-40°C
  Cattle 101.5°F/38.5°C

Oral Rehydration
- Ion-aid - brand name
- Mix both packets with 2 litres of water
- The 2 sides of the packet contain different ingredients so if using part quantities equal portions must be take from each side
- Inferior home brew recipe
  1 pint warm water
  1 teaspoon salt
  1 pinch sodium bicarbonate (bicarbonate of soda)
  1 tablespoon glucose powder (if available)
- If calf/lamb will not drink you will have to stomach tube

Antibiotic
Penicillin Injection
- Must shake the bottle well to suspend all particles before use
- Store below 25°C and protect from light
- Tablets cannot be given to sheep and cattle (ruminants) as the bacteria in the rumen will break down the antibiotic
- 1ml/25kg Long acting, Ordinary acting 1ml/30kg body weight – check bottle
- Syringes need to be new or sterilised
- Needles should be changed regularly (if injecting a large number of animals, and not stored once they have been used

Metabolic solution
- Calciject 6
- Used late pregnancy, early lactation on ewes/cows collapsed through lack of calcium
- Best if warmed before use
- Cattle 400ml, sheep 100ml under skin

Frozen Colostrum
- Essential for any weak lambs/calves that haven't suckled
- Best collected from own farm but DoA has a temporary supply (see Sarah)
- Thaw in hot water not microwave

Lamb Stomach Tube
- To administer colostrum

Obstetric lubricant
Ordinary tube
Scissors
Antiseptic solution

CONDITIONS

Wounds
- Clip/cut wool/hair and clean with mild antiseptic solution. Give preventative antibiotic injection

Infections
- Check temperature
- Administer antibiotics

Diarrhoea in young animals
- Check if dehydrated by tenting skin, if skin doesn't bounce back animal is dehydrated
- If dehydrated administer rehydrating fluid by mouth
  Lamb 50ml/kg, 4 times daily
  Calf 2l, 3 times daily
- Give milk and rehydrating solution alternately

Hypothermia
- See Woolpress article October 2003 (ask Vet Dept for copy)

INJECTION SITES

Subcutaneous / Under the skin
- Use short needle
- Can lift up skin to place needle in
- Injection should flow easily with gentle pressure

Intramuscular / Into the muscle
- Muscle in front 1/3 neck in meat producing animal or:
- Muscle just behind pin bone (1/3 distance to hip bone)
- Muscle in front of hind leg above knee

Intravenous / Into the blood stream
- Veterinary procedure

THANK YOU TO ALL FARMERS WHO VOLUNTEERED THEIR ACCOUNTS TO ME. THIS IS AN IMPORTANT DATA SET FOR THE DEPARTMENT TO KEEP UP TO DATE. IF ANYONE ELSE HAS ACCOUNTS TO SUBMIT, I WOULD BE MOST GRATEFUL. ALL INFORMATION CONTAINED IN THE ACCOUNTS IS KEPT SOLELY WITHIN THE DEPARTMENT OF AGRICULTURE UNDER STRICT CONFIDENTIALITY. Regards Mandy

PASTURE IMPROVEMENT PROGRAMME

IMPORTANT NOTICE

As you would be aware the Pasture Improvement Programme has recently had it's 'mid term' review completed and approved. As a result of the review the list of works able to be undertaken through the Pasture Improvement have been broadened. In addition some of the operating principles have been clarified.

All farmers should have recently received a full copy of the 'mid term' review document (June Wool Press) that was presented to the FIDB in May 2004. If you did not receive a copy please contact Karen Marsh at the DoA and a copy will be sent immediately.

As detailed in the report, a key requirement of the programme is the completion of a 'plan of works'. To be eligible for the funding from the 2004/05 budget farmers are required to have their 'plan of works' submitted to the DoA by 30/09/04.

If you have any queries about the overall operation of the Pasture Improvement Programme do not hesitate to contact Neil Judd for assistance.

'PLAN OF WORKS' APPOINTMENTS

Over the coming weeks Andrew Pollard, Doug Martin and Damien O'Sullivan will be making several visits to locations on West Falkland to allow farmers on the West the opportunity to work through their pasture improvement plans with them. Farmers on East Falkland are invited to arrange an appointment for when the team is in Stanley. Visits to Island farms can be arranged at a time convenient to both parties. Anyone wishing to make an appointment (East, West or Island) is asked to contact either Nyree Heathman or Karen Marsh at the Department of Agriculture on 27355.

The team will be at the following locations in the weeks beginning...

2nd August – Stanley	**9th August – Hill Cove**
16th August – Stanley	**23rd August – Fox Bay**
30th August – Stanley	**6th September – Fox Bay**
13th September – Stanley	**20th September – Hill Cove**
27th September - Stanley	

COWBOY BEAN BAKE

Ingredients
1 large onion
8 oz smoked bacon
1 lb pre-cooked beans
8 oz spicy sausages
14 oz tinned chopped tomatoes
1 tblsp brown sugar
1 tsp mustard

Method
- Cut onion, sausages, bacon and cook. Add tomatoes, brown sugar and mustard
- Bring to the boil and let it simmer for ½ hour. Add beans

WEATHER FOR THE 2ND QUARTER APRIL – JUNE 2004

Priscilla Halliday

We seem to have had such good winter recently that it makes me worry what's in store! We have had a fair bit of sun, the temperatures haven't been that bad and at the time of writing this article there have only been a few days of snow showers and snow actually laying. Lets keep our fingers crossed that that's as bad as it will get. Hopefully I haven't jinxed it by saying that! I got quite a shock recently when I looked out of my office window just after 4 o' clock and it wasn't properly dark. Ok, I know it's pretty sad when you leap around your office with joy when the long winter nights start to disappear!

In April we were still seeing high temperatures with the highest being 22°C at Shallow Harbour. In May the highest temperature recorded dropped by 8°C because the highest was 14°C at Saunders Island, Shallow Harbour and MPA. In June the highest temperature recorded was 12°C at Port Stephens. The lowest temperatures over the last 3 months have dipped low enough to make us dig out the thermals and find those ridiculous woolly hats that do not do any favours for our street cred (if we ever had any in the first place!). In April the lowest recorded temperature fell to a chilly -4°C at Hope Cottage and Port Howard. In May it went right down to –7°C at Hope Cottage and in June, -6°C at Port Howard.

We have had a fair few gusts over the last few weeks but the readings aren't as bad as I thought they would be. In April North Arm had the strongest wind gusts recorded at 52 knots, while MPA had gusts up to 60 knots in May and 53 knots in June.

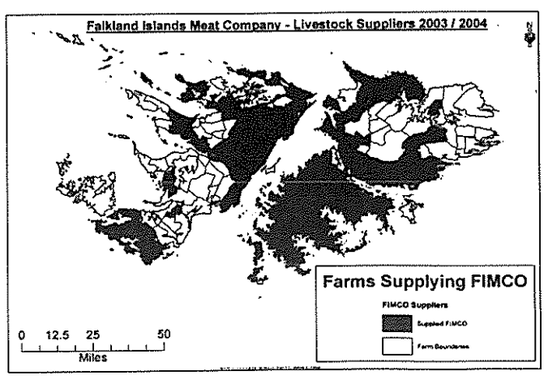
April	**Temperature**		
	Highest	**Lowest**	**Average**
Hope Cottage	18	-4	8
North Arm	N/A	N/A	8
Port Howard	N/A	-4	10
Saunders Island	16	0	8
Shallow Harbour	22	-2	8
Stanley	16	0	7
MPA	16	0	7
May	**Highest**	**Lowest**	**Average**
Hope Cottage	13	-7	4
Port Howard	N/A	-5	6
Saunders Island	14	-3	5
Shallow Harbour	14	-5	5
MPA	14	-3	4
June	**Highest**	**Lowest**	**Average**
Hope Cottage	11	-5	4
Port Howard	N/A	-6	6
Port Stephens	12	0	5
Saunders Island	10	0	5
Shallow Harbour	11	-2	5
Stanley	8	-4	3
MPA	11	-4	4

Once again rainfall registrations varied considerably from place to place. However, as shown below, good falls were recorded at all centres in April, less in May and solid falls in June.

April	**Total Rainfall**	**Average Wind Speed**	**Maximum Gust**
Hope Cottage	50	8	42
North Arm	62	14	52
Port Howard	46	9	41
Saunders Island	63	7	44
Shallow Harbour	52	12	45
Stanley	55	11	51
MPA	62	14	47
May	**Total Rainfall**	**Average Wind Speed**	**Maximum Gust**
Hope Cottage	33	8	56
Port Howard	29	10	50
Saunders Island	24	8	45
Shallow Harbour	25	13	57
MPA	32	14	60
June	**Total Rainfall**	**Average Wind Speed**	**Maximum Gust**
Hope Cottage	30	8	44
Port Howard	34	8	39
Port Stephens	50	11	39
Saunders Island	53	6	41
Shallow Harbour	55	11	43
Stanley	23	11	44
MPA	51	13	53

FALKLAND ISLANDS MEAT COMPANY 2004 EXPORT REVIEW

John Ferguson



During the recent Farmers Week we gave a presentation of the 2004 Export Season. For those not able to attend, I hope you will find the following information (including extracts from the report) of interest:

2004 Export Season went very well, especially when considering it is only the 2nd season and there are still substantial challenges to overcome. Although everyone is still adjusting to this new industry, grading, carcass weights and quality were improved.

The decision to allow some farmers to grade their own livestock (in particular FLH) was successful, resulting in those farmers becoming more involved, and having a better understanding of FIMCo requirements. However, there are risks with this system and it has to be carefully controlled.

Staff – despite the mixture of nationalities and differing conditions of employment, the staff worked very well together with very few issues. It took a while to gel a system in the Cutting Room, but with some additional staff it settled down well. The Slaughter Hall staff contained a high percentage of locals, who performed as well as the contractors. The outside staff also worked very well, in difficult conditions most of the time.

The transport system held up well, despite being far from perfect, and under considerable pressure when throughput increased – the average truckload is approx. 240, whilst we were producing an average of 370 (at times 400+) during the latter part of the season. We know there are improvements to be made and these are being considered – other factors will take much longer (i.e. road conditions; New Haven facilities and Sand Bay paddocks)

Investment in plant improvements during the 2003 Closed Season was mostly very successful, and this was shown in the fact that we produced on every day of the season – whereas there were many stoppages during 2003. The re-location of the Chiller refrigeration plant was a total success, and not one carcass was lost this season, even though there were several minor breakdowns. The Autoloader for the Incinerator worked well – until we reached the maximum capacity of the equipment. Waste handling (inside & out of the plant) along with Health & Safety was greatly improved – with no more lifting of heavy containers! The new Cold Store operated well, with few snagging issues.

Waste management remains an expensive, difficult and serious issue. The long-term options are being considered, although production was greatly improved during the season, after we were granted a licence for sea-disposal. The method however, was not the most efficient and requires improvement.

Outstanding challenges The Blast Freezer did not operate as expected, and the supplier admits they got it wrong (although local contractors have been extremely helpful). Thankfully, we were able to use the old B/F – difficult though it was, and this is currently being worked through. New Recording systems and Database were problematic, but improved as the season progressed, and the Cold Store stock control system is being improved for 2005. Quality Control / HACCP etc., are areas that are currently being reviewed, as although there was no health risk, (the OVS saw to that!) recording requires improving. Much remains to be done.....

Sheep numbers – Total killed 21,466.

	2003	2004	% change	
Lambs - killed	2,600	1,800	-30%	Policy to improve lamb weights >12kg
Weights / prices	11.0kg - £8.40	13.0kg - £9.50	+13%	
Mutton - killed	12,800	19,600	+53%	
Weights / prices	20.5kg - £5.06	21.0kg - £6.50	+30%	

Quality – Only 60 sheep were rejected through the season. Boils remain a major concern, affecting yield; quality; production time lost to trimming etc. It also restricts options – as all mutton has to be boned out to reduce the risk of any boils being left in the product. 15 sheep contained Hydatid cysts (from 6 farms)

Farms supplying 2003 – 31 2004 – 39 (+30%)
50% + of farms (able to supply) now do, these farms own approx. 73% of the total livestock. (See map above)

Productivity	2003	2004	
Average daily kill	146	286	
Record daily kill	254	416	(On best day = 1 sheep every 1 min & 9 sec's)

Shipping	2003	2004	
Total tonnage	117mt	236mt	+100%
Cartons per container	480	660	+38%
Shipping cost per tonne	£574	£340	40% improvement

By Products	2003	2004	
Salted skins	10,600	20,000+	(17,000 casings were also produced in 04)

Sales per head	2003	2004	
Sheep	£16.60*	£25.00	Includes skins
Lamb	£25.45	£28.50	" "

* Lower return in 2003 – due to qty of product lost because of Chiller problems and breakdowns etc

Financial Performance – Export Season

	2003	2004
Turnover	£278k	£531k
Net Result (per sheep)	-£14	-£4

Conclusions
We went into the 2004 Export Season with a set of objectives, against which we measured the results:

Objective	**Result**
• Increase return to farmers	+18%
• Increase sheep production	15,414 to 21,466
• Increase sales price to FIMCo	£18 to £25
• Determine max daily productivity	400
• Stay within forecast	Forecast £280k – Budget £315k

Closed Season remains a major challenge, and is an area in which we are constantly looking to improve throughput, whilst making savings – it is not easy!

If you have any questions/concerns on the above, please don't hesitate to contact me.

GRAZING MANAGEMENT TRIAL 2004

Co-operating farmers are sought for the establishment and monitoring of up to 10 grazing demonstration sites.

The sites will be established in Camps in the vicinity of 1,000-1,250 ha in size, preferably containing an area of greens/existing reseed. The camp will be sub-divided into approximately 8 blocks, which will be rotationally grazed throughout the growing season. Ultimate design, number of blocks and individual block sizes constructed at each trial site will of course vary with the specific characteristics of each farm.

Stock grazing at each site will be monitored throughout the year. The results of any supplementary feeding such as crops, hay, silage and purchased feed will also be monitored.

Aims and objectives:
It is expected that improved grazing practices will lead to greater productivity in wool and meat production in addition to improvements in animal survival.

It is hoped that results obtained from these "managed grazing" sites will lead to increased confidence in the benefits of such systems and as a result, an increase in the number of farms taking up the option of more intensive grazing systems.

Approximately five of the sites will be used for breeding ewes and five for wethers or young sheep. At least one of the sites would be hoped to incorporate cattle. It is envisaged that sites would be located on East and West Falklands and the Islands, subject of course to interest. The sites will have to be representative of the local area.

The Department of Agriculture will supply:
- C posts, strainer posts, timber stobs, 3x2.5mm hot wires for the boundary and 2x2.5mm hot wires for internal or subdivisional fencing.
- Electric fence units
- Monitoring of the land as well as performance of sheep/cattle for a number of seasons, this to be determined by the initial results. See attached list of monitoring to be carried out.

Participating farms in the program would be expected to contribute:
- Labour for the erection of the fencing.
- Suitable stock.
- Involvement with monitoring programmes.
- Day to day management of the stock e.g. watering, moving onto next paddock.
- Allow farm walks to be held to discuss and demonstrate findings of the work.
- Support of the program for at least 3 years would be needed.

Proposed monitoring on the greens will include:
Dry Matter yield, growth rate, species composition change, soil temperature, air temperature, wind speed, wind chill, growing degree days, evaporation rate, bulk density, infiltration rate, nitrogen mineralisation rate, plant tissue nutrient status, soil fertility change, soil biology.

Proposed stock monitoring to be undertaken:

Ewes and Lambs	Wethers	Cows and calves	Steers
BCS	BCS	BCS	BCS
Weight	Weight	Weight	Weight
Growth rate	Growth rate	Growth rate	Growth rate
Survival rate	Survival rate	Survival rate	Survival rate
Pregnancy rate	Wool clip & yield	Pregnancy rate	Meat production/head
Lambing/weaning %	Wool micron	Calving/weaning %	Meat production/ha
Lamb growth rate	Production/ha.	Calf growth rate	Stocking rate DSE/ha
Wool micron	DSE/ha	Ratio cow to calf weight at weaning	
Production/ha.	Kg clean wool/ha	Weaning weight	
DSE/ha	Meat production/DSE	Meat production/head	
Kg clean wool per ha	Meat value/head	Meat production/ha	
Stocking rate DSE/ha	Meat value/ha	Stocking rate DSE/ha	
	Meat value/DSE	Meat production/DSE	
	Meat production/head	Meat value/head	
		Meat value/ha	
		Meat value/DSE	

If you are interested in participating in this on-farm research or have any questions please contact **Doug Martin or Damien O'Sullivan at the Department of Agriculture on ph: 27355** as soon as possible, as fencing needs to start at the earliest opportunity.

CONSERVATION SMALL GRANTS SCHEME

Falklands Conservation is inviting applications for the second round of the small grants scheme. This new scheme, first introduced in March this year, forms part of the programme of new initiatives to celebrate Falklands Conservation's 25th Anniversary in 2004

Five grants of up to £1,000 will be made available annually to members of the public from funds left to Falklands Conservation by the late Mrs Joan Kenneally, for the purposes of conservation, education and protection of wildlife around the Falklands archipelago.

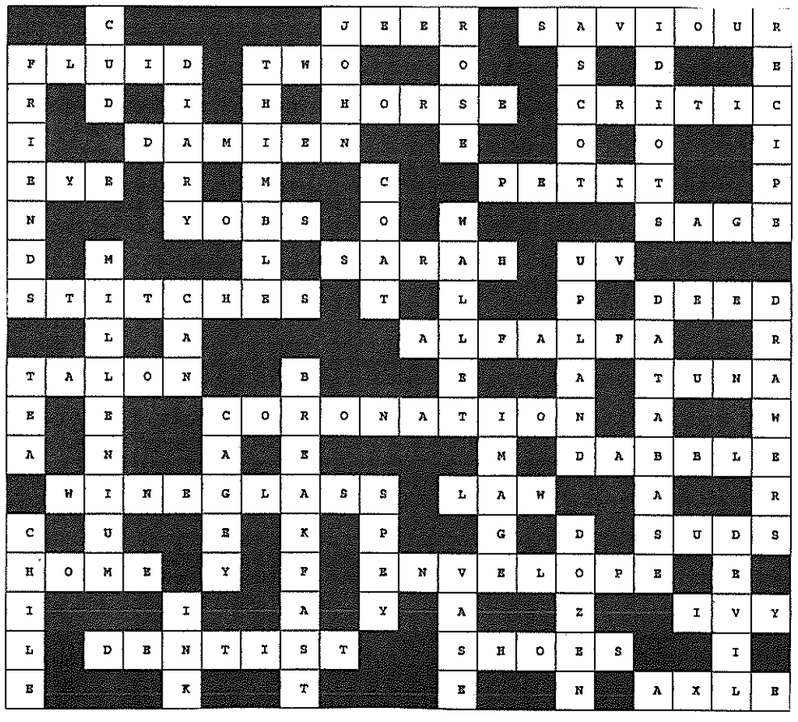
There are no strict rules as to what sorts of projects will be funded. Some examples of relevant work might be restoration of damaged habitat, tussac planting for example, removal of pests or invasive plants, wildlife or baseline plant surveys, provision of hides, shelters or information for tourists, such as site maps and leaflets or enhancement of certain sites, such as the construction of artificial nests.

Conservation Officer Becky Ingham said "For many years Falklands Conservation has been incredibly well-supported by the local people of the islands. We hope that this grants scheme will encourage people to look at the opportunities and identify something that we can help with, that will benefit the environment or wildlife of the Falklands and enable us to put something back into the local community"

The Falkland Islands Conservation Grants Scheme is available to all those normally resident in the Falkland Islands, anyone who wishes to apply should contact the FC office for an application form or alternatively you can download the form by visiting the Falklands Conservation website on www.falklandsconservation.com

A panel of staff and trustees of Falklands Conservation will consider the applications and awards will be made in September. The closing date for this round of applications is the 31st of August 2004.

LAST MONTH'S CROSSWORD SOLUTION



LABOUR SCHEME

In an effort to make the Labour Scheme more 'User Friendly' and straightforward, the following guidelines have been drawn up that have given some flexibility to the original rules, but hopefully preserving the main aims of the scheme which are:

a) To put more Cash into Camp.
b) To service the fencing and pasture improvement programmes.

1. This scheme is to be used for the following camp related works only:
   a. Fencing
   b. Pasture Improvement (not for work undertaken on PIP)
   c. Major Building/ Development Projects

2. The Department of Agriculture must be consulted by the host farmer for approval of any work to be undertaken, before the work commences or person(s) employed.

3. The host farmer should, when practical, work alongside the person(s) being employed on their farm.

4. There is no stated limit for camp residents on the amount an individual can earn on the scheme. The Director of Agriculture will use her discretion to ensure that fairness prevails.

5. A family member, who is normally resident in camp, can work on the family farm for projects stated in point one up to a ceiling of £2,000 per individual per year. This does not include spouses/partners. In the interest of fairness, if someone else in your area has been waiting for the chance to work, they may be given priority over a family member.

6. In special circumstances (i.e. if no one else is available), Stanley residents will be permitted to work on the Labour Scheme.

7. Farmers will not be paid for work undertaken on their own farms.

8. The Department will consider payment for a maximum of 10 hours per day in summer (October to April inclusive) and eight hours per day in winter (May to September inclusive). Travel to and from the work site cannot be claimed.

9. The rates of pay remain the same: £5 per hour for labour

PLEASE CONTACT THE SENIOR AGRICULTURAL ADVISOR FOR FURTHER DETAILS.

APPLICATIONS SHOULD BE SENT TO THE DIRECTOR OF AGRICULTURE FOR CONSIDERATION AND APPROVAL.

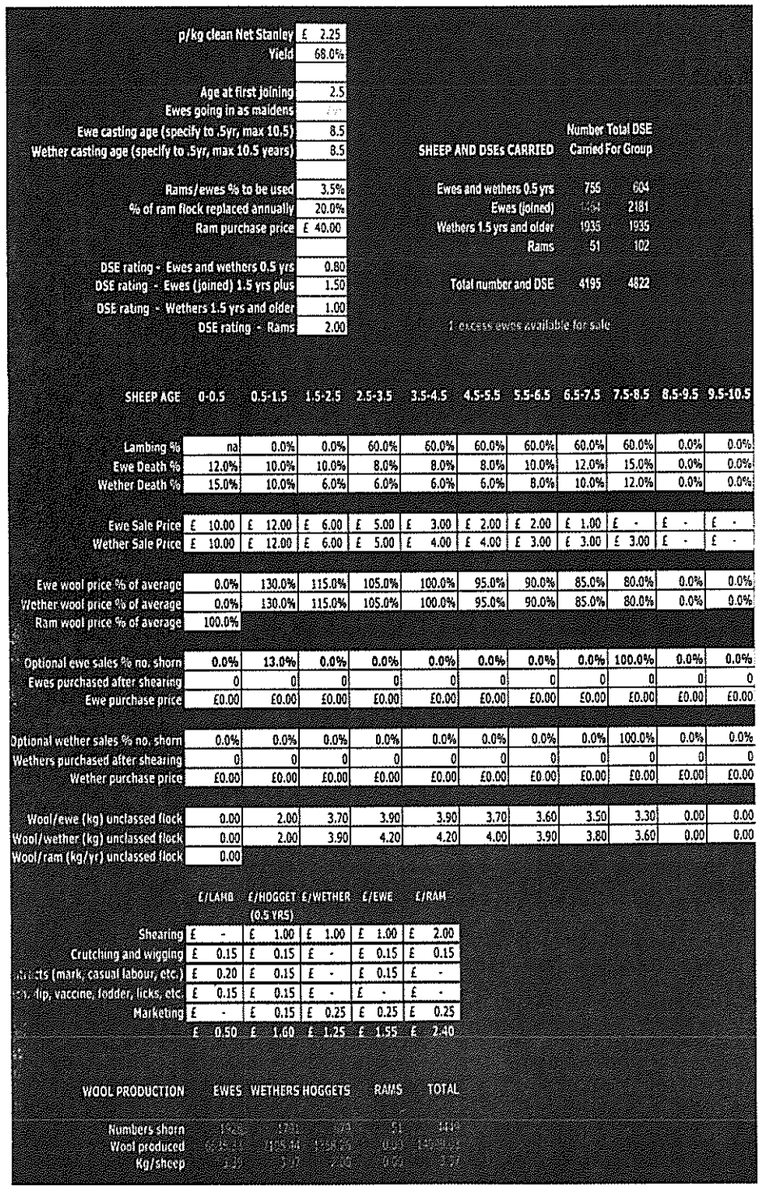
MRS P M RENDELL: DIRECTOR OF MINERALS & AGRICULTURE

1st July 2004

THE GROSS MARGIN DECISION SUPPORT MODEL

Mandy McLeod

I confess! I cannot lay claim to being the brains behind this little beauty, but I have been involved in developing it to best suit the Falklands environment. In a nutshell, it's a handy tool that allows farmers to run a range of options to see what the course of their actions means to the gross margin of the sheep enterprise. Those of you who were at the DOA days during Farmer's Week would have seen us demonstrating it. If you weren't there, let me explain how it works....



p/kg clean Net Stanley £ 2.25
Yield 68.0%

Age at first joining 2.5
Ewes going in as maidens
Ewe casting age (specify to .5yr, max 10.5) 8.5
Wether casting age (specify to .5yr, max 10.5 years) 8.5

Rams/ewes % to be used 3.5%
% of ram flock replaced annually 20.0%
Ram purchase price £ 40.00

DSE rating - Ewes and wethers 0.5 yrs 0.80
DSE rating - Ewes (joined) 1.5 yrs plus 1.50
DSE rating - Wethers 1.5 yrs and older 1.00
DSE rating - Rams 2.00

SHEEP AND DSEs CARRIED	Number Carried	Total DSE For Group
Ewes and wethers 0.5 yrs	755	604
Ewes (joined)	1454	2181
Wethers 1.5 yrs and older	1935	1935
Rams	51	102
Total number and DSE	4195	4822

1 excess ewes available for sale

SHEEP AGE	0-0.5	0.5-1.5	1.5-2.5	2.5-3.5	3.5-4.5	4.5-5.5	5.5-6.5	6.5-7.5	7.5-8.5	8.5-9.5	9.5-10.5
Lambing %	na	0.0%	0.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	0.0%	0.0%
Ewe Death %	12.0%	10.0%	10.0%	8.0%	8.0%	8.0%	10.0%	12.0%	15.0%	0.0%	0.0%
Wether Death %	15.0%	10.0%	6.0%	6.0%	6.0%	6.0%	8.0%	10.0%	12.0%	0.0%	0.0%
Ewe Sale Price	£ 10.00	£ 12.00	£ 6.00	£ 5.00	£ 3.00	£ 2.00	£ 2.00	£ 1.00	£ -	£ -	£ -
Wether Sale Price	£ 10.00	£ 12.00	£ 6.00	£ 5.00	£ 4.00	£ 4.00	£ 3.00	£ 3.00	£ 3.00	£ -	£ -
Ewe wool price % of average	0.0%	130.0%	115.0%	105.0%	100.0%	95.0%	90.0%	85.0%	80.0%	0.0%	0.0%
Wether wool price % of average	0.0%	130.0%	115.0%	105.0%	100.0%	95.0%	90.0%	85.0%	80.0%	0.0%	0.0%
Ram wool price % of average	100.0%										
Optional ewe sales % no. shorn	0.0%	13.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Ewes purchased after shearing	0	0	0	0	0	0	0	0	0	0	0
Ewe purchase price	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Optional wether sales % no. shorn	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Wethers purchased after shearing	0	0	0	0	0	0	0	0	0	0	0
Wether purchase price	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Wool/ewe (kg) unclassed flock	0.00	2.00	3.70	3.90	3.90	3.70	3.60	3.50	3.30	0.00	0.00
Wool/wether (kg) unclassed flock	0.00	2.00	3.90	4.20	4.20	4.00	3.90	3.80	3.60	0.00	0.00
Wool/ram (kg/yr) unclassed flock	0.00										

	£/LAMB	£/HOGGET (0.5 YRS)	£/WETHER	£/EWE	£/RAM
Shearing	£ -	£ 1.00	£ 1.00	£ 1.00	£ 2.00
Crutching and wigging	£ 0.15	£ 0.15	£ -	£ 0.15	£ 0.15
...ts (mark, casual labour, etc.)	£ 0.20	£ 0.15	£ -	£ 0.15	£ -
..., dip, vaccine, fodder, licks, etc	£ 0.15	£ 0.15	£ -	£ -	£ -
Marketing	£ -	£ 0.15	£ 0.25	£ 0.25	£ 0.25
	£ 0.50	£ 1.60	£ 1.25	£ 1.55	£ 2.40

WOOL PRODUCTION	EWES	WETHERS	HOGGETS	RAMS	TOTAL
Numbers shorn	1928	1791	679	51	4449
Wool produced	6535.3	7105.4	1358.3	0.0	14999
Kg/sheep	3.4	4.0	2.0	0.0	3.4

DATA ENTRY SHEET

It's an Excel spreadsheet that consists of two pages that you, the farmer can view. The first page is for data entry. Here you set the parameters. I am pretending to be a farmer that could run about 4,800 DSE's (Dry Sheep Equivelents) with a balanced flock. I have put in my lambing rates, death rates, livestock prices and wool weights per age group, etc., that I know exist on my farm. Ewes and wethers are both cast for age at 8.5 years. I have used a wool price of £2.25/net Stanley/Kg clean. As an example, this corresponded to a farm producing wool of about 28 micron last year. Any wool price (like all the 'variables') could have been used. The second page is a summary that shows what Gross Margin that system produces. On my 'current' scenario the gross Margin is £3.80 / sheep or £3.30 / DSE. My total income is £15923.62.

FALKLAND ISLANDS GOVERNMENT - DEPARTMENT OF AGRICULTURE
Working for the future

GROSS MARGIN DECISION SUPPORT MODEL

EWE FLOCK STRUCTURE	
Ewes going in as maidens	299
Ewe age at first joining	2.5
Ewe casting age	8.5
Total ewes joined	1454
Total lambs marked	872
Lambing %	60%

RAM REQUIREMENTS		
Rams/ewes % to be used		4%
Rams required		51
% of ram flock replaced annually		20%
Annual ram purchases (number)		10
Ram purchase price	£	40.00
Annual ram purchase cost	£	407.10

SHEEP AND DSEs CARRIED	Number Carried	DSE/ Sheep	Total DSE
Ewes and wethers 0.5 yrs	755	0.8	604
Ewes (joined) 1.5 yrs plus	1454	1.5	2181
Wethers 1.5 yrs and older	1935	1	1935
Rams	51	2	102
Total number and DSE	4195	0	4822

WOOL PRODUCTION	EWES	WETHERS	HOGGETS	WEANERS	RAMS	TOTAL
Numbers shorn	1928	1791	679	0	51	4449
Wool produced	6535.3	7105.4	1358.3	0.0	0.0	14999
Kg/sheep	3.4	4.0	2.0	0.0	0.0	3.4

p/kg clean Net Stanley £ 2.25

AVAILABLE FOR SALE	0-0.5	0.5-1.5	1.5-2.5	2.5-3.5	3.5-4.5	4.5-5.5	5.5-6.5	6.5-7.5	7.5-8.5	8.5-9.5	9.5-10.5
Ewes available	0	45	0	0	0	0	0	0	157	0	0
Wethers available	0	0	0	0	0	0	0	0	190	0	0
Total	**0**	**45**	**0**	**0**	**0**	**0**	**0**	**0**	**347**	**0**	**0**

WHOLE FLOCK GROSS MARGIN		TOTAL		£/SHEEP		£/DSE	INCOME SHARE
Net wool sales	£	22,094.25	£	5.27	£	4.58	95%
Net sheep sales	£	1,108.38	£	0.26	£	0.23	5%
Less ram purch. & husbandry costs	£	529.23	£	0.13	£	0.11	
Less ewe purchases	£	-	£	-	£	-	
Less wether purchases	£	-	£	-	£	-	
Less shearing and crutching	£	4,898.52	£	1.17	£	1.02	
Less other direct costs	£	1,851.26	£	0.44	£	0.38	
Equals whole flock gross margin	**£**	**15,923.62**	**£**	**3.80**	**£**	**3.30**	

GROSS MARGIN PRINTOUT – status quo!

I wanted to see what would happen if I made a single change of saying that I would not run any ewe over 7.5 years, but also at 6.5 years selecting the best 50% performing ewes. Let's consider the impact that would have. My lambing percentage in the last year would be improved as I have cast out the worst 50%; my ewe mortality should be improved as I have kept the stronger animals. By adjusting only these two figures I have increased my Gross Margin to £3.98 / sheep and £3.49 / DSE.

I feel that with my knowledge of my farm, coupled with technical advice from the DOA that I have the potential to become a breeding flock and sell off my wethers. I could sell 50% as 'new season' lamb post weaning and pre winter. The rest that haven't reached weight I would sell as shearlings (I might even be able to sell them as 'old season' lamb before they cut their teeth, but that is not in this scenario).

The result, if I could turn my fictitious farm into a breeding flock rather than a balanced flock, would be an increase to my Gross Margin to £5.45 / sheep and £4.17 / DSE. The total income would be £20,127.71, an increase of £4,204.09 on the original system.

In this case, the model assumes that I will need 650 ewes going in as maidens aged 2.5 years, every year to maintain my flock to a level of 4,823 DSE. Direct costs per class of animal remains the same for all scenarios.

FALKLAND ISLANDS GOVERNMENT - DEPARTMENT OF AGRICULTURE

Working for the future

GROSS MARGIN DECISION SUPPORT MODEL

EWE FLOCK STRUCTURE		RAM REQUIREMENTS		SHEEP AND DSEs CARRIED	Number Carried	DSE/ Sheep	Total DSE
Ewes going in as maidens	646	Rams/ewes % to be used	4%	Ewes and wethers 0.5 yrs	1091	0.8	872
Ewe age at first joining	2.5	Rams required	88	Ewes (joined) 1.5 yrs plus	2516	1.5	3775
Ewe casting age	7.5	% of ram flock replaced annually	20%	Wethers 1.5 yrs and older	0	1	0
Total ewes joined	2516	Annual ram purchases (number)	18	Rams	88	2	176
Total lambs marked	1671	Ram purchase price	£ 40.00	**Total number and DSE**	**3695**	**0**	**4823**
Lambing %	66%	Annual ram purchase cost	£ 704.62				

WOOL PRODUCTION	EWES	WETHERS	HOGGETS	WEANERS	RAMS	TOTAL	
Numbers shorn	3558	0	982	0	88	4628	*p/kg clean Net Stanley* £ 2.25
Wool produced	12228.6	0.0	1963.1	0.0	0.0	14192	
Kg/sheep	3.4	#DIV/0!	2.0	0.0	0.0	3.1	

AVAILABLE FOR SALE	0-0.5	0.5-1.5	1.5-2.5	2.5-3.5	3.5-4.5	4.5-5.5	5.5-6.5	6.5-7.5	7.5-8.5	8.5-9.5	9.5-10.5
Ewes available	0	0	0	0	0	0	226	204	0	0	0
Wethers available	355	320	0	0	0	0	0	0	0	0	0
Total	**355**	**320**	**0**	**0**	**0**	**0**	**226**	**204**	**0**	**0**	**0**

WHOLE FLOCK GROSS MARGIN	TOTAL	£/SHEEP	£/DSE	INCOME SHARE
Net wool sales	£ 20,717.22	£ 5.61	£ 4.30	72%
Net sheep sales	£ 8,247.76	£ 2.23	£ 1.71	28%
Less ram purch. & husbandry costs	£ 916.00	£ 0.25	£ 0.19	
Less ewe purchases	£ -	£ -	£ -	
Less wether purchases	£ -	£ -	£ -	
Less shearing and crutching	£ 5,409.99	£ 1.46	£ 1.12	
Less other direct costs	£ 2,511.28	£ 0.68	£ 0.52	
Equals whole flock gross margin	**£ 20,127.71**	**£ 5.45**	**£ 4.17**	

Whilst every effort has been made to ensure the accuracy of this model, no liability for any decisions taken based on information derived from it will be accepted by The Department of Agriculture.

GROSS MARGIN PRINTOUT – breeding flock selling wether lambs/hoggets

Department of Agriculture staff are still 'playing' with the model to ensure that it is all mathematically correct and will function for you. When we are happy with its performance, we will make it available for everyone to use. We hope it will assist you in making some of your management decisions on your farm. It is not the decision maker. That responsibility still remains with you. Like anything, the accuracy of your assumptions can be critical. If you input rubbish, you will get rubbish out. To get the best out of it we will offer workshops on East and West. You can have a play with it with the guidance of DOA staff so that you fully understand how it works and the impact that one change has on other things, and how many small changes can all compound to have a large potential impact.

GORSE, GOOSEBERRIES & CARROTS FOR ORKNEY WINE

Source: The Scottish Farmer

Less than two years after turning professional, a Dutch-born wine maker based in Orkney is on the hunt for new marketing outlets. Emile van Schayk caught the wine making bug from a retired shepherdess when he and his wife, Majolein, were living and working near Stranraer in South-west Scotland. It was not until they moved to St Ola, near Kirkwall, that his hobby bore fruit, both literally and metaphorically. He developed

the technique of making high alcohol wines mainly from local wild fruit and flowers – which led to award winning status at the Orkney food and drink festival.

Increasing demand by fans of the wines led to the establishment of the Orkney Wine Company and the creation of a business currently turning out around 30,000 bottles a year. It also increased a demand for local fruits, such as gooseberries, rosehips and blueberries, as well as elderflowers, meadowsweet and gorse flowers – which is threatening to outstrip supply. One local tomato grower has given over part of his land to gooseberry growing.

Blackcurrants have to be imported from the mainland and Orkney College has been drawn into a project to improve supply. So far, Mr van Schayk has not found an alternative source for the organic rice, brought from Italy, for his rice wine. However, the company's top product, called 18 carat, features nothing but local carrots fortified with eight-year-old Orkney single malt whisky and boasts a 19.3% alcohol content by volume. Other wines are almost equally potent, but Mr van Schayk, claims they will not cause a headache due to the chemical free system of production by natural fermentation, with a minimum of filtering. The wines also appeal to vegetarians, as gelatine and other animal products are not used.

YOU KNOW YOU'RE A FARMER IF...

- Your dog rides in the Rover more than your wife
- You've had to wash off in the back yard with a garden hose before your wife would let you in the house
- You've never thrown away a 5-gallon bucket
- You've used fencing wire to attach a licence plate
- You've fibbed to a mechanic about how often you greased a piece of machinery
- You've driven off the road while examining your neighbour's crops
- You've buried a dog and cried like a baby
- You've used a tractor front-end loader as scaffolding for roof repairs
- You've used the same knife for lamb marking and to peel apples
- You wave at every vehicle whether you know the occupants or not
- You've used something other than paper as a toilet tissue
- You refer to farms by who owned them 50 or more years ago
- You give directions to your farm by using landmarks
- Family weddings and special events are planned around shearing
- The rusted out areas of your old rover are sealed off with old t-shirts
- Your family goes silent when the weather comes on the news
- The meaning of true love is that you'll ride on the tractor with him
- Your husband drives a friend home from the bar when he lives three houses away
- Your early morning prayer covers rain, wheat and sheep
- You listen to 'The Archers' every day at noon
- Your other vehicle is a John Deere
- And finally, if given £1,000,000, you would keep right on farming because that is who and what you are!

The Wool Press

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All the regular features and more!

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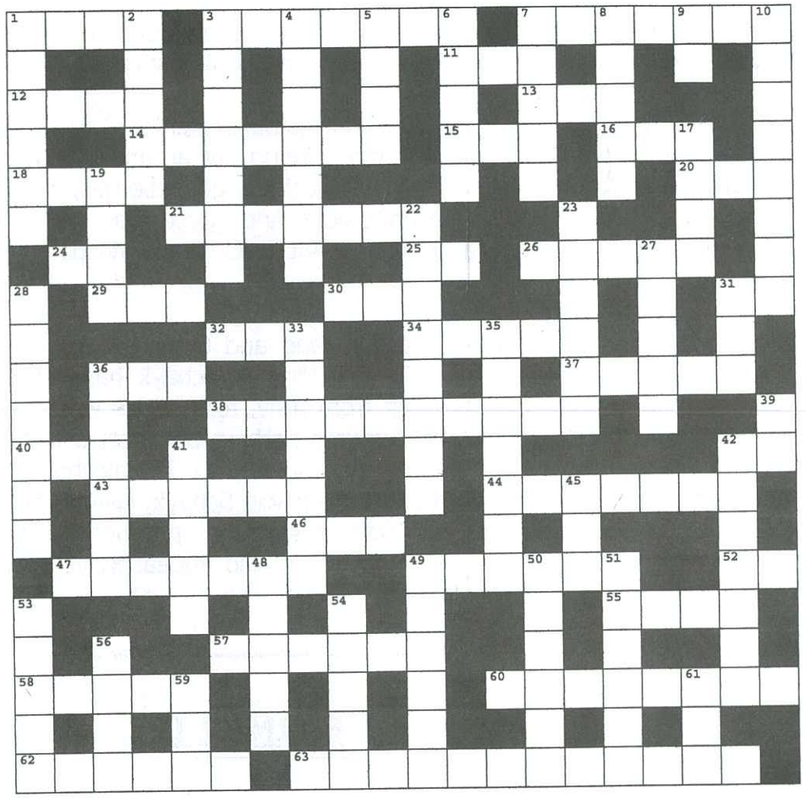


ACROSS

1. CATS USE THIS FOR BALANCING
3. LEAFY VEGETABLE OFTEN EATEN AS SIDE DISH
7. MODELS RUNWAY
11. ALSO KNOWN AS
12. GETS WRINKLES OUT
13. LABORATORY
14. HORSE DRAWN VEHICLE
15. TOILET
16. OFTEN SQUARE & MADE OF CARDBOARD
18. A CUT OR SLASH
20. UNWANTED CLOTH
21. ALLOWS US TO DRIVE
24. IT'S NOT OFF
25. NOT YES
26. SHORT & SIMPLE SONG OR POEM
29. I WILL HAVE A QUICK SLEEP
30. HEAVY GOODS LICENCE
31. AFTERNOON
32. COLD WITH ACHES, PAIN & FEVER
34. TO OCCUR AS A CONSEQUENCE
36. LARGE CONTAINER FOR HOLDING LIQUIDS
37. COWBOYS CAN DISPLAY THEIR SKILLS
38. BOOK OF WORDS AND MEANINGS
40. UNIDENTIFIED FLYING OBJECT
42. PERSONAL COMPUTER
43. DRAWING OF SOMETHING BEFORE BUILDING
44. TO MOAN ABOUT THINGS
46. TO WHINGE OR MOAN AT SOMEONE
47. STUDY OF ANIMALS, THEIR HISTORY & STRUCTURE ETC
49. TRANSMITS RADIO WAVES
52. DOCTOR
55. BLUE/GREEN COLOUR
57. AFFLUENT YOUNG PROFESSIONAL
58. THROWING A WOBBLY
60. BEST EVER, GREATEST, MOST EXTREME
62. A POPULAR AMERICAN 80'S SOAP

DOWN

1. SUDDEN STABBING OF PAIN
2. IT'S AT TWELVE
3. ECCENTRIC, FOOLISH PERSON
4. CAN BE ATTACHED TO VEHICLE FOR CARRYING
5. A SINGLE UNDIVIDED ENTITY
6. ARRIVED BEFORE DECIDED TIME
7. BABY COW
8. TIGER MARKED CAT
9. MORNING
10. 1000 GRAMS
17. BONE PHOTOGRAPH
19. THE TITANIC DONE THIS
22. PUT LETTERS IN THIS
23. WINE MAKING PLACE
27. CHILDS CUDDLY TOY
28. THE RAINBOW HAS 7
31. SHORT FOR A PROFESSIONAL
33. PER NATURAL WONDER, BEYOND WHAT IS NORMAL
35. WALK UNSTEADILY
36. RELIGIOUS CULT INVOLVING WITCH CRAFT
39. DETECTIVE CONSTABLE
41. A SACRED SONG
42. HANGING JEWELLERY ORNAMENT
45. AMERICA
48. LOW & THROATY VOICE
49. DISCRIMINATION AGAINST PEOPLE ON THE GROUNDS OF AGE
50. SOMETHING THAT FLOWS IN
51. THIN PLATE MADE OF BONE/MINERAL
53. HE SHOOTS THE LOVE ARROW
54. INFORMAL SHORTENING OF APPROVAL
56. SOMEONE YOU ADORE AND WOULD LIKE TO BE (USUALLY FAMOUS PERSON)
59. UNCOMMON WORD FOR YES
61. TO PERFORM A SCENE

BASED IN TEXAS
63. ASSOCIATION OF SOVEREIGN STATES

EDITORIAL

Dear Reader

We finally got the spell of bad weather that we all feared was due. As I write, chunks of snow are falling off the office roof so it must be thawing! We all hope that the cold snap did not do too much damage on farms and the stock have come through reasonably well.

All of us at the DOA welcome the establishment of an Advisory Committee again and the first meeting will be held once membership from the farming community has been agreed by Ex Co at the end of September. Thank you in advance for all those putting their names forward either as an RBA or an independent farm representative. Membership is for a two year term and we will be continually looking for people willing to support working groups that will report to the Agricultural Advisory Committee. A focused forum where agricultural issues can be thoroughly debated is ideal. We need regular feedback from farmers.

The Pasture Improvement Programme is progressing well and most farmers planning to participate in the scheme have been in contact with staff to discuss their proposals. Anyone wanting details should get in touch with the department straight away as the cut off for this year is the end of September. Andrew, Doug and Damien have made a number of visits to the West to talk with farmers and many farmers have been into the office to see them. Additionally, Mandy's work sessions on the Gross Margin model are giving farmers an opportunity to see the benefits of computer software as a planning tool.

The Wool Press this month is packed again with interesting articles. Priscilla tells me she has more that enough for this publication and will need to hold over a few for October. Many thanks to all the contributors. There are two articles on Listeria that explain the facts and are recommended reading. It is good to have a further contribution from John at FIMCO and there is a very informative article on nitrogen fertilisers which is topical as we plan pasture work. It is also good to hear from old friends. To Cameron Bell and family over in Tasmania, best wishes from your friends in the Falkland Islands.

Regards

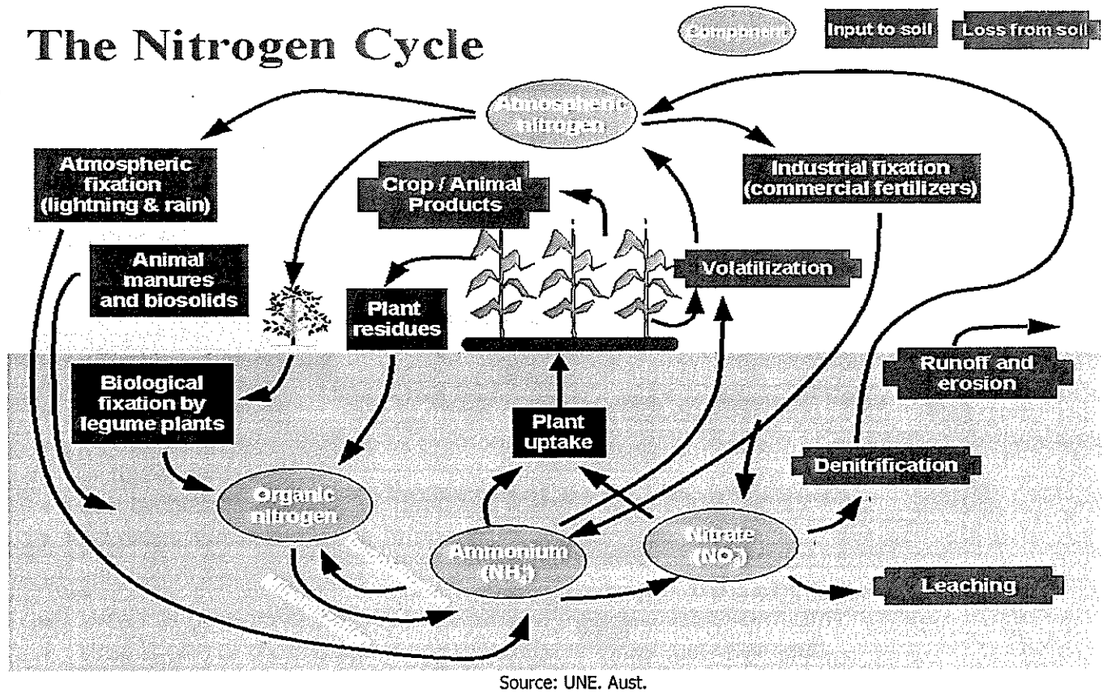
Phyl Rendell

NITROGEN FERTILISERS IN PERSPECTIVE

By Stuart Doyle

Due to changes in the pasture improvement program and a trend toward forage cropping, there has been increasing interest and confusion relating to the use and effectiveness of nitrogenous (N) fertilisers in the Falkland Islands.

Firstly we must consider how Nitrogen (N) fits into the farming system. As per Doug's article in June WP #174 the nitrogen cycle is a dynamic interaction of N gas from the atmosphere, N in the soil solution and N as a component of organic matter (plant and animal and microbe residue and excrement). See below the Nitrogen Cycle.



Source: UNE. Aust.

As a farmer it is important to manage the inputs of N and the losses of N (see above) from your farm. Until such times as legumes become properly established in pastures most of the farms N inputs will be Commercial Nitrogen Fertiliser and decomposing organic matter.

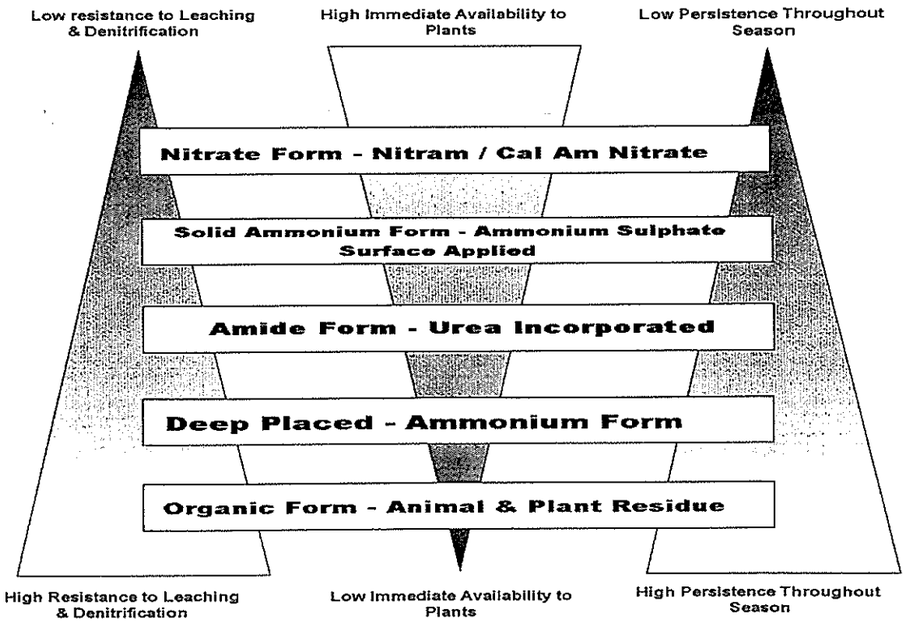
The greatest risks of losses are de-nitrification, leaching, and volatilisation (and of course the removal of agricultural products from the farm).

Firstly let us deal with Volatilisation loss of Nitrogen. This loss is caused by the breakdown of ammonium to ammonia gas. This process happens naturally when N is changing forms (particularly Urea, Ammonium fertilisers and urine). The loss of ammonia gas only occurs in significant amounts in warm, windy, moist conditions when the fertiliser is not in good contact with the soil and has been exposed to small amounts of moisture (not enough to wash the fertiliser into the soil) when surface applied.

De-nitrification of N is likely to be one of the major losses in the Falklands. This loss occurs when organisms in the soil run short of oxygen due to water logged soil and attack the oxygen from nitrate molecules. This again produces N gases (nitrous oxide, nitrogen) which escape into the atmosphere. This N loss mechanism is favoured by trashy waterlogged soil. Losses may be avoided by applying N in smaller doses more often. Nitrate N fertiliser is more prone to this loss than urea or ammonium.

Leaching loss of N occurs when the N in the soil solution is flushed through the soil by the movement of water (cross flow or rainfall through the profile). Again this may be managed by applying N sparingly and in ammonium or urea forms as the soil temperature and pH will slow the formation of nitrates giving a slower release of N.

There are many different forms of N fertiliser available in the Falkland Islands and many growers are asking 'which N fertiliser is best for my operation'. This is not a new question – and unfortunately not a question with a single answer. It will depend on cost, timing, crop and other nutrients that may be required.



Source: Balance NZ

The various importers of N fertiliser were very helpful in supplying information and 'ball park' prices for the various products brought in each year, it seems in general the following list contains the most regularly used N forms (Ranked in order of use)

1. **Urea** (46 % N as Urea)
2. **NPK Blends** (20:10:10, MAP, DAP etc usually as ammonium)
3. **Nitram** (34 % N as 17 % Ammonium, 17% Nitrate)
4. **Cal Ammonium Nitrate** (CAN13.5 % Ammonium, 13.5% Nitrate)

Urea Nitrogen

Urea is one of the most commonly used N fertilisers world-wide and is also the main N component of animal urine. Urea is a white crystalline solid containing 46% nitrogen. In the urea form the N is not plant available and must undergo a 3 step chemical process over a period of weeks to become plant available.

Most farmers will have heard about the risk of loosing N when surface applying urea. The risk of loss occurs during the conversion from urea to ammonia. This is due to ammonia being a volatile gas. The risks of losses are greatest under the following conditions:

- Broadcast urea – no incorporation.
- High temperatures (above 20° C).
- Dew or moist conditions (followed by drying winds).
- High pH soils (above pH of 6.5) (Alkaline soil).
- Large amounts of surface trash preventing soil / fertiliser contact.
- **In summary, used wisely the risks of loss are manageable.**

The key to the most efficient use of urea is to incorporate it into the soil during a tillage operation or apply when rainfall is imminent or weather is cool to cold. A rainfall event of as little as 5 - 8 mm is sufficient to blend urea into the soil to a depth at which ammonia losses will be minimised.
The use of a vari-spreader just prior to planting or just prior to rain will provide good incorporation of the urea into the soil.

Advantages of Fertilizer Urea

- Urea is usually the most cost effective form of N.
- High N concentration, 46% N, helps reduce freight and handling costs.
- In cool temperature stays as ammonium – less likely to leach or denitrify under waterlogging or heavy rain.
- Can be blended with other fertilisers (careful with Triple super)
- N Losses less likely at low temperature and low soil pH.

Disadvantages of Fertilizer Urea

- Urea has to react in the soil to become a plant available form of N.
- Urea is one of the most damaging fertilisers in contact with seed.
- During transformation process NH_3 (ammonia gas) forms and may be lost to the atmosphere.
- Warm temperatures, heavy dews, and pH above 6.5 can cause losses to surface applied urea (usually no more than 20 % unless extreme).
- Urea is Hygroscopic (moisture attracting – may be difficult to handle if allowed to become damp or wet.

Calcium Ammonium Nitrate

Calcium Ammonium nitrate is usually used as a solid material with an analysis of 27% nitrogen. It contains 13.5 % Ammonium and 13.5% Nitrate N (both plant available). Cal Ammonium Nitrate has been used by several farmers with success – however at a much higher price / unit of N.

Advantages of Calcium Ammonium Nitrate

- Cal-Am is instantly available to plants.
- Has an amount of Calcium in the blend

- Less Ammonium therefore less acidifying effect on the soil.
- Less likely to volatilise from surface application

Disadvantages of Calcium Ammonium Nitrate

- Much higher cost / unit of N.
- Low analysis – high rate of application to achieve N rate.
- Losses highly likely under water logged conditions (de-nitrification & leaching).
- Not usually granular – can be difficult to spread

Ammonium Nitrate (Nitram, Extran)

Ammonium nitrate is usually used as a solid material with an analysis of up to 34% nitrogen. It contains 17 % ammonium and 17% nitrate. Nitram is often spread with the false assumption that no losses can occur. Due to the nitrogen being in both Ammonium and Nitrate forms losses can occur through volatilisation, leaching and de-nitrification. However at significantly less risk than urea of volatilisation.

Advantages of Ammonium Nitrate

- Nitram is instantly available to plants.
- Is easy to handle and spread.
- Less likely to volatilise from surface application.

Disadvantages of Ammonium Nitrate

- Higher cost / unit of N.
- Low analysis – higher rate of application to achieve N rate.
- Losses highly likely under water logged conditions (de-nitrification).
- Classed as a dangerous good – can be unstable adds to freight cost.

NPK Blends

The NPK blends, 20:10:10, mono ammonium phosphate (MAP) and di-ammonium phosphate (DAP) are popular sources of P and N fertiliser. They are normally applied at sowing in contact with the seed or spread before planting. Depending on the analysis these blends may be an expensive way of applying N – however if large P rates are required it may be cost effective. Care needs to be taken with placement as high rates of a blend that contain N may be damaging to the seed if banded (placed with the seed down the same furrow).

Comparison of Costs

Rates & Costs / Ha of common Fertilisers in the Falkland Is.

Fertiliser Name	% N	Cost (£ / Tonne) *	Fert. Rate to achieve 50 Kg N / ha	Other nutrients supplied (kg/ha)	Cost £/ Ha (50 Kg/Ha N)
Urea	46 %	*£300	108 kg / ha	0	*£32.50
Nitram	34 %	*£275	145 kg / ha	0	*£40.00
DAP	18%	*£364	277 Kg / ha	55 kg P	£100.00
20:10:10	20%	*£298	250 kg / ha	11 P, 21 K	*£74.50
Cal-Am Nitrate	27 %	*£218	185 kg / ha	11 Ca	*£51.80
Magnesium Nitrate	27%	*£293	185 kg / ha	20 Ca, 7.4 Mg	*£54.80

*The table has been calculated using average prices taken in good faith. The purpose is to illustrate the difference between products – it is in no way a quote. Every attempt has been made to reflect realistic pricing of products from both the UK and Chile. Farmers should be aware that prices will vary on quantity ordered, supplier and transport co used. If both N & P were required DAP may be cost effective as 50 KG P is supplied as well. **Due to increasing oil prices N prices are likely to rise.**

As can be seen in the table that Urea comes out easily the most cost-effective form of N to use due to its high concentration of N. However price alone will not determine the suitability of a product on every occasion. It is important for farmers to have a firm idea of the amount of a nutrient that they need to grow a crop and then decide the best way of supplying that Nutrient. There are some fertilisers (DAP) that may supply sufficient N & P.

Take Home Message

- Nitrogen management is a critical part of a nutrition program.
- Different fertilisers have different amounts and forms of N – are you getting value for money? Is the form suited to your operation?
- Nutrients should be managed with **C-R-A-F-T**.
- **Crop**: - Consider the nutritional requirement of crop or pasture.
- **Rate**: - What rate/Ha of fertiliser do you require to supply required.
- **Application** method: – Is the fertiliser suited to spreading or drilling
- **Fertiliser:** – Is the fertiliser type suited to all of the other factors
- **Timing**: – Does your application timing match the crop & Fertiliser

Source. Incitec-Pivot Ltd.

- Although Nitrogen can be lost to the atmosphere you can manage application to minimise the risks.
- If you are sowing a new crop or using a new fertiliser product seek advice from the DOA or your supplier – it would be wise to soil test to assess your fertiliser requirements.

LISTERIOSIS

By Sue Harvey

Listeria is a bacteria that can cause a few different diseases. It is usually associated with the feeding of silage, though it can be contracted without the animal being fed contaminated silage. It affects ruminants (cattle, sheep and goats) with sheep appearing to be more susceptible.

The bacteria were recently found in a routine milk sample by the hospital laboratory. Individual samples were then taken from each cow and no positives were found. It can be presumed that one or more of the cows had been excreting the bacteria in their milk without being clinically affected. The silage has been "blamed". Listeria is a concern from the human heath point of view for susceptible individuals.

The Disease in Animals

There are two main types of the disease, encephalitis (effecting the brain) and abortion. The two types don't tend to occur together in the same outbreak. It can more rarely cause septicaemia, mastitis or a spinal problem.

Nervous Form / Encephalitis
This is the most common form. The signs are neurological and can include circling, head tilt and facial paralysis so the effected animal drools saliva and has food stuck in their mouth. They are wobbly and after a day or two will be unable to stand and will die.

Abortion
This can occur in sheep after the 12th week of pregnancy and in cattle in the last 3rd of pregnancy. The afterbirth is usually retained and the ewe does not normally have any clinical illness. The incidence of abortion is usually low but may reach as high as 15%.

The Silage Connection
Many healthy animals, including man, harbour listeria in their gut. Soil is contaminated by animal faeces and the soil in turn contaminates the silage. Where air has not been adequately excluded, or there has been poor fermentation, these organisms multiply. It is likely that disease only occurs when the sheep (or cattle) are exposed to a heavy weight of infection. Infected silage usually causes the nervous form, the bacteria are thought to enter via the tooth root and make their way up to the brain via the nerves. The disease is most common in 2 year olds, older ewes or baby lambs when they may be either losing or cutting teeth.

Prevention
Silage is an excellent food for sheep and the risk of listeriosis should ***not*** deter anyone from feeding it to their sheep. The risks can be reduced by caring for the silage/feeding out in the following ways:

- Do not cut too close to the ground.
- Cut silage for sheep at the optimal time (full leaf stage) to encourage good fermentation.
- Where applicable use a suitable silage additive (not formic acid) to lower the pH
- Take care not to incorporate soil into the silage (Pits dug out of a bank side with earth floor and sides are particularly hazardous.)
- Seal bags effectively and protect from vermin and bird damage.
- Have the silage analysed before feeding and do not feed to sheep if the pH is above 4.5. Gordon in the lab can do this for you. Beware that other bales could be different.
- Do not feed mouldy, slimy or otherwise suspect silage to sheep. (Cattle are less susceptible to listeriosis than sheep and can tolerate all but the worst material, but it is better to discard suspect silage altogether.)
- Tidy up wasted or trampled silage at least daily.
- Big bales are best eaten up in a couple of days; otherwise they dry out and the material lies about and becomes contaminated.
- Advice for other parts of the world is to control moles (obviously not an issue here) and roll the paddock– I presume the rolling is to push the soil back in – it might help here?

WANTED
One cylinder head gasket for Fordson Major tractor – Part No. EIADDN-6051-C
If you can help, please contact Michael Minnell at Moss Side Farm on:
Telephone 31128 Fax 31129.

LISTERIOSIS IN HUMANS

Dr Roger Diggle

Human disease is caused by *Listeria Monocytogenes.* This is a bacterium with the unusual ability to multiply at low temperatures. The main sources of listeria are pates, fish, milk, raw vegetables, and soft cheeses such as Camembert, Brie and blue veined types. Person to person contact has never been reported.

It can cause a non-specific 'flu' like illness, pneumonia, meningitis or a rash. In healthy adults the illness is normally mild and trivial, but in those with reduced immunity, or the frail elderly, it can be a serious problem. Young children under the age of 5 are also at increased risk.

In pregnant women it can cause miscarriage and premature labour. If the foetus is infected, 20% are stillborn and a significant number of the others become very distressed during labour. After delivery infected neonates develop pneumonia which can cause severe respiratory distress or death. Meningitis can also occur which can be life threatening and can also cause longer-term brain damage.

Treatment of diseases caused by *Listeria* is with antibiotics (usually amoxycillin & gentamycin) for 2 weeks.

Fit, healthy adults do not need to worry about *Listeria* as the chances of developing a serious illness are so low. However the "at risk" groups do need to take sensible precautions:
Avoid unpasteurised milk
Avoid soft cheeses, pates and under-cooked meat
Observe best-before dates for these items
Ensure that re-heated foods are piping hot all the way through and throw away any leftovers.
Observe microwave times –especially the standing times

The public health laboratory of the King Edward VII Memorial Hospital tests the Stanley Dairy milk on a weekly basis. There have been 2 previous incidents of *listeria.* Infection of the milk in 1991 and, if memory serves me correctly, 1999. The current problem with the milk appears to have been limited to one sample only. The likelihood is that one cow is intermittently excreting *listeria.* The only other possibility is that somehow the milk that day got contaminated after it was produced from the cows. This seems unlikely as the milk is in a sealed system and it is hard to see how contamination could have occurred.

The milk will continue to be tested regularly, but for the time being I would recommend that the "at risk" groups continue with the precautions mentioned above. It is hard to be precise exactly how long these precautions should be maintained for. It is hard to prove a negative and if one cow is intermittently excreting it will be very hard to say the milk is free of risk for some considerable time. Both FLH (the owners) and the operators of the dairy have been extremely co-operative in assisting with this problem. I would like to thank them for that and also state that I do not believe that the infection has been caused through any lack of attention to cleanliness or incorrect procedures.

SOME THOUGHTS ON FARMER'S WEEK

Mike Summers

Farmers Week is now a distant memory, there are lambs popping up here and there, the daffodils are shooting up - it must be nearly spring. This is traditionally the time when farmers are looking forward with keen anticipation to the new season, testing out the new theories, and hopefully reaping the reward of past planning and hard work.

This year was the first Farmers Week I have attended for some time (not deliberately, I just seem to have been travelling) but I was very struck at the sessions I attended by a very new atmosphere. A business approach to farming as the dominant theme - not that a lot of the other issues are still not important or have gone away - but they are becoming secondary to, or a part of, business planning. And a degree of confidence that there is a decent living to be made for those who are prepared and able to change, and adapt to circumstances and the demands of your customers.

It is to be hoped that the majority of farmers will now have enough of the tools, infrastructure and funding to enable them to progress in their chosen areas of development. For our part the Government needs to remain conscious of the outcome of investments made, and requirements for the future as technology and thinking changes. Keeping up with the outside world is a feature of all aspects of commercial life today whether we like it or not. And longer term financial planning for the camp is as essential as it is for all the other services in times of reduced national income. Consolidation is all about us.

But things do always change. It is perhaps because there had been insufficient change prior to the 1980's that a programme as radical as wholesale sub-division became necessary. And it all happened within a decade, all along similar lines. But now we begin to see changes in the structure of farming as owners and lessees pursue their chosen business goals in differing directions. Land and stock is changing hands at a significantly greater rate.

That brings with it new challenges, and for us in the Government one in particular - how to value farms in this new environment, and how to provide funds for the sale and purchase of land. Government, FIDC, the Bank? And what is your farm really worth as a business? These are issues on which we have a number of Government officers working in Agriculture, Treasury and the Bank. Because although farm valuations should not be the province of the Government, but of the buyer and the seller - if we are providing public funds for loans and mortgages we have a responsibility to ensure they can be repaid.

There are other issues too. For some people their farms are the only asset they have - they are their pension fund. If you cannot realise the value of the land and assets when you are ready to sell there is a problem. So it is a big issue.

So for the next few months, whilst you are rotovating the new pasture, dawdling along behind a flock of sheep or sweating at the rolling table, I don't know what you normally think about (and in some cases I don't wish to know), but give some thought to the issue. What is your farm worth to you? But perhaps more importantly what is it worth to someone else? What in particular would make it more valuable? And what role do you think there still is for the Government in the sale and purchase of land?

LIFE AFTER THE FALKLAND ISLANDS

Cameron Bell

Prior to finishing my contract with the Falkland Islands Government in April 2001, I had been successful with an interview for the position of veterinary officer with the government of Tasmania. Tasmania is the island state of Australia, located off the south east of 'mainland' Australia. Despite being tempted to seek temporary employment in the United Kingdom during the 2001 foot and mouth disease outbreak following the completion of my FIG contract, I returned, along with Jenny and Fergus, promptly to Tasmania at the request of my new manager.

Before moving to the Falkland Islands, I had worked for several years in private veterinary practice, in addition to undertaking elephant seal research. My time in the Falkland Islands had provided me with an excellent grounding in government (regulatory) veterinary work. After three and a half years with the Falkland Islands Government, I was ready to continue with this field as a career.

Since returning to Tasmania, I have been employed by the Department of Primary Industries, Water and Environment (DPIWE), which is the equivalent to the Falkland Islands Department of Agriculture. As the name suggests, the department has a lot more areas of responsibility however and with over 1,000 staff spread across Tasmania, it is a big department. I work in the relatively small Animal Health and Welfare Branch, which has a similar number of staff as the FIG Department of Agriculture. We currently have 10 vets in our branch and are involved principally with regulatory issues (private veterinarians deal with 'sick animals' in contrast to the Falkland Islands Veterinary Service), including contingency planning for outbreaks of emergency (exotic) animal diseases, management of endemic animal diseases, animal import policy and public education. Coincidentally, Robin Thompson is employed in another branch of DPIWE, whilst Bob Reid was a previous employee.

I am based in Hobart (population approximately 196,000), which is the capital of Tasmania, located in the south of the state. Most of my time to date with DPIWE has seen me managing a state-wide control program for a sheep disease known as ovine Johne's disease (OJD). A six year national program commenced in 1998 to study and control the disease, and determine how feasible eradication of OJD is. Finishing on 30 June this year, the primary conclusion of the program was that eradication is not feasible in the short to medium term. Consequently, a new approach is being taken to reduce the spread of the disease, i.e. control the disease.

Ovine Johne's disease is a bacterial disease of the intestine that results in chronic wasting. Sheep are usually infected as lambs and then undergo a long incubation period, often not showing signs of the disease until they are 2 to 5 years of age. Once they show signs of wasting, they tend to die within a few months. Infected sheep pass the OJD bacteria in their dung, and the bacteria can survive for at least several months on pasture. Infected sheep can spread the disease before they show obvious signs of the disease- this makes control difficult because it can be difficult to detect infected sheep at this stage.

There is no cure for OJD. A vaccine is now available in Australia, however this does not prevent sheep becoming infected. It controls the disease however by reducing the number of sheep passing the bacteria and reducing the amount of bacteria passed in dung by infected sheep. It has also been shown to reduce the number of deaths in infected flocks experiencing mortalities.

Combined with various management strategies, vaccination is the most effective way currently available for controlling the disease.

It is believed that OJD was introduced into Australia during the 1950s, possibly from New Zealand in imported sheep. Much of Australia has a low level of the disease (e.g. approximately 1% of Tasmanian flocks are known to be infected), whilst some areas have recorded a high percentage of flocks as infected (e.g. in a particular region of New South Wales, over 50% of flocks are known to be infected). In high prevalence areas, annual death rates as high as 20% have been recorded in some flocks. Although there are the obvious economic impacts from the loss of sheep, there may be other production losses. Given these effects, the sheep industry has generally supported the implementation of control measures. The approach being taken in Australia for control of OJD, as well as Johne's disease in other livestock species, has generated interest in other countries.

My involvement with OJD has seen me involved with on-farm testing, right through to participation in national committees. This has provided much variety and generally keeps me from sitting in my office too long! With only 10 government vets for Tasmania, I also end up doing numerous other tasks. These include export certification of animals (mostly cats and dogs) leaving Australia, disease investigations, policy advice, providing advice on animal imports and answering general enquiries from the public.

Agriculture is an important industry in Tasmania. In the livestock sector in 2001/02, the three largest industries contributed over 90% of the gross value (around AUD$516 million) of the sector: the wool sector accounted for 17% of the gross value of all animal industries, red meat accounted for 33% and dairying for nearly 43%. Tasmanian farming is commonly highly mixed: sheep and cattle are found on most properties. Most sheep are located in the drier eastern parts of the State. The dairy industry is located mostly in the high rainfall regions along the northern coast. Beef cattle tend to be found in the wetter regions, though numbers increase in lower rainfall areas during successive years of good rainfall.

Sheep are the most numerous domestic grazing animal in Tasmania and in most years return a large agricultural income. Over 90% of wool produced is exported. Most sheep are run in the eastern half of the State, with a smaller number (about 20%) on the north-west coast and islands of the Bass Strait (the stretch of water between Tasmania and mainland Australia). From a flock structure dominated by the Polwarth breed until 20 years ago, wool growers have changed to finer-woolled breeds. The Merino is now the major breed in Tasmania. As a result, the Tasmanian wool clip is on average one micron finer than that of mainland Australia, and importantly it is also relatively free of vegetable matter. Sheep numbers have remained relatively stable for the last four years at about 3.3 million. This is down on the preceding five years when numbers were around 3.85 million. The flock decline has been the result of the collapse of the wool market in the early 1990s and the general move into cropping.

Our daughter, Lucy Maria, was born in September 2001, and since then, Jenny and I have been kept on our toes. With some house renovations thrown in for good measure (and a cycling accident which involved some major plastic surgery for me), we have been quite busy. Jenny received her doctorate in physical geography in 2002, after 8 years (and one child) working on her thesis. She has returned to university this year on a part-time basis doing some further studies in Geographical Information Systems (GIS), claiming this will make her more employable!

Fergus is now almost seven and Lucy is almost three. Fergus thoroughly enjoys school and is a very keen/competent sportsman, particularly anything involving a ball. As one would expect, Lucy tries to keep up with her big brother.

We have been fortunate to have some visitors from the Falkland Islands since returning to Tasmania. Following my five week locum in the Falkland Islands, David (FIG Fisheries Department) and Rachel Middleton and kids joined us for a couple of weeks in the 2003/04 summer, followed shortly afterwards by Andrea Clausen. We would be happy to see other visitors if they are ever in this part of the world.

If you wish to contact me, my work email address is Cameron.Bell@dpiwe.tas.gov.au or postal address is 93 Gillon Crescent, Mount Stuart, Tasmania, 7000, Australia. Warm regards to all.

DIFFERENCES AND DILEMMAS

Zoë Luxton

I guess, in an ideal world, all our clients would be average sensible people who loved their animals but who had enough money to do what was necessary and enough compassion to let them go when their number was up. But, then again, life would be very dull if that were the case. The enormous range of people and personalities that we have to deal with certainly makes for some interesting days. What fascinate me most are the different approaches different people have towards their animals and their perception of how serious various conditions are. Just recently I had a very nice couple indeed, bring in their elderly cat that had been "a bit off colour recently". Out of the box came this scrawny, tatty looking old dribbly chap. When questioned the cat had been a bit "off" for some months (a fact which did not really please me that much as the appointment was at 6pm on a Friday evening – not a time when I am in the best frame of minds to have a lengthy medical discussion). "He's pretty thin," I ventured. "Yes! He HAS lost some weight!" they enthusiastically nodded. "Any vomiting?" I asked "yes quite a bit really" they smiled. Now while I very much appreciate my clients being smiley and relaxed, and these guys really did like their old cat, I don't think they really had grasped that their old boy really was in a bit of a state. Turns out he had an overactive thyroid gland, thus the weight loss, vomiting and general loss of condition and he is happily having his medication chucked down his neck by his owners who were very relaxed and happy with the diagnosis! This is in comparison to a lady who called me out recently because the dog had a lump of poo all stuck round its hairy bum and it smelt too much for her to sort out!! Several appointments are made for animals with 'broken legs', obviously some really do have broken legs but others turn out to be anything ranging from a pulled toenail to a slight arthritic limp! I was on duty the other weekend and got a call from a lady exclaiming her cat's foot was mangled and there was blood everywhere, it was definitely going to need some stitching. Off I trotted expecting a small wound that I could bung a couple of stitches in and be back home in time for the Eastenders omnibus. However, Mrs B did not exaggerate. Marmalades foot was indeed.....mangled. By what, I don't know, but the poor old ginger chaps' skin was flapping off most of his foot and I had to remove the ends of three of his toes as the bones and nails and skin literally were all pulverised. With a sense of doom and dread I cobbled together the rest of his foot, said a quick prayer to the God of wound breakdowns and put a big bandage on it with some iodine soaked swabs to suck up all the grot and inevitable infection. We were sedating him every 48hrs to change the bandage and initially we kept saying "oh! I think he's going to lose that leg yet" then a corner was turned, the big open wounds were

granulating and tomorrow I am going to see him for a final time and hopefully leave his bandage off. He has a bald, scrawny foot with only one full toe but it is pain and infection free and he wasn't too bothered about his modelling career anyway.

A happy ending for Marmalade but for another little cat called Mima things don't seem to be very straightforward. She came in as a kitten and was very small for her age and didn't seem to be thriving. This sometimes is down to a congenital fault with the blood vessels in the liver but blood tests did not reveal anything untoward. She then began to develop an odd squint and her head trembled and her eyes flickered back and forth all the time, although she was still pretty bright and her appetite had picked up a bit. We blood tested for the feline immunodeficiency virus and feline leukaemia virus, we treated her for suspected toxoplasmosis, we gave her lots of steroids and yet she remained much the same. Then she started to leap in and out of her litter tray and chew on the cat litter and seemed to have problems urinating. X-rays of her bladder and tests on her urine all came back normal. We are, quite honestly stumped. The little cat is not insured so referral off to a big clever place is not really a financial option for the owners and they are happy for us to persevere in the pursuit of a diagnosis. The cat is a bit wobbly and odd but happy enough but we are all tearing our hair out and wracking our brains. Answers on a postcard please!

ABATTOIR UPDATE

John Ferguson

I hope those of you who were unable to come the Farmers Week sessions found the brief report on the 2004 export season informative, as well as the information pack on pricing etc.

This months article is quite diverse, in order to keep everyone informed and updated:

Office Administrator Nikki Summers has joined us, and strengthens the team in taking on this new (and demanding) role. There is much to learn although she is already getting to grips with the various systems, and this includes some training by Amara Doyle (FIDC Financial Controller) on the accounts package etc.
Nikki will be the main point of contact for farmers as she gradually takes on the collation of livestock availability and the logistical aspect from myself. It is essential that we recognise the importance of close liaison and communication is the key, especially with the type of farming and transport system we have in the Falklands. Nikki doesn't know it yet, but she will also be contributing to these articles! Please treat her gently.....

Beef Trial We are currently undertaking a trial of younger, <4 year old (most are <3 years) beef. These are being processed into boneless primals, mince and dice, all of which are vac packed and frozen. The product from this particular specification is being sold through Seafish Chandlery, and is aimed at the hotel, restaurant, shipping trade – as well as the general public.
As this is similar to the imported frozen beef, it is essential that we only provide good quality young beef, which is well presented and priced. Once the initial trial lot of carcases have been produced, we will be evaluating the results. Although the product has only been on sale for a short time, initial feedback is favourable.

Sheep & Lamb pricing – 2005 Everyone now has the new price guides, which are also available on the website. The biggest change is in the area of lamb prices, which reflects the real cash

opportunity for farmers. It gives the individual farmer an incentive to make a sound business decision on (especially taking into account the excellent new Gross Margin model that the Dept of Agriculture has developed, and will soon be providing training on). There is much work to be done on lamb, especially in the area of the conformation, breeds, the correct weight and time to sell lambs from a particular breed etc. I would urge those farmers intending to sell lambs during the coming season to keep in close contact with us, and myself in particular on weights and types of lamb.

We have also increased the price of mutton, to reflect those sheep that fall within the target weight band. This is a step change, as we are looking to reduce the amount of sheep that are either too light or too heavy, as they both cost us dearly, in production difficulties, yield and throughput. This will not be achieved overnight, and we are taking the steady approach to solving these issues.

Mutton – local market Following a discussion with Freshco management and the agreement of the managing director, we are taking a break from supplying the local market with mutton. This will take effect from the end of August. The throughput of mutton at this time of year is extremely low (36 - 38 per week was requested for August) and difficult to justify. We intend to re-commence supply later in the year. However, this decision was not taken on a cost basis alone.

Annual Maintenance As we are an export plant, we have to ensure that the equipment and production lines are in good repair – ready for the coming season. This includes maintaining the many 100's metres of overhead railing (which require annual rust prevention maintenance) and all the other equipment, apart from improvements. This type of work cannot be undertaken whilst we are washing down or producing regularly. (The amount of animals going through is not the issue in this case). This will be an annual requirement, and not to do so would be irresponsible and invite problems during the export season.

Therefore, we have to shut down for the time required to carry this out. We shall still endeavour to process beef in between – as this can be done on a 'batch' basis, which does not have the regular daily commitment attached to it.
It makes good sense to do this at this time of year, for several reasons – demand is at its lowest, and farmers supplying the local market are not as busy (as they will be in the spring / summer), which would cause greater difficulties. We also have leave and training to fit in, which cannot be taken during the export season.

If anyone has any comments or questions on the above, as always - please contact me.

TO ALL WOOL PRODUCERS

The Sheepowners Association have in stock for the coming season wool packs that are manufactured to the high standards required by the Australian Wool Industry. They can be ordered/collected as usual from Eurofishing. These woolpacks are bulk purchased by the FISOA from Australia as a service to all FI woolgrowers and are on sale this season for **£1.99 per pack**. Our high quality clips can be ordered at the same time.
Signed,
N Knight, Secretary FISOA

WHAT'S BEEN KEEPING PRISCILLA BUSY?

Priscilla Halliday

As you will know, I have now taken over some of the functions of Nyree's job. I am editor of the Wool Press and put together all of the yearly farming statistics. Over the past few months I have been very busy.

The first big job was designing the website and getting that up and running. If you don't know the address it is www.fiagriculture.doa.gov.fk. This is where you can easily find our business plan; pasture improvement mid term review, welfare codes, staff write-ups, last year's statistics, etc. On the news page you will find the weekly wool market report. New things are added almost every time we update the sight.

Another big job was compiling a brand new Farm Management Handbook. You will not have received this yet but it should be out in the next few weeks. The handbook has a brand new format. Instead of being a book, all of the information is in a ringbinder folder. The reason for doing this is so each time something needs to be updated or something new needs to go into it, the new paper will be sent out to farmers and you can take the old paper out and put the new one in. This way, information in the handbook will always be up to date. It has been quite exciting watching it all come together from scratch. Apart from putting a death wish on the photocopier and using a few choice words occasionally (which are not suitable for print)!

I was very much looking forward to taking over the Wool Press and have done so since March. I would like to say thank you to those who sent back their questionnaire's that were sent out a few months ago. It was nice to read how you enjoyed the Wool Press. It was also good to have some constructive criticism and some ideas on how we could improve the paper. As always, if you have anything to contribute or any ideas for articles, just let me know.

Lastly but by no means least, the other major job I had to do was to compile the statistics. At the time of writing this article the stats were just about to go to print so by the time you are reading this you should have received them. Thank you to all of the people who got their forms in on time.

Of course there have also been 'little' jobs that I have had to do as well. One of them being the weather each month, which is no new task for me but nevertheless it still has to be done. Speaking of weather, at the time of writing this article we had the first two days of 'proper' snow. What I mean by proper is, when you step outside your foot disappears! Maybe it's the price we had to pay for having such a good winter prior to the last couple of days. To tell you the truth, I thought it must be the most snow we've had in a couple of years, in Stanley anyway! I could be wrong, after all my memory isn't what it used to be (even though I'm only in my twenties!). I remember when I was little and I would go sleighing down the hill by my gran's, or my sister would pull me on the sleigh when we went shopping. I also remember the HUGE snow drifts and the LONG icicles you would see hanging off your roof. Now you're lucky if you get to go sleighing or even see an icicle! Another thing I was thinking about the other day was; isn't it funny that when you were little you would go out and build snowmen and sleigh etc, and when you went home your feet would be like blocks of ice but you never seemed to feel the cold. These days I just have to hear a gust of wind outside the house and I'm shivering! Oh well, lets hope it passes quickly and spring well and truly gets a grip! But until then, keep warm!

WEANING KEY TO DWINDLING FLOCK, SUSTAINABILITY

NSW DPI Media Release

With Australia's sheep flock at its lowest level for over 50 years, national weaning percentages need to be lifted by 10 to 15 per cent for the flock to be even close to sustainable. The implications of this reduction for the sheep flock are enormous, as mutton available for slaughter is predicted to decline to about 8.5 million head, compared with a long term average of 16 million head.

Lambs available for slaughter should increase in 2004/2005 until a decline in ewe numbers starts to decrease supply in 2005/2006. Replacement ewe prices should remain high due to the shortage of ewes nationally, which has a significant impact on the gross margins of lamb enterprises. The percentage of Merino ewes joined to meat rams to produce slaughter lambs has increased from 15 per cent in 1990 to 47 per cent in 2003, with the result that more than two thirds of lambs slaughtered are bred from Merino ewes.

At the same time the number of Merino ewes has dropped from 60 million in 1990 to 45 million in 2002 with the decline continuing. Merino breeders can now use a simple flock structure model to look at the impact of the percentage of ewes joined to meat rams on the number of replacement ewes generated.

The model was developed by Matthew Kelly and Andrew Swan from CSIRO Livestock Industries in Armidale, working collaboratively with the Australian Sheep Cooperative Research Centre. Used on a flock of 4500 ewes, the model showed there was a deficit of 478 hogget ewes at 60 per cent weaning due to drought, and 47 per cent of Merino ewes joined to meat rams with no culling of ewes from the flock.

The national average lambing percentage in Merinos is estimated at 75 per cent in most years. It may be an oversimplification to translate the individual flock to the national flock of 45 million Merino ewes; however this would indicate the deficit of replacement ewes is 4.78 million, which results in only 40 million Merino ewes available in 2004/2005.

At this level the national flock is unsustainable resulting in a shortage of mutton supply and replacement ewes. Improving weaning percentage and keeping ewes for another lambing (five instead of four) will help sustain self replacing flocks.

A "wean more lambs" workshop which is available through Meat and Livestock Australia and NSW Department of Primary Industries provides the most current information for producers to improve weaning percentages. Contact your closest sheep livestock officer for further information.
The flock structure model is available from the **Sheep CRC website** at http://www.sheepcrc.org.au.

Producers are encouraged to use the model to determine the effect of different management decisions on their own self replacing flock to assist in budgeting for the next year.
Contact: Ashley White or Brent McLeod 6349 9777

TOXOPLASMOSIS

Roger Diggle

What is Toxoplasmosis?
Toxoplasmosis is a zoonotic infection caused by the parasite Toxoplasma gondii. It is one of the most common parasitic human infections and is often caught by eating undercooked meat or by hand-to-mouth contact with the faeces of infected cats, contaminated soil, and poorly washed garden produce. The infection is usually asymptomatic or mild and self-limiting (persistent acute fever with enlarged lymph glands) but can be severe in immunocompromised individuals and unborn children. Toxoplasmosis does not require specific treatment if the patient is otherwise healthy. Educating the public, especially pet owners, about the sources of Toxoplasmosis infection, is a key means of controlling the disease

Toxoplasmosis and Pregnancy
Pregnant women who come into close contact with sheep during lambing may risk their own health and that of their unborn child, from infections that can occur in some ewes. These include chlamydiosis (enzootic abortion of ewes - EAE), toxoplasmosis and listeriosis, which are common causes of abortion in ewes.

Although the number of reports of these infections and human miscarriages resulting from contact with sheep are extremely small, it is important that pregnant women are aware of the potential risks associated with close contact with sheep during lambing.
To avoid the possible risk of infection, pregnant women are advised that they should:

- not help to lamb or milk ewes;
- avoid contact with aborted or new-born lambs or with the afterbirth;
- avoid handling clothing, boots etc which have come into contact with ewes or lambs.

Pregnant women should seek medical advice if they experience fever or influenza-like symptoms or if concerned that they could have acquired infection from a farm environment.
Farmers have a responsibility to minimise the risks to pregnant women, including members of their family, the public and professional staff visiting farms.

If a ewe aborts, farmers are advised to ask their veterinary surgeon to take a sample to their local Regional laboratory of the Veterinary Laboratories Agency to determine the cause. In the interests of hygiene, farmers should dispose of all afterbirths promptly and safely.

How common is toxoplasmosis?
Between a quarter and a half of the world's population is infected, and infection is most common in places with warm moist climates. In the United Kingdom approximately 0.5% to 1% of the population acquire the infection each year, so that about 40% of people aged 50 years have been infected. The precise number of newborn babies infected in Britain is uncertain. Currently, about twelve severely affected children are reported each year, but this is almost certainly an underestimate.

Can the disease be prevented?
There is no vaccine suitable for humans and so there is no foolproof way of preventing infection. To minimise the risk, pregnant women should not eat undercooked meat. They should thoroughly wash their hands before eating and before and after preparing food. Rubber gloves should be worn when handling dirty cat litter. If possible, get others to do the job. They should always wear rubber gloves when gardening and wash their hands afterwards.

How is toxoplasmosis diagnosed?
The infection is usually diagnosed by blood tests which measure antibodies to the parasite. Tests which detect the parasite itself are used in patients with poor immunity.

How is toxoplasmosis treated?
Adults with normal immune defences need not be treated unless the illness is unusually severe or persistent, but immunodeficient patients with active disease should always be treated. If the diagnosis of infection is made in a woman during pregnancy she may be offered the choice of termination or drug treatment to reduce the severity of any damage to her child.

FARMER'S WIFE – GRADE 1

I was sorting through some old Wool Presses and spotted this job description for any city girls thinking of becoming a farmer's wife. It is from issue No. 1 September 1989.

Outline
This is a senior management position for which the applicant possesses excellent organisation and communication skills as well as high levels of initiative, self motivation and the ability to work as part of a team. She must be able to plan and implement a wide variety of processes and programmes, develop resources and strategies and provide efficient and reliable backup services and on-going operational and administration support – all with a minimum of supervision. Expertise in the area of industrial relations is also necessary as is the knowledge of how to handle under-age staff.

Duties & Responsibilities
The successful applicant must be of sunny and gentle disposition, attractive in appearance and capable of lifting a bag of cement in one hand and two unshorn sheep in the other. She must also be able to spend at least 14 hours on her feet and remain patient and smiling even when the blisters have burst.

The applicant must be an enthusiastic early riser, summer and winter and possess an exceptional ability to organise her time. She will be expected to draft, drench and drove all day then bath the kids, check the homework, feed the hens, chop the wood, take in the washing, cook the meal and appear 5 minutes later for a drink before dinner looking like the front cover of Vogue. Temperament is very important in this position and the applicant must possess the capacity to remain calm and serene through floods, fire and footrot. She must always be prepared to have her most precious and longed for plans changed at the last moment. In particular, she needs the organisational ability to arrange the family calendar. In this, births, wedding, graduations and

emergency illnesses etc, must be worked around. As well as proficiency in all areas of housework management, some extra culinary skills are required for this position. These include an encyclopaedic knowledge of how to make a 6 tooth edible and the ability to make a sumptuous repast out of nothing on those occasions when there are suddenly 10 extra for lunch and the cupboard is bare.

The successful applicant in this position will find it necessary, because of time pressures, to undertake many different tasks concurrently. Thus she must have enough motor skills and eye hand co-ordination to be able to change a nappy, mix a batch of scones and answer the radio all at the same time. Also, cleanliness and neatness of workmanship are an advantage especially on those occasions when she will have to change a tyre or push a rover out of a bog wearing her best clothes.

Qualifications

In order to take up this post, the successful applicant must have a good knowledge of carpentry, plumbing, mechanics, veterinary science, landscape gardening, interior decorating, hotel management, accountancy, law, medicine, child psychology and diplomacy – just to start. Other skills she will acquire on the job. Applicants also need a fully endorsed licence to drive a truck, tractor, motorbike and pram.

Wages; Nil **Overtime:** Nil **Long service leave:** Nil
Weekend penalty rates: Nil **Sickness benefits:** Nil **Holiday pay:** Nil

Fringe benefits: Despite all, amongst its practitioners this position has a high level of job satisfaction and most wouldn't change it for the world.

**** Maybe someone would like to send me a job description for a farmer's husband?***

BEEF CASSEROLE

Ingredients

1 ½ lb stewing steak
3 oz smoked bacon
mixed herbs
1 tblsp flour
2 onions
2 carrots
2 tblsp oil
1 tblsp tomato puree
1 clove garlic
few strips orange peel
2 tblsp chopped parsley
salt & pepper

Method

- Set oven to 180°C/gas mark 4
- Chop onions, bacon, carrots and crush garlic
- Mix flour, salt, pepper on plate add meat and mix
- Fry carrots and onions then remove from casserole pot
- Add meat and cook until brown
- Return veg, add tomato puree, garlic, herb and orange peel
- Add stock and cook for 2 hours

USEFUL WEB SITES FOR FALKLAND ISLANDS WEATHER

Current weather & Long-term outlooks
http://www.wunderground.com/global/stations/88889.html

Mt Pleasant. Current weather, 5 day forecast + advertisements
http://www.wunderground.com/global/stations/88891.html
Stanley 5 day forecast sunrise sunset times Also data for Pebble Island, Sea Lion Island & Weddell Island, Punta Arenas, Santiago & many other locations are available on the wunderground site.

http://www.met-office.gov.uk/weather/index.html

Good site for UK weather with links to weather around the world
http://www.met-office.gov.uk/research/seasonal/monthly_forecasts/single_terce_cat2.html
Forecast for temperature and weather for all areas in the world. Still an experimental product. Select South America.

http://www.ecmwf.int/products/forecasts/d/charts/medium/deterministic/msl_uv850_z500
Select South America, forecasts out to 14 days. European Centre for Medium-Range Weather

www.bbc.co.uk/weather
Five day forecast Type "Port Stanley" for search.

http://uk.weather.yahoo.com
Current weather data at MPA and forecast for 5 days. Search for Mount Pleasant Airport

http://www.cnn.com/WEATHER/SAmerica/frct.html

Select South America for forecast chart, temperature and satellite photos
Also data for Pebble Island, Sea Lion Island & Weddell Island, Punta Arenas, Santiago & many other locations are available on the wunderground site.

http://www.weatheronline.net.nz/FalklandIslands/Stanley.htm

General Forecasts, 5 days, can select any date for sunrise & sunset times but in NZST
http://wwwa.accuweather.com/adcbin/public/int_index.asp
Select South America Falkland Islands Location. Current weather for MPA, 15 day forecast. Stanley 15 day forecast.

http://iri.columbia.edu/climate/forecast//net_asmt/
Long term outlooks for 6 months.

http://www.buoyweather.com
Information on winds and wave heights around Falklands, mainly marine weather.

Satellite photos
http://www.met-office.gov.uk/satpics/samerica_IR.html

Satellite infra red image of South America

http://wwwa.accuweather.com/adcbin/public/int_sat_menu.asp?partner=accuweather
Select South America Satellite infra-red image. Lots of advertisements on this site.

http://www.weather.com/maps/geography/southamerica/index_large_animated.html

Animated satellite image of South America

http://www.weather.com/maps/geography/southamerica/index_large.html

Satellite image of South America.

Compiled on 12-7-04. These web sites are liable to change so it may be necessary to enter the main address only and then follow links to the required site. If you have any other websites that you have found please let us know. Damien O'Sullivan Department of Agriculture Stanley Tel 27355.

AGRICULTURAL TRAINING UPDATE

Mandy McLeod

The Department of Agriculture has been busy, both behind the scenes and in the fore in encouraging and promoting Agriculturally related training for the benefit of the Falkland Islands.

Just 2 weeks ago, Vikki Lee returned from an intensive training period in Australia where she worked on a one to one basis with a wool classer trainer of high repute. Des Humphrey works for the Queensland Institute of TAFE teaching wool handling and classing. I met him as a part of my work when in Australia in February this year. Vikki had to do a considerable amount of work prior to her departure and completed around 50% 0f the required modules before she got on the aircraft. To do this she spent many afternoons working alongside me in my office where she could concentrate on the task in hand. Once in Australia she had a very intensive 3 months of mainly practical work in sheds and the classroom, as well as completing other written assignments. The result: Vikki now holds her own stencil which enables her to class wool commercially. She starts her career doing 3 seasons with Falkland Landholdings. She intends to go back to Australia during the Falkland's 'off season' to continue improving her skills. Vikki was an excellent ambassador for the Falklands whilst she was away, giving the Falklands much media coverage across several Australian states. Well done Vikki.

Our two other students currently studying in Australia are also doing well by all accounts. Sam Davies and Kim Steen (who both took the opportunity to do some work under our 'Youth Training Programme) are studying at Longreach Pastoral College in Queensland. Whilst you may consider the climate difference to make Queensland not the best comparative choice in terms of Falkland farming, there are many similarities in the way that they farm their properties, including the isolation factor, meaning that farm workers have to be 'jacks of all trades'. The course work is very hands on. For instance, if you are working on 'slaughter', it means exactly that, from selecting the sheep in the paddock, through killing and dressing. In the UK, such a module would take you on a visit to an abattoir with lots of theory and no 'practice'. At the end of this year both girls will have a Certificate III in Agriculture. With the completion of a second year they have the opportunity to gain a Certificate IV and Diploma in Agriculture as well as their wool classing stencil. Like Vikki, they have also given the Falklands a fair bit of media coverage.

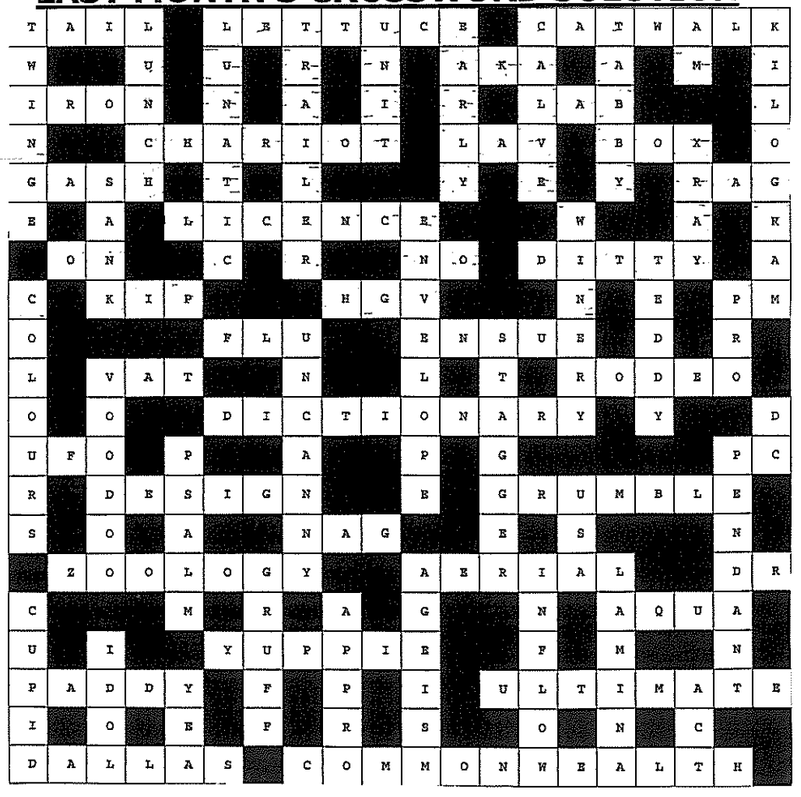
In the department we have Lucy Ellis who has worked hard for 2 years (mainly distance learning) to be awarded a Certificate in wool from New Zealand. This is the basis on which Lucy will now build her fuller understanding of the wool industry worldwide. Nyree Heathman achieved a Diploma in Agricultural (Business Management) at TOCAL College in New South Wales. Nyree did much of her coursework by Distance Learning also. Distance Learning requires a high level of dedication and commitment, particularly if you are the only one doing it!

The Department of Agriculture coordinates a 'Trainee Shearer' programme in conjunction with the contract shearing operators. If anyone is interested in this they should contact a shearing contractor in the first instance. Applicants should preferably be under 21, but consideration will be given to anyone close to that age.

The **Farming For Profit** courses are being run 'in house' by DoA staff. We have tried to tailor the most important factors of the original 8 day programme into 3 days. You may assume that you are being 'short changed' if we can fit what used to be 8 days into 3, but you would be wrong. What we do is cover all of the principles in broad terms, relating what we teach to the Falklands situation. Deep issues, or areas that need more time are flagged up to become short 'dedicated' workshops for the near future. For instance, we will look at record keeping and accounts, but inevitably, as this is a big subject and often requires some concentrated effort, we will flag it up for a 2 day 'dedicated' workshop at locations to suit, but the principles will be covered at the FFP.

We are busy in early September running FFP and Gross Margin Decision Support Software workshops. Next month I hope to give you a rundown on how those went.

LAST MONTH'S CROSSWORD SOLUTION



The Wool Press

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All the regular features and more!

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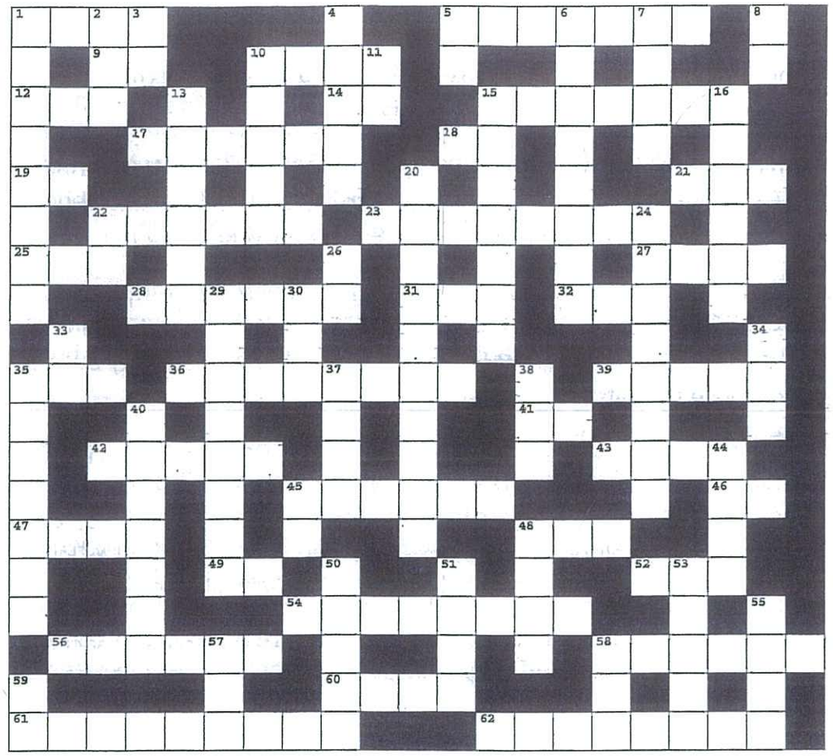


ACROSS

1. GENERAL RUBBISH
5. FLAT FACED CAT
9. MORNING
10. THIS USED TO BE HEATING FUEL
12. VERY IMPORTANT PERSON
14. ABBREVIATION FOR IOWA
15. THIS CAT HAS A BABY'S CRY
17. KEEPS YOU WARM AND OFTEN MADE OF WOOL
18. REFERS TO THE SPEAKER OR WRITER
19. THE ANSWER IS NOT YES
21. BIRD SIMILAR TO OSTRICH
22. A SUDDEN COMOTION
23. TOURISTS LOVE TO SEE THESE
25. TO THRASH OR BEAT
27. SKIN DISEASE COMMON IN ADOLESCENCE
28. SURNAME OF PERSON WHO ESTABLISHED SETTLEMENT @ PUERTO DE LA SOLEDAD
31. BIRD OF PREY WITH LARGE FRONT FACING EYES, HOOKED BILL & SOFT FEATHERS
32. A JELLY-LIKE SUBSTANCE THAT IS APPLIED TO THE HAIR
35. TO COMBINE NUMBERS TO FIND OUT TOTAL
36. THE DAY WE AGE
39. SURNAME OF PERSON WHO 1ST SPOTTED US
41. SPANISH YES
42. GOVERNOR WHO MADE STANLEY THE CAPITAL
43. SLANG FOR MONEY
45. OPERATED OR DONE BY HAND
46. CHEMICAL SYMBOL FOR ACTINIUM
47. TO JUMP SUDDENLY FROM ONE PLACE TO ANOTHER
48. THE HINDQUARTERS OF A PIG
49. ABBREVIATION FOR REGINA ET IMPERATRIX
52. ANY EVERGREEN TREE HAVING ACORNS AS FRUITS
54. TO THRIVE OR PROSPER
56. TO GET IN THE WAY OF SOMEONE
58. FOOLISH OR SENSELESS TALK
60. VARIOUS FASTENINGS FORMED BY LOOPING & TYING ROPE
61. CHEAP HOUSE USED BY TRAMPS
62. HE/SHE CAUSES LAUGHTER

DOWN

1. YOUNG, YOUTHFUL OR IMMATURE
2. A SHORT SLEEP
3. SYMBOL FOR KILOMETRE
4. WHAT BECKSIDE IS
5. ABBREVIATION FOR PRIVATE INVESTIGATOR
6. ULTRA SOUND PREGNANCY DIAGNOSIS - WHAT LUCY HAS BEEN DOING
7. SAID AT THE END OF A PRAYER
8. EMBRYO TRANSFER
10. WE USE THIS TO WRITE ON
11. CHILD'S THANK YOU
13. THE TIME YET TO COME
15. A BLACK & WHITE BIRD COMMON IN THE FALKLANDS
16. MCBRIDE ESTABLISHED A SETTLEMENT AT THIS PORT IN 1766
20. MEMO
22. FREQUENCY MODULATION
24. GIBRALTAR STATION
26. A SCAN THAT PRODUCES MULTIPLE CROSS SECTIONAL IMAGES OF TISSUE
29. THESE ANIMALS ARE NOW AT WEST LAGOONS
30. DIALECT OR ARCHAIC NAME FOR NEWT
33. CHEMICAL SYMBOL FOR NEODYMIUM
34. ABBREVIATION FOR PER SQUARE INCH
35. RESEMBLING AN ANGEL IN BEAUTY ETC
37. HAWAIIAN DANCE PERFORMED BY A WOMAN
38. THE RESIDUE FORMED WHEN MATTER IS BURNT
40. THIS SEA CREATURE IS USUALLY FRIENDLY
44. VARIOUS BIRDS OF PREY WHO ARE FAMILY TO THE ACCIPITRIDAE
45. SHORTENING OF THE WORD MAMA
48. SOUND OF PROLONGED S
50. ACCIDENTAL STROKE OF LUCK
51. A GAIT OF A HORSE IN WHICH DIAGONALLY OPPOSITE LEGS COME DOWN TOGETHER
53. A DEFENCE BY THE ACCUSED THAT HE WAS ELSEWHERE AT THE TIME OF THE CRIME
55. SOMEONE WHO HAS NO EXCESS FAT
57. ONES IMAGE OF ONESELF; MORALE
58. A STAINING OR COLOURING SUBSTANCE
59. IDENTIFICATION

EDITORIAL

It's come around to me again to write the editorial – my how the months pass! They say time passes more quickly as you get older and I think it's true. Talking of time – the clocks have changed (at least in some parts of the Islands) and spring is with us once again. Personally I always like this time of year because you come home in the daylight and you really begin to feel that winter is truly behind you. Mind you the weather always throws in the odd blizzard just to remind you that we are living at latitude 52°S and can't take anything for granted.

The Department seems to have been visited by more than its normal share of farmers in the last week or two of September. Now I wonder why that could be? Could it be that they've come to gaze at some attractive newly arrived member of staff or that they've heard that we are offering free tea and biscuits to all visitors throughout September? No, neither of these, although Sarah does look particularly fetching with her new American–styled haircut. The real reason is, of course, the last minute flurry to get all those farm business plans written up and submitted before the 30th September deadline. Well, I hope all of you that set out to complete the plans before that date successfully made it.

In this month's Wool Press Priscilla has again gathered together a wide range of farming related articles. On the first page you can find out what the work experience students from FICS made of their time in various sections of the DoA. I think I can say on behalf of all departmental staff what a pleasure it was to have them with us for two weeks. There are a couple of veterinary articles – one informative, about Brucellosis, by Sue Harvey and one slightly more light-hearted by yours truly. Stuart Doyle continues his series of articles about what plants need to grow healthily – this month he is looking at phosphorus. There is notice of a phone survey that will be carried out by the FI cattle breeders association in the next few weeks and Damien begins the first article in a series about maximising sheep reproduction. In between there are several shorter but equally interesting pieces.

Regards to all,

Stephen Pointing
Senior Veterinary Officer

The Department of Agriculture welcomes Mr Jimmy Forster and Mr Justin Knight as farm representatives on the Agricultural Advisory Committee. The first meeting will be held in late October.

WORK EXPERIENCE

Priscilla Halliday

From 6th – 17th September the Department of Agriculture took on 5 work experience students. Adam Howe joined Gordon in the laboratory, Thomas Judd joined the vets and Jacob O' Sullivan, Liam Stevens and Sarah Short shadowed Neil and other members of staff. Below, is what some of them had to say about their time with the Department of Agriculture.

"During my time in the Department of Agriculture I enjoyed myself. I did some soil samples in the lab and we had to go out to Port Sussex to get them. I also went to Fitzroy to find a suitable place for a grazing trial. I cleaned the greenhouse for a lambing course and cleaned out the potting shed. There were also little jobs to do like emptying and cleaning the fridges, processing wool samples, cleaning muddy welly boots and lab equipment and picking up the 'Wool Press' from the printers. All the staff were very friendly and they taught me a great deal about what the Department of Agriculture does and how it works. This was a good experience and I might consider applying for a job in the future."

Adam Howe

"During my time in the veterinary department I witnessed many aspects of life as a vet. Speys, castrations and dental's were just some of the operations I was able to watch. Trips to Goose Green, Beckside Dairy and Saladero were also organised, where I helped to class rams and do TB and Brucella tests. I thoroughly enjoyed my time at the Department of Agriculture and would like to thank everyone who made this experience possible."

Thomas Judd

"My two weeks of work experience at the Department of Agriculture was a terrific experience. I learned a lot about farming in the Falklands from wool quality to soil fertility. I'm sure this extra knowledge will help me sometime in the future in my quest for employment and prosperity. I would like to thank all of the people in the Department of Agriculture for making my work experience so enjoyable."

Jacob O' Sullivan

HOLIDAY TIME DIGGING OUT SHEEP

Felicity Alazia

When the snow fell during the last week of our holidays we had really huge drifts. On the Friday after it had stopped snowing Dad went with the tractor and trailer to look for sheep snowed in between here (Port Edgar) and Stoney Ridge. He only found four but the drifts were too big to get through, even in the tractor. On Saturday I went with Dad to check the Shearlings. Their camp is only about 250 feet above sea level and follows the coast around but the picture shows how big the drifts were. We dug out 18 sheep mostly in the same place. We got most of them to walk away after

working on their legs, and Dad took two home. We got them walking after a few days. Two weeks later Dad went back to see if the drift had gone. He rang me at the hostel to say the drift was still up to his knees at least, but where the rock had been hidden from us he found six sheep stuck in a small hole with the drift still around them. Five of them were still alive, but very weak as they only had lichen off the rock and a bit of diddle dee branch to eat. Dad got three to walk slowly away and carried the other two home to the yard. Fayan and I also dug out ten Hoggs that were near the settlement. On the Sunday we all went to check the ewes and Hoggs, but only had to save one Hogg, so we all went sleighing. We had not taken any sleighs or plastic so used on old airstrip marker. They go really fast! I am glad we were able to save a lot of sheep.

BRUCELLOSIS

Sue Harvey

There are several different strains of brucellosis bacteria, which effect different species in slightly different ways. This can lead to confusion when talking about "brucellosis". Of the 6 strains of Brucella, 3 are of importance to us in the Falkland Islands.

Brucella abortus

This is a disease of cattle, which classically causes abortion but also mammary infection. The veterinary services take blood from adult breeding cattle to test for this disease, at the same time as doing the tuberculosis testing. This disease has not been identified in the Falkland Islands, but until all cattle have been tested, *including any wild cattle,* we cannot be sure that the disease does not exist here. B. abortus can occasionally infect sheep. It causes a very nasty disease in humans, which can be difficult to diagnose, because of the vagueness of the symptoms, which include headaches, weakness, fever and nervous symptoms. Many vets have been infected while they were removing afterbirth from cows. Both the older vets in my first job had had the disease.

Brucella melitensis

This disease is associated with sheep and goats but can be a cause of cattle brucellosis. It is most common in the Mediterranean and Middle-Eastern countries. It causes abortion and testicular problems. This disease has never been diagnosed in the Falkland Islands and while it has been diagnosed in Chile, it has not been found in Northern Europe and Australasia where most of our sheep imports have come from. There is no reason to suspect this strain is present in the islands. Testing would be needed to confirm this.

Brucella ovis

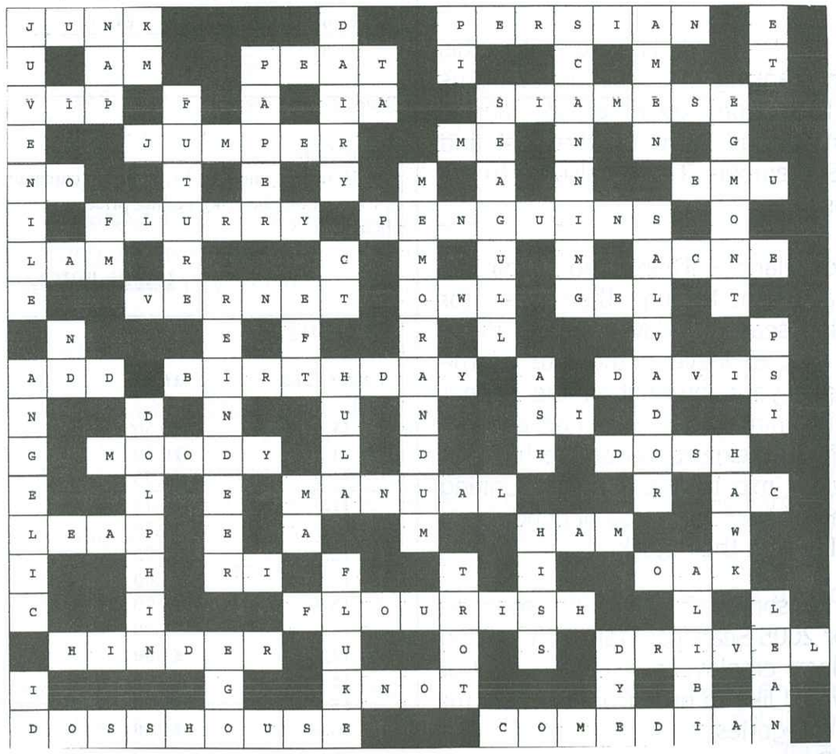
There has been an eradication program in the Falkland Islands for this disease. The last case was found in 1991 and it is believed to have been eradicated. It causes infertility in rams, infrequent abortions and weak lambs. The veterinary services test a selection of farms every year and all rams offered for sale from the National Stud Flock. The test involves taking a blood sample from all breeding rams.

Because of their importance to both human and animal health, brucellosis is of international importance. It is likely that any country importing any form of livestock, including semen or embryos from the Falklands, would require the Falklands to be free of Brucella abortus and melitensis. The property exporting the livestock would be expected to have been free from Brucella ovis for at least 3 years.

I strongly recommend all farmers to get both their sheep and cattle tested *especially* anyone even vaguely contemplating exporting animals even in the distant future. Rams can be tested at any time of year but it is simplest shortly after shearing when the blood vessels in the neck are the easier to find. Fine wool sheep need to have their necks shorn at other times of the year prior to blood sampling.

If anyone would like their rams or cattle tested for Brucellosis please contact Sue Harvey at the Veterinary Service either by phone 27366 or email sharvey@doa.gov.fk

LAST MONTH'S SOLUTION



TO ALL FARMERS

Please could all farmers send back empty DoA one tonne bags that we use to send seed out. The department is also missing all but one of our polystyrene inoculant boxes

FALKLAND ISLANDS MEAT COMPANY

Nikki Summers

Although John briefly introduced me in the last issue, most of you may already know me but for those who don't I'm sure if I mention my parents, (Teddy & Sybie!) this will give you a better idea.

I have joined as the administrator and my first month with FIMCo has been very busy moving the office functions from FIDC. I have set up the office and am getting to grips with the database, setting up being introduced to the accounts package, (my thanks goes to Amara with her on- going help and assistance with this) and preparing for the next export season. As John also mentioned, I am the main point of contact for all farmers and look forward to being in close contact with you all.

Camp Visits – I would like to take this opportunity in thanking the DOA for letting us accompany them on their gross margin workshops on various farms on the East and West during September. Thanks also go to the farmers themselves.

2005 Livestock Plans – Thanks go to all the farms that have sent through their plans for the forthcoming season. May I remind those who haven't, not to leave it too late as the sooner we have your information the sooner we can start planning the 2005 export season. As for dates for the export season we have an open window for mid to late January running through to end of April early May depending on farms' suitability with their stock.

2005 Export Season Staff – We will soon be advertising for 2005 Seasonal Staff with looking at recruiting local employees. To get a feel of interest we would like to hear from workers for the following categories:

- Boning
- Slaughtering
- Packing

For more details please contact the office.

SHEEP PRICES

WEIGHT	P/KG	BONUS	SHEEP £
Under 15kg	*Not paid for*		*£0.00*
15kg - 16.9kg		Flat rate	£2.00
17.0	£0.32		£5.44
18.0	£0.32		£5.76
18.9	£0.32		£6.05
19.0	**£0.32**	**£1.00**	**£7.08**
19.5	**£0.32**	**£1.00**	**£7.24**
20.0	**£0.32**	**£1.00**	**£7.40**
20.5	**£0.32**	**£1.00**	**£7.56**
21.0	**£0.32**	**£1.00**	**£7.72**
21.5	**£0.32**	**£1.00**	**£7.88**
22.0	**£0.32**	**£1.00**	**£8.04**
22.5	**£0.32**	**£1.00**	**£8.20**
23.0	**£0.32**	**£1.00**	**£8.36**
23.5	£0.32		£7.36
Over 23 kg - Flat Rate			*£7.36*

Please Note
1. A Bonus payment of £1.00 for all carcasses 19-22kg
2. Please note the 23kg ceiling price, and that the min flat rat changed

LAMB PRICES

WEIGHT	P/KG	LAMB £
Under 12kg	*£0.50*	
11.0	£0.50	£5.50
11.5	£0.50	£5.75
11.9	£0.50	£5.95
12.0	£0.75	£9.00
12.5	£0.75	£9.38
12.9	£0.75	£9.68
13.0	**£1.00**	**£13.00**
13.5	**£1.00**	**£13.50**
14.0	**£1.00**	**£14.00**
14.5	**£1.00**	**£14.50**
15.0	**£1.00**	**£15.00**
15.5	**£1.00**	**£15.50**
16.0	**£1.00**	**£16.00**
Over 13.0 kg	*£1.00*	

Please Note
1. Hogget's with permanent incisors that have erupted - will be classed as mutton.
2. Hogget's will be checked by Vet / Meat Inspector at the ti slaughter

Export prices

Lamb prices have been increased to £1.00 per Kilo for carcass weights 13kg and over. This creates a real opportunity for farmers to generate sustainable, short-term cash flows from their flock. Every farmer needs to evaluate this based on their own circumstances and the DoA would be pleased to help farmers evaluate this opportunity. With wool breeds, there is always the issue of whether lambs will put on fat or meat. This is not easy and all farmers looking to supply lambs should contact John Ferguson.

Mutton prices for target mutton in the carcass weight range of 19kg to 23kg have also been improved to 32p per kilo plus a £1 per head bonus.

I look forward to working with you and ensuring that the 2005 season is a success for FIMCo and farmers.

LETTER FROM ROBIN GOODWIN – BUYING AND SELLING FARM LAND – WHAT IS IT'S TRUE VALUE?

I notice that Councillor Mike Summers took the opportunity to raise this issue in your last months Wool Press. As we have some of our property on the market and the fact that Mike suggested to farmers to think about how much their farm may be worth, I would like to offer my views.

Firstly, I do not believe that any Farm can be valued just on it's wool clip alone as is currently the case regarding Green Field Farm. Just because a Farm only produces wool as the primary income, does not necessarily mean that it has no other value. What about the fixed assets? Would your property be worth more if you had 6 houses on it, because after all only the sheep produce the income?

For instance, what if a buyer purchased the Land on a sheep value, then promptly developed it into a vast Arable Farm or Tourist Venture. The first thing anyone would say to that is, "It's a new chap with forward thinking." I would disagree. The chances are the new owner has access to finances that the seller did not. So for argument's sake, our Farm at Green Field currently producing some £30,000 per annum from wool would be valued on that basis alone. But assuming I was operating fifteen hectares of my Farm to grow Potatoes that had an annual return of £60,000, then my farm would automatically have a higher added value to its potential sale.

So could I expect to receive the same asking price for that fifteen hectares of valuable land, as I would be asking for the 26,000 I have on offer. This example does not include plant and buildings. I wonder just how one derives a true value of Farmland using this formula. Would it be reasonable to assume that the fifteen hectares not already cultivated could have a much higher value before development? After all, it only requires some rotovation and a few thousand seed potatoes chucked in. The point I am trying to make is, would I not be better

selling multiple fifteen hectares as apposed to the large section? I do not believe that any calculations based on current performance will result in an accurate price for Farmland. Just like any other property, it sells on the day according to the potential buyer.

Mike made mention of another point; the possible lenders. He mentioned the FIG and the Bank as sources. Well, if my information is correct, the Bank does not any longer loan capital for the purchase of Farmland. There is only one possible source and that is FIG and if they say no, then it is virtually impossible to get a mortgage for farmland. Local people would find it near impossible to bring foreign money in.

I also wonder does the FIG also use the same proposals for calculating the profitability of the local business sector in the Town. An example being the Stanley Dairy. I believe that it is on offer for almost £400,000. If so, what method of valuating the property was used? It would not make good business sense to sell your property that you developed over many years for less than you actually paid for it. Would any individual sell their personal home for less than they bought it for? Not likely.

I would be very pleased to see how the FIG do arrive at Farmland values and hope they print the full details in the next edition of the Wool Press. That way we all know what might or might not be feasible. Our personal situation is that, if we do not receive the asking price for our section, we will not sell it. But we will change the operations from a sheep farm to that of an arable one. We could always work the fifteen hectares and let the rest go wild. That is not an ideal solution, but is an option. I also believe that a fifty-acre plot along the Darwin road fetches around £7,000 without sheep, leaving me to ponder how such a value is initiated.

LAND EARNING CAPACITY BASED ON PRODUCTIVUTY AND EARNING CAPABILITY

Mandy McLeod

Land Valuation and farm earning capacity is a very topical issue. It is believed important for farmers to be aware of the role that the DOA has in this area and just as importantly, to appreciate what the DOA does not do! The Department of Agriculture does not set or work on valuing farms, either for a seller or for a prospective buyer. The DoA offers a service that enables people to evaluate a farm's earning history and also, based on assumptions provided by the people involved, to assess the impact of any future potential changes considered possible. What use is made of the information provided is then up to the individuals concerned.

The DoA have been working on a model to work through the earning capability of land based on it's historical and current productivity, so that farmers can monitor their progress and hopefully make improvements to their profitability where possible. It looks simply at the 'grazing' derived income per hectare versus the costs of production. This estimate of earning capacity does not look at any fixed asset values or alternative and additional enterprises. Nor does it consider the buyer/seller market or security on loan issues that those interested in FARM VALUATION will do. The DoA's interest is one of assessing and improving productivity and profit. This model is supported by the Farming For Profit courses and workshops, as well as the Gross Margin Decision Support Software.

PHOSPHORUS FERTILISERS IN PERSPECTIVE

Stuart Doyle

Following on from nitrogen fertiliser, another important nutrient to consider when using fertilisers is Phosphorus (P). Phosphorus is critical in the plant for photosynthesis (the free production of sugar from sunlight), cell division, root growth and further to that the animal matter produced from plants (wool, meat and bone etc). For our systems here in the Falkland Islands P is very important in stimulating root growth in all plants and stimulating nodulation in legumes.

Soil P

The phosphorus (P) cycle (see over page) is quite different from the nitrogen cycle in that mechanisms for complete P loss from the cycle are minor. Remember that N can be lost from the cycle by leaching, de-nitrification and volatilisation. As can be seen in the diagram the main losses of P are the removal of plant material (and ultimately wool and meat) and erosion. Leaching may be a problem on peat soils but usually not to the same degree as N. As per Doug's article WP #174 much of applied P is 'fixed'.

The term 'Fixed' refers to the reduction of P solubility and therefore unavailability to plants (in effect locked in the soil). There are several mechanisms that cause P to move from the plant available orthophosphate (water-soluble) to other insoluble forms of P. Fixed P in the P cycle resides within the oval 'pools' (see cycle over page) – mineral surfaces, secondary compounds and organic matter.

Organic P refers to P tied up as a component of organic matter. That is, P as a component within the cells and waste materials of micro-organisms, plants and animals (livestock). This P 'pool' becomes available at a steady rate as decaying material breaks down (speeds and slows with temperature and moisture). This breakdown of organic substances to plant available P is known as mineralisation. Mineralisation can be difficult to predict, as normal P tests do not measure for 'organic' P, usually only plant available P is measured.

Mineral surfaces (soil particles) attract and 'fix' P in a similar fashion to a magnet attracting iron filings. All particles are electrically charged, and depending on the nutrient or soil type will attract or repel molecules in the soil solution. The type of soil (clay being able to strongly bind nutrients, sand weakly) the pH of the soil and the nutrient, affect the strength of these bonds. Phosphorus as an applied nutrient is prone to adsorption (attached but not absorbed) to clay particles (see cycle over page). The P adsorbed is not lost from the cycle, but will only become available when another nutrient with a stronger charge takes its place (for example calcium).

Secondary compound or precipitate P is a P pool that exists when phosphorus reacts chemically with calcium (Ca), iron (Fe), Manganese (Mn) and aluminium (Al) within the soil solution to form insoluble compounds. These compounds remain insoluble until a change in the soil solution (pH usually) allows them to be dissolved and release the P as plant available P. This 'pool' of P will differ greatly on peat and mineral soils as peat soils are less likely to have cations (Al, Fe, Ca, Mn) for the P to react with.

Fixed P is referred to as a 'loss' of P by many; this is not necessarily the case. 'Fixed' P is lost from the available P 'pool' in the soil solution, yet remains stored in the soil. Predicting when

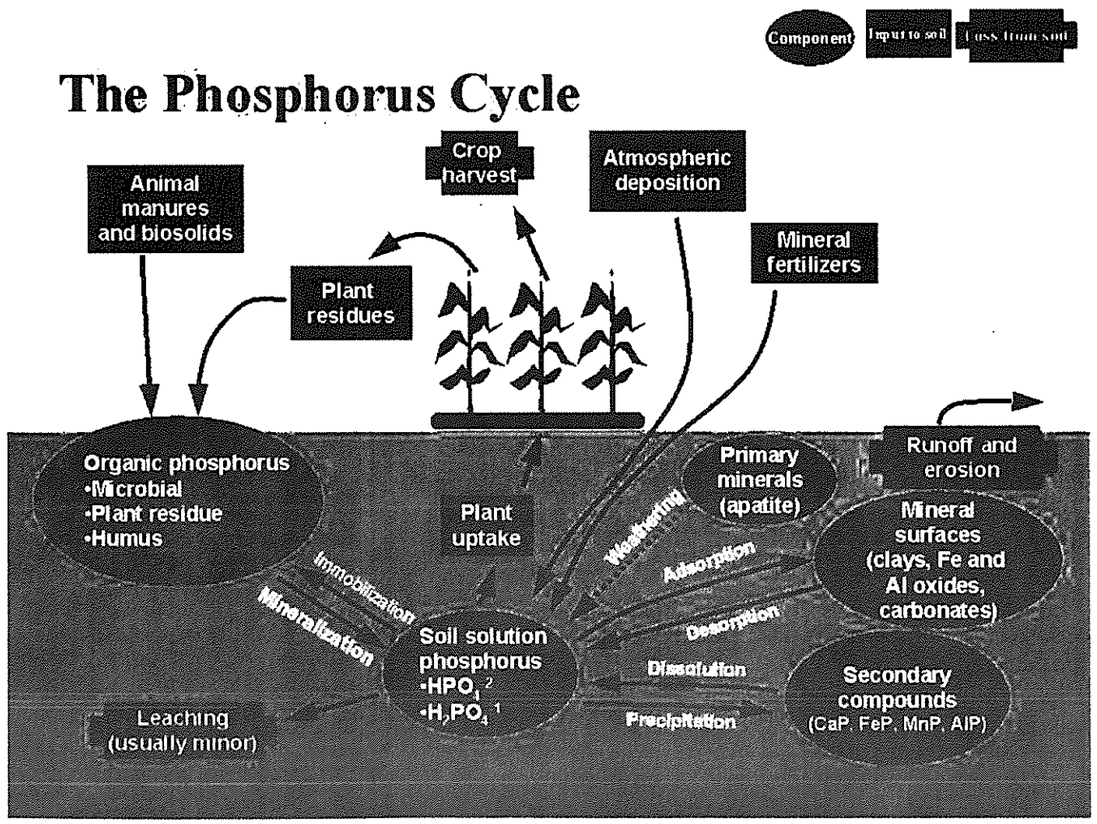
plants may access this 'fixed' P however is very difficult indeed as temperature, moisture, soil organisms and pH all change the mineralisation time.

A very small proportion of applied P (fertiliser) remains in the soil solution (available to plants), most, unfortunately is quickly changed (in a matter of days) to organic P, bound to minerals (clays) or forms compounds with calcium, manganese, aluminium or iron (see over Page). These reactions make most of the P applied unavailable to plants – but not lost from the cycle.

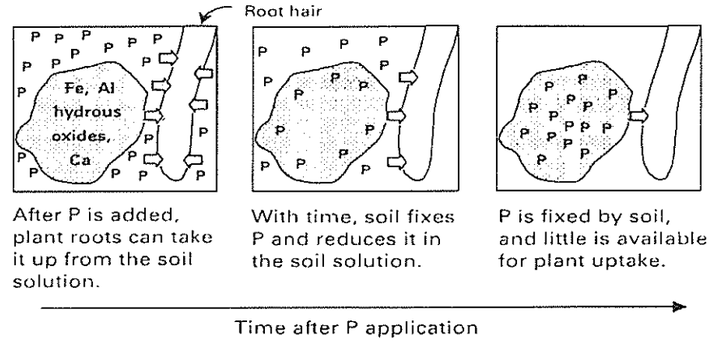
The type of P fertiliser used may have a large impact on where the applied P sits in the cycle and how long it will take to become available (if at all!).

Due to a lack of solubility and high reactivity with soil components P does not move far from where it is applied (see over page). Thus plant roots need to be healthy and able to explore the topsoil to be able to intercept soil P. This explains why plants often show P deficiency symptoms when cold, suffering from drought stress or when growing in very acid soil where the roots will not explore or have been destroyed. When inside the plant P is mobile – this is why symptoms appear in the oldest leaves first as the plant moves the P to the new growth.

The Phosphorus Cycle



Source: UNE. Australia



Source: PPI

The difficulty in managing P is that soil tests only indicate the plant available P – not the huge reserves of 'fixed' P. That is not to say that a total P test cannot be done. However it is difficult to estimate the time required for mineral and organic P to become plant available.

Fertiliser P

The majority of Phosphorus is applied in 3 forms, insoluble Tri-calcium Phosphate (rock Phosphate), mostly soluble mono-calcium phosphate (superphosphate, triple superphosphate etc), and the fully water soluble Ammonium Phosphates (DAP, MAP and blends). All three forms have characteristics that favour use in specific situations. Farmers should know the difference between the forms to find the correct fertiliser for their operation.

Tri-calcium Phosphate (Reactive Rock Phosphate [RRP]) is basically rock ground into fine particles for direct application of the minerals that it contains. This form of P is best used in areas with pH <5.5 and with rainfall > 750 mm. This is due to the need for an acid soil solution to chemically breakdown the mineral forms of P contained in the rock. RRP's are regarded as genuine 'slow release' fertilisers and as such should not be expected to release more than 30 % of applied P per year (depending on soil pH, fineness of RRP and adequate soil moisture). Ministry of Agriculture & Fisheries (MAF) research in NZ shows that RRP had a 4-6 year lag effect to achieve the same results as an equivalent amount of P applied as Triple superphosphate. MAF also found that organic matter seemed to 'coat' the raw mineral particles further slowing their conversion to available P. These characteristics point to RRP as a long term maintenance product that will slowly release P in the appropriate soil types. This type of P release would be suited to established pasture and maintenance P applications on acid soils.

Mono-calcium phosphate (superphosphate, triple superphosphate etc) is a mostly soluble form of phosphate, making the P almost instantly plant available upon dissolution in the soil. Unfortunately this also makes the P instantly exposed to cations, organic matter and soil particles that may 'fix' the applied P as soon as it is dissolved. However this may be managed by applying the fertiliser in a band rather than spreading. (A band is a concentrated strip drilled into the ground that has been shown to slow the fertiliser dissolution and therefore the rate of 'fixing')

As this form of P is a calcium phosphate there will be additional benefit on acid soils from the applied calcium (see table below). Fast availability makes this fertiliser suited to crop and pasture establishment and maintenance P applications.

The **Ammonium Phosphates (MAP / DAP/ Blends)** are the most soluble forms of P – being 100% water-soluble. This characteristic makes for a quick release of the fertiliser P. The ammonium (N) content of these fertilisers will have an acidifying effect on the soil. As the N dissolves it poses dangers at planting time as the ammonia when released can have damaging effects on germinating seed. **No more than 15 - 20 kg of N should be applied in contact with the seed for cereals and none with brassicas (110kg DAP or 165kg MAP).** Most fertiliser is spread pre-plant in the Falkland Islands so this should not be an issue.

Good solubility makes these types of fertiliser P useful for crop / pasture establishment however as with super phosphate there is the possibility of 'fixing' of P soon after application. This is one of the reasons that most quick acting P fertiliser should be applied as close to planting as possible. MAP and DAP are usually termed as 'starter' fertiliser due to their use as a P and N source at planting time. The N amount is usually nominal but enough to get the crop / pasture started.

P Fertiliser Cost Comparison to achieve 25 Kg of P / Ha.

Fertiliser	% P	Cost / Tonne (Stanley)	Other nutrients Added Kg/Ha	Product rate for 25 kg / Ha P	Cost / Ha of 25 KG P
NPK Blend (20:10:10)	4.4 %	£298	113 N, 47 K	568	£169
NPK Blend (14:14:11)	5.6 %	£298	62 N, 49 K	446	£133
MAP	21 %	£346	12 N	119	£40
DAP	20 %	£364	22.5 N	125	£45
Triple Super Phosphate	18 %	£335	19 Ca	139	£46.5
Roca Phosphorica	12.8 %	£323	68 Ca	195	£45
Rock Phosphate (DOA-BiFox)	8.1 %	£ 108	65 Ca,	309	£ 33

**The table above has been calculated using average prices taken in good faith. The purpose is to illustrate the difference between products – it is in no way a quote. Every attempt has been made to reflect realistic pricing of products from both the UK and Chile. Farmers should be aware that prices would vary on quantity, supplier and freight route used. 25 Kg of P was used to make a comparison with common RPR rates.*
If both N & P were required DAP may be cost effective as 22 KG N is supplied as well.

What rate of P is needed? This is a question that is yet to be answered for soil types in the Falklands. Many trails conducted over the years have shown variable responses to applied P. Is this due to the soil being relatively young and the organic pool needing to be 'filled' before the soil will allow soluble P to become available for plant uptake? Or a direct relationship between pH hampering root development and therefore preventing the uptake of P?

These are questions that require further investigation on Falkland soils. In trials on similar soils in the Waikato region of NZ, The NZ Ministry of Agriculture found that in excess of 100 kg / Ha of P was required to satisfy the organic pool. This equates to 1200 Kg of rock phosphate or 550 kg / ha of triple super – just to get the soil P levels to a point where applied P will become available.

These rates have not been tried in the Falkland Islands and the economics of such rates would be questionable.

Phosphorus Fertilisers in Perspective Take Home Message

- Choose the right fertiliser for the job! MAP, DAP and TSP may be the best solution for cropping as they are soluble and quick release, Rock phosphate may be a cost effective solution for maintenance P to enable the build up of soil P levels.
- Research and trials on peat and acid soils in other parts of the world have shown the need for large amounts (>100 Kg P/Ha – 1235 kg of RRP) of 'capital' P to be applied to move soil P to satisfactory levels.
- Peat soil and mineral soil will differ in response to fertiliser – soil test to gauge likely needs.
- Both water soluble and citrate soluble P are said to be plant available – these are important for annual plants –crops such as cereals & brassicas.
- For perennial crops / pastures it is less important for high solubility of P assuming that the P 'pool' is cycling sufficiently to supply the needs of the crop / pasture.
- Cost per unit of P is often the determining factor in fertiliser choice. Other considerations should be P solubility and ease of handling of the product.
- Applying P in Bands may delay 'fixing', giving the crop time to access the applied fertiliser P before it is 'fixed'.
- P availability will be influenced by soil temperature and soil moisture. When it is cold or dry plants will show signs of P deficiency.

- **Consider the supply of all nutrients – can a blend give you value when you require more than one nutrient (N & P & Ca)?**
- **Conduct on-farm trials – Try fertiliser strips to see what works commercially for you – Double and or halve recommended rates to test on farm performance in both crops & pastures**
- **Seek advice when using new fertiliser or fertilser placement or when trying a new crop.**

NOTICE

If anybody has an article or any recipes (especially Christmas recipes), that they would like to share with other readers, please email: phalliday@doa.gov.fk

HOLD THE PLANE - I'VE AN OPERATION TO FINISH!

Stephen Pointing

I usually leave it to Zoe to write about the odd and unusual experiences of everyday veterinary life but I thought I'd add my contribution this month after an unusual consultation in Ascension Island. As many of you will know I went on leave at the end of July and arrived back in the Falklands about a month later. About three weeks before going on leave I received a telephone call from a dog owner on Ascension Island. She was phoning to get some advice on a long-standing skin condition that her dog had been suffering from. I explained that it was difficult to make a diagnosis without actually seeing the patient and that I would actually be passing through Ascension about three weeks later. I would be happy to examine the dog during the short period that we were on the ground and, in the meantime, it would be useful if she and her husband could send me as much information as possible on the history of the condition. This she agreed to do and between the initial phone call and my departure three weeks later several e-mails had exchanged hands.

As any vet will tell you (including Zoe and Sue, no doubt) skin conditions are not the easiest to make a diagnosis on nor are they very easy to resolve. The owners explained that the dog had been suffering from the condition for well over a year and had been treated symptomatically with steroids, antibiotics and various types of shampoo. There is no veterinary service on Ascension but there is an ex veterinary nurse who runs an occasional clinic and carries out a wide variety of veterinary procedures. She, however, was stumped by what might be causing this particular skin condition. In spite of the extensive communication with the owners I was not entirely sure what might be causing the problem either so I went with the intention of carrying out some diagnostic tests and sending various samples to labs in the UK hoping that something obvious might turn up.

The northbound flight duly arrived on time in Ascension at about 9.30pm local time and having crossed the tarmac to the caged area I made myself known to the security officers and was ushered through to meet the dog owners on the other side of the immigration desk. They then drove me a short distance to the Engineering section alongside the runway where the dog was waiting in an improvised but very well set up operating theatre. Firstly I examined my patient during which I noticed several symptoms, which the owners had failed to fully divulge. Chief amongst these was the very large set of "balls" that the dog possessed and the rather pendulous prepuce. When asked about these the dog's male owner grinned slightly and admitted that he was rather proud about how well hung his 8-year-old dog was. His wife, however, said that she thought that there had been something not quite normal in that department but her husband had told her not to fuss. Having seen the dog I now had a good idea of what I might be dealing with and what had led to the long-standing skin problem (I should add here that the dog was practically bald all over and that the skin had become thickened and heavily pigmented). This dog was suffering from a Sertoli cell tumour of the testes and far from being a fine example of masculinity he was, in fact, showing several distinctly feminine characteristics. Sertoli cell tumours of the testes produce large amounts of oestrogen (the female hormone) rather than testosterone (the male hormone). As a result of all this circulating oestrogen the male dog gradually begins to develop several female characteristics. On closer examination this dog was found to have abnormally small testes contained within a very large scrotum and the prepuce was long and floppy resembling parts of the female genitalia. The dog had also put on a large amount of weight (females are particularly prone to this!) and the skin condition was almost certainly caused by the large

amounts of circulating oestrogen, which is known to inhibit hair growth and increase hair loss. The treatment of choice is castration. However, I hadn't gone prepared to carry out any operations of that sort so, having sedated the patient, I took a couple of skin biopsies, a deep skin scrape and a blood sample for thyroid function. Once we had the results from those samples we'd have a better idea of what we were dealing with and I told the owners that I could carry out the castration on the return journey five weeks later.

All the results came through during my leave period in the UK and, apart from the blood sample indicating a below normal level of thyroid function, the skin samples didn't reveal anything to suggest that the skin condition was caused by something other than high levels of circulating oestrogen.

The end of August saw me heading southwards back towards the Falkland Islands via Ascension Island. On the southbound journey you leave the UK close to midnight arriving in Ascension Island at about 8.30am. I arrived on Ascension Island having had my best journey ever from Brize Norton thanks to travelling in the business class section of Air Luxor (arranged by the dog's owner who managed to pull a few strings). My second visit to Ascension went even more smoothly than the first. We (meaning Hannah and me) were first off the plane and whisked off to the operating site in a military police land rover. Sarah had sent up a whole range of anaesthetics and other necessary items from the Falklands on a previous RAF flight and the local medical centre on Ascension provided all the operating equipment. We sedated the dog, had a cup of coffee while waiting for the sedative to take effect, and then gave the anaesthetic about 15 minutes later. The actual operation was quite straightforward and routine with Hannah acting as veterinary nurse. However, I could still have done with an hour and a half to complete everything in a leisurely manner whereas the re-fuelling process seems to be so streamlined these days that it was over in about one hour. Messages kept coming through saying that the plane was ready to board and had we nearly finished the operation. Fortunately we had, and having placed the final stitch, I cleaned up the wound, gave an injection of antibiotic and washed and dried my hands. Normally I would like to be around when the patient wakes up from the anaesthetic but, on this occasion, I simply didn't have the time. The dog was breathing well and everything appeared to be in good order. The police land rover was waiting outside so Hannah and I jumped in and were driven back to the bottom of the loading steps. We'd been the first off the plane and now we were the last on – but I don't think we'd been the cause of any undue delay.

That was all more than three weeks ago. The subsequent news has been good so far. The dog has made an uneventful recovery from the operation and is now being treated for his poor thyroid function. Hopefully, the circulating levels of oestrogen will have dropped dramatically but it will be some time before we see a marked improvement in skin condition and a reversal of feminine characteristics. The prognosis, however, is promising.

PHONE SURVEY OF FALKLAND ISLANDS CATTLE PRODUCERS. TO BE CARRIED OUT BY THE WORKING GROUP OF THE FALKLAND ISLANDS CATTLE BREEDERS ASSOCIATION.

Reason for Survey

To give those planning for the future of the Falkland Islands beef Industry some valuable feedback, as to where the future of beef production in the Islands is heading. Over the next few weeks, members of the FICBA working group will be contacting farmers that wish to take part in the survey, to ask the following questions.

(1) At present do you have a market for all you produce?

(1) YES. NO. Percentage approx

(2) Who should be responsible for researching new markets and opportunities for Falkland beef products?

(2) FARMERS, FIDC, FIMCo, FRESHCo, OTHER.

(3) Do you agree that the grading of beef cattle before slaughter, will improve the quality of the product being sold to consumers and in the long term, lead to an increased demand for local beef?

(3) YES. NO.

(4) Do you think the £1.45p per kg that is being paid out at present by FIMCo for animals up to four years old is:

(4) TOO HIGH. ABOUT RIGHT. TOO LOW

(5) Do you think this price structure should be tightened up in favour of superior animals, giving incentive to those farmers producing the better quality animals?

(5) YES. NO.

(6) If the quality and quantity of cattle available for slaughter should increase to a level where some form of export could be considered, what do you think the minimum price per kg that farmers would accept for livestock, in order to try and compete with world prices for meat would be?

Export is a big step that requires quality animals, consistent supply and a good price for the product. Amongst other things, we would have to tighten up on health and welfare of animals, traceability would be an important issue and most important of all, finding a market!

Working on current world export prices and current costs of production at the abattoir, this would see a return to farmers of 0.45p per kg (£117.00 per head on a 260 kg animal, dressed weight) Alternatively if **FIMCo** paid out at the proposed £1.45 per kg this would result in a loss

to **FIMCo** of £1.00 per kg (£260.00 per head) these are approximate figures, but they do highlight the need for a very good return on our product, before **Export** would become a viable option. (i.e. a niche market of some description, returning £2.50 to £3.00 a kg)

(6) MINIMUM PRICE .....

(7) Do you think all animals, should be on a register and checked for health?

(7) YES. NO.

(8) Do you think over a period of time all feral cattle should be utilised or destroyed?

(8) YES. NO.

(9) Do you think traceability is important?

(9) YES. NO.

(10) Do you see any future, in the sale of disease free genetics to other countries?

(10) YES. NO.

(11) Would you like to see a return visit from Gerald Fry and do you think the use of management tools like linear measurement, visual assessment, etc that are used by Gerald in his work, should be encouraged in the Falklands?

(11) YES. NO.

YOUR HERD DETAILS

(1) What are you doing at present? Stud, Finishing, Breeding or Both.

(1)

(2) What breed do you have?

(2)

(3) Will you stay with this breed, or change to something else? "What"

(3)

(4) How will you do this? Using local bulls, AI, Embryo, Live imports, other.

(4)

(5) How many breeding cows do you have?

(5)

(6) What is your average calving percentage?

(6)

(7) If there was an opportunity to sell more stock on a regular basis, i.e. export, how many cows or beef would you like to run?

(7)

(8) Now there is the potential to sell lamb through FIMCo, do you think this will have an effect on the number of cattle you will run in the future?

(8) Increase. Decrease. Stay the same.

The Falkland Islands Cattle Breeders Association would like to thank all those farmers who are prepared to take part in this survey.

MY MOVE TO THE MINERAL RESOURCES DEPARTMENT

Glynis King

As most of you will know by now I moved to an office within the Mineral Resources Department, situated across the road from the Post Office, in January of this year. I was asked if I would like to move down here as Phyl Rendell was taking on the role of Director. I agreed to the move as I was ready for a change plus Phyl and I work closely together on all administration matters and with Phyl based here it was the logical thing to do. It seems to be working very well working between the two Departments, but would welcome any feedback from anyone who feels that this is not so.

I still keep in close contact with my fellow workers at the Department of Agriculture on a day-to-day basis either by phone or visiting the Department to collect mail and deliver supplies/orders etc. also to help out with various tasks when needed.

I have found my workload has increased immensely and I have become a lot more involved with various agricultural matters, this has been very rewarding for me.

Some of my main duties are the issuing of burning permits, Labour Scheme, all accounting matters, i.e. payment of invoices and issuing of invoices from the department, Import Permits for fruit, vegetables & plants (frozen food, meat and dairy product applications must go to the Veterinary Section for a permit to be issued).

Should you have any enquiries on any of the above subjects please do not hesitate to contact me either by Tel: **27322** Fax: **27321** or email: gking@doa.gov.fk

I REMEMBER EWE (OR WHY SHEEP NEVER FORGET A FACE)

Source: Daily Mail

In times of trouble, it's good to have a familiar face to share your worries with. Especially if you're a sheep. Research shows that, just like humans, sheep recognise friendly faces and this helps comfort them when they are stressed.

Scientists found that when sheep are left isolated, showing them another sheep's face calms them down. But the face of a goat, which may appear fairly similar to humans, has little effect.

Experts at the Babraham Institute, near Cambridge, say the findings add to evidence that sheep and humans have 'remarkably similar' brains. Lead researcher Dr Keith Kendrick said: "It seems sheep, like humans, may find the sight of familiar faces comforting in times of stress or, at the very least, a positive distraction."

Studies have already shown sheep have a strong memory for faces – they can recognise up to 50 friends in a flock and ten human faces and remember them for up to two years.

MOUSSAKA (Serves 6-8)

Ingredients

2 large aubergines
3 onions
16 fl oz passata
2 tsp dried oregano
1 ½ lb mince meat
3 cloves garlic
¼ pint red wine
salt & pepper
1 ½ oz plain flour
2 tblsp tomato puree
chopped parsley

Method

- Sprinkle salt on aubergine and stand for 30 minutes
- Fry meat then add onions, garlic and flour and cook for 1 minute
- Add passata, wine, tomato puree, oregano, salt and pepper
- Bring to the boil, cover and simmer for 20 minutes
- Rinse aubergine and pat dry
- Brush with oil and cook under hot grill for 5-6 minutes
- Make cheese sauce
- Add mustard, nutmeg, salt and pepper
- Leave to cook then stir in egg
- Spoon ½ of meat mix into dish
- Top with ½ of aubergines
- Pour over cheese sauce
- Repeat with other ½
- Cook in oven for 45 minutes

BREEDING PRINCIPLES TO MAXIMISE SHEEP REPRODUCTION

Damien O' Sullivan

Most people are well aware of the basic breeding principals (particularly those of you who have attended Grazing for Profit and farming for Profit courses) but it is often useful to re-visit them and just see where our planning is going. The main principles are:

1. Breeding season no greater than 60 days
2. Ewes gaining weight 2 weeks before joining
3. Ewes in body condition score of 3 or better at lambing
5. Rams checked for soundness/ram effect
6. Sound genetics

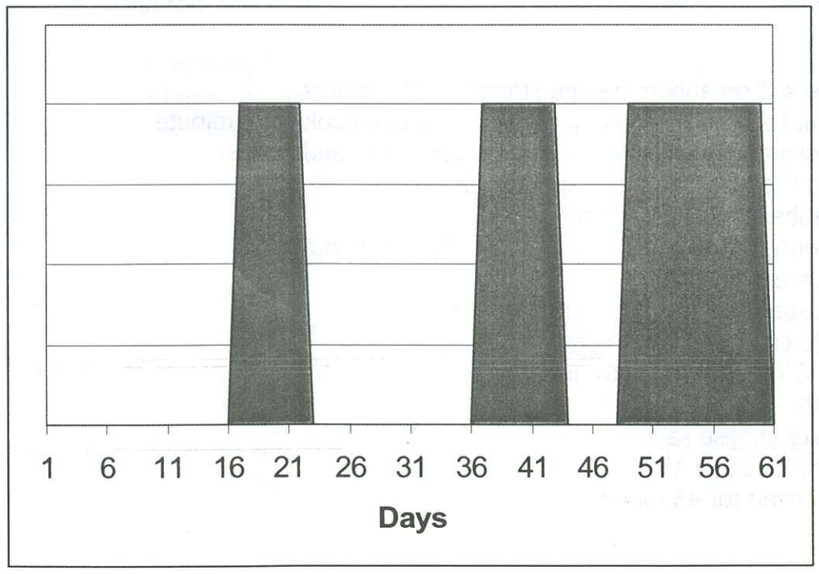
In this series of articles we will consider one of the breeding principles each month.

1. Joining season: no greater than 60 days

The joining period needs to be long enough to give all ewes a chance of getting in lamb, yet short enough to allow other management practices to be carried out on time. A ewe's oestrus cycle occurs on average every 17-18 days with a range of 16 to 20 days. If we have a 60-day joining period it allows ewes the opportunity to cycle 3 times. (See Graph No. 1.)

Graph 1: Ewes cycling time

Mature ewes are on heat for an average of 24 hrs with a range of 12 to 36 hrs. In most cases this is ample time for mating if there are adequate ram numbers. However with two tooth ewes the heat period may be as short as ½ an hour so this must be taken into consideration when planning a joining program with maidens.



Aim for an optimum joining period of 42 days. If good conception rates cannot be regularly achieved from a 6 to 8 week joining, it will be because of problems occurring elsewhere in the management system. For example:

- nutrition of rams & ewe
- infertility diseases.
- stress affecting ovulation rate

A reduced joining season will allow lambs to grow out and be weaned 5 to 17 weeks before next joining. This will give the ewe adequate time to regain bodyweight. In contrast a 10-week joining period will mean that some ewes will have a 3-week period of lactation overlapping the next joining period. A ewe lambing at a the end of a 10 week lambing is unlikely to have a lamb that can be successfully weaned and most likely will not go in lamb next year. See Table: 1.

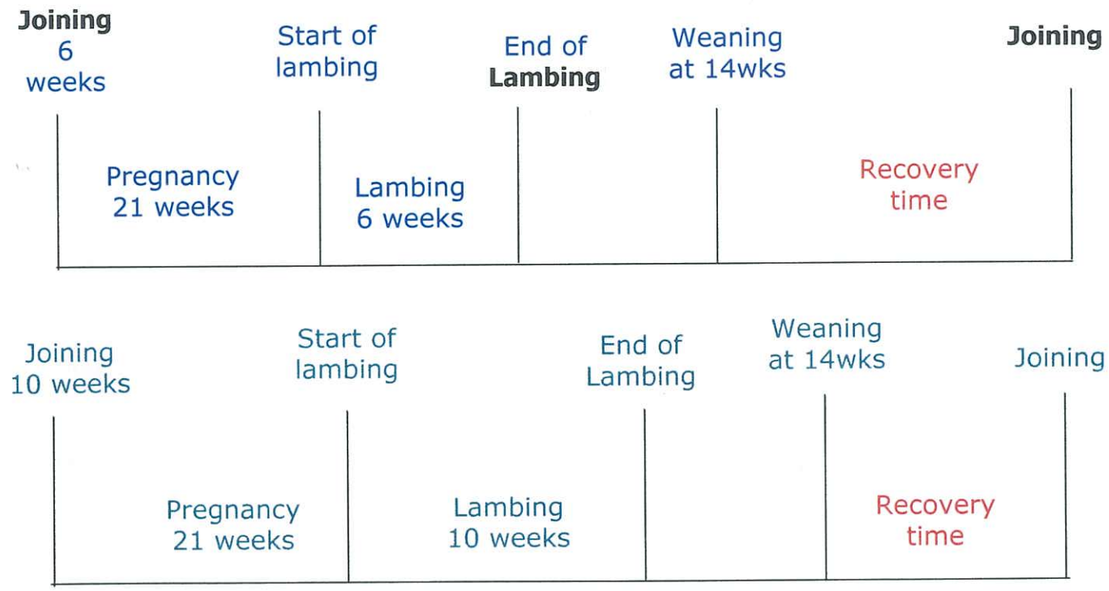


Table 1: Possible recovery time for ewes depending on lactation period

So why keep joining to 60 days?

- longer periods interfere with shearing, lambing
- it reduces the large variation in lamb size at lamb marking & weaning
- there is less chance of fertile ram lambs
- there are better lamb survival rates
- more time for ewe recovery after weaning.

Next month we will cover the benefits of 2. Ewes gaining weight 2 weeks before joining

NEW COMPUTER VIRUSES

Mike Tyson Virus
Quits after two bytes. Spits everything out.

Ronald Reagan Virus
Saves your data, but forgets where it is stored.

Titanic Virus
Your whole computer goes down.

Kenneth Starr Virus
Completely examines every aspect of your computer, then compiles a complex report that discredits every aspect of your computer.

Disney Virus
Everything in your computer goes goofy.

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

Dr Jack Kevorkian Virus
Deletes all old files.

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

Arnold Schwarzeneggar Virus
Terminates zome viles, leaves, bit it vill be baack.

A MERINO GOOD ENOUGH TO EAT

Source: Sheep CRC Media Release 17th August 2004

The search is on for dual purpose Merino sheep capable of producing both premium wool and quality meat.

The Australian Sheep Industry Cooperative Research Centre project reflects a growing trend by wool producers to cash in on high meat prices. The project is being carried out jointly with Meat and Livestock Australia and Australian Wool Innovation.

It is part of a major new wool science and production programme developed under the direction of Dr Ken Geenty who has been recruited from New Zealand.

Dr Geenty has joined CSIRO Livestock Industries at Armidale in NSW, brining with him more than 25 years experience as a government scientist and Manager of Research and Development with the New Zealand Wool Board.

He said the selection of Merinos with superior meat traits would offer producers an alternative to cross breeding for prime lamb production.

"With the swing in emphasis to meat production, about 50% of all Merino ewes have been mated with specialist meat breeds in the past year," Dr Geenty said.

"Together with a decline in total sheep numbers to below 100 million, this trend has serious implications for the future of the Australian wool industry," Dr Geenty said.

Fewer purebred Merino matings reduced the opportunity for genetic improvement and compromised the quality of the national wool clip.

Dr Geenty said there was enormous variation in meat potential across the Merino flock.

Part of the research will include analysis of about 25 selected flocks across the country for both wool and meat traits. Integrated on-farm meat and wool case studies will include an economic analysis.

"We will target 20 superior flocks with about 300 yearling rams or ewes from each flock having wool fibre profile and muscle scan measurements collected for analysis, totalling about 6000 animals in all."

"We want to identify animals with superior meat characteristics without compromising wool quality. This is work which has not been done in Australia before.

"It is possible that high quality dual purpose Merinos could be equally or more profitable than using a terminal meat sire over Merino ewes."

Dr Geenty said market discrimination against pure Merino meat would be a challenge to overcome.

Merino lambs up to 18 kilos had returned about 85% of the price of crossbred lambs over the past two years. However at heavier carcass weights around 25 kilos the difference in price was only 5%.

Dr Geenty said the new emphasis on prime lamb production meant fewer wethers were now being carried for wool production.

As a result, a higher proportion of Merino wool was coming from ewes and this was affecting the staple strength of the clip. Low staple strength attracted price penalties especially in superfine wool categories.

Dr Geenty said staple strength was moderately heritable and very responsive to environmental influences including nutrition and the physiological state of the animal.

"We will therefore be undertaking research to determine critical pasture requirements and animal parameters needed to produce quality wool and optimise prices received," Dr Geenty said.

The Wool Press

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AUTHOR	DAISY	HEDGEHOG	MILK
BABY	EMAIL	INK	MIRROR
BOOK	EYE	INTERNET	PIG
BURGER	FEAR	KITTEN	ROSE
CHEESE	FLOWER	LETTER	SCRAPS
CHIPS	FOOD	LINK	STY
CREAM	HAY	LISTEN	WAITER

** Words can go up, down, across, diagonally or backwords*

EDITORIAL

The last month or two has been quite hectic for everyone involved in Agriculture in the Falkland Islands. Preparation for shearing, regular farm maintenance tasks, in addition to completion of PIP plans all required considerable time input. As an aside, a total of 48 farms completed their PIP plans with several more farms expressing interest in the programme but waiting until next year to lodge plans because they are above current funding thresholds.

It is hoped that this edition of the Wool Press will contain enough information to give everyone something of interest to read and something to 'ponder' during the hours when some rest is possible.

As usual, the Wool Press has a good mix of material, ranging from light-hearted general information right up to quite technical research material. Grazing management, rotational grazing, scrapie disease, soil and plant nutrients, mites in pasture plus a whole range of other topics are all covered.

All articles are commended for your attention. However, of particular relevance at the moment, are the articles from Robert Hall on 'Black Spot Wool' and an article reproduced from the Sheep CRC in Australia. The article from the Sheep CRC outlines research being undertaken that will hopefully lead to the development of testing protocols that will allow carriers of black wool genes to be identified and removed from breeding flocks. Robert Hall presents a common sense approach that will reduce the risk of black wool contamination in the Falkland Islands clip right now.

The approach to handling the occurrence of 'black wool', as outlined by Robert is endorsed by the DoA.

All the best for another month

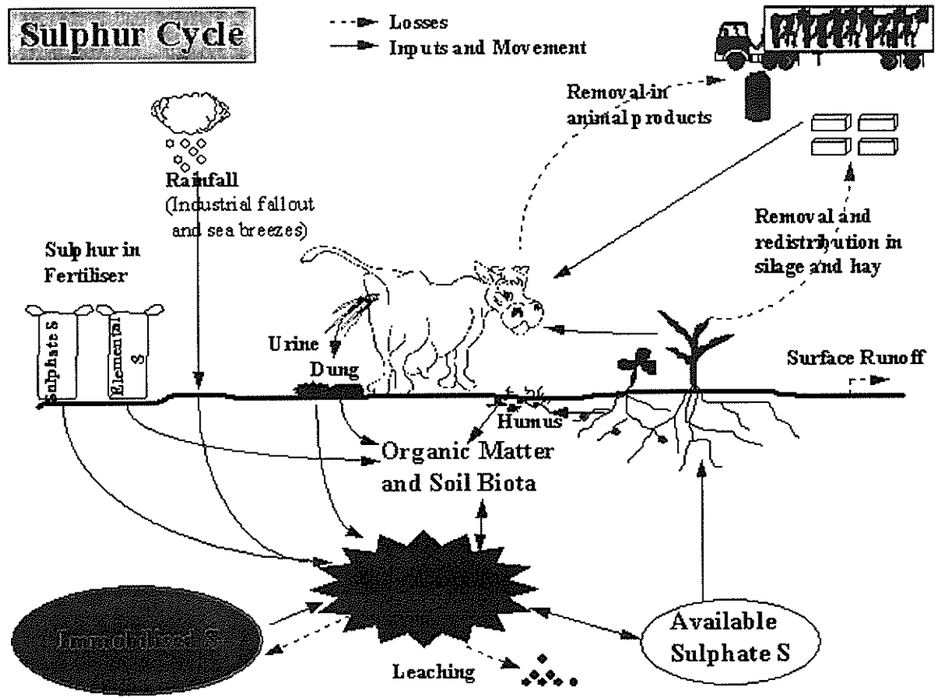
Neil Judd
Senior Agricultural Advisor

GRAZING MANAGEMENT PART II, SOIL & PLANT NUTRIENTS

Doug Martin

THE SULPHUR CYCLE

Significant amounts of sulphur are removed through wool, meat and plants harvested for hay and silage. In the past, sulphur deficiencies have been rare because most farmers used low-analysis fertilisers, such as single superphosphate, which contains high levels of sulphur (11%). However, if high-analysis fertilisers, such as triple superphosphate and DAP are used, then the potential for sulphur deficiencies may increase because these fertilisers contain much lower levels of sulphur. For example, triple superphosphate contains only 1.5% S.



Most sulphur in soils is held by the organic matter and must be mineralised (converted to the inorganic sulphate form, SO_4^-), before it can be used by the plants. In this form, it is very soluble and may be more readily leached. In some soils, the sulphate is adsorbed on (fixed to) soil particles, which reduces leaching. This adsorbed sulphur becomes available as it is released back into the soil solution.

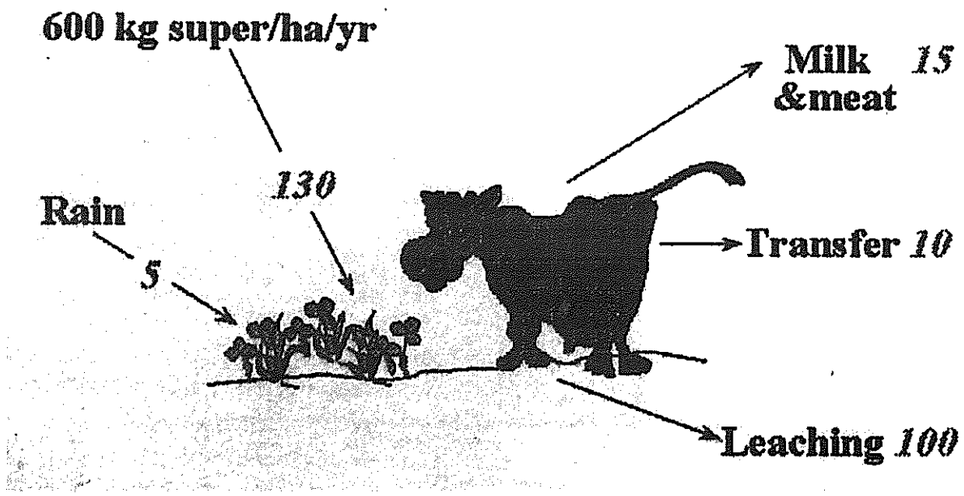
Forms of sulphate

Two forms of sulphur are used in fertilisers. These forms of sulphur are sulphate sulphur (SO_4^-); such as in superphosphate, and elemental sulphur (Se), such as used in the Gold-Phos range of products. Sulphate sulphur (SO_4^-) is readily available for plant uptake and more effective on very low sulphur soils. The elemental form must be converted to the sulphate form before it is readily available to the plant. Therefore, this more slowly available

form of sulphur (in other words, Se) may be more suitable on sandy soils that have less organic matter and are susceptible to leaching. Where a soil test reveals a sulphur deficiency, then the sulphate form (SO_4^-) will provide a quicker response. If sulphur levels are high, then it is usually a lower-cost option to use a low sulphur fertiliser blend, such as Triple Superphosphate.

CALCIUM

Soils low in calcium usually have associated adverse conditions, such as low pH and high aluminium, iron, and manganese. In very rare situations, heavy applications of potassium may induce a calcium deficiency, particularly on very acid soils. Deficiency symptoms can also occur in strongly acidic peaty soils, where the calcium content may be less than 0.1%.



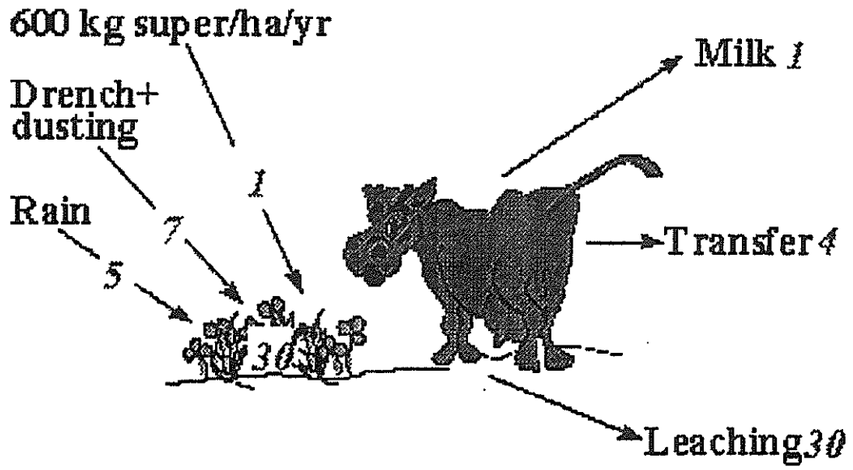
MAGNESIUM

As with calcium, magnesium plays an important role in the action exchange capacity in the soil. However, magnesium is more exchangeable than calcium, and the magnesium ion is more soluble and susceptible to leaching.

Animal health implications

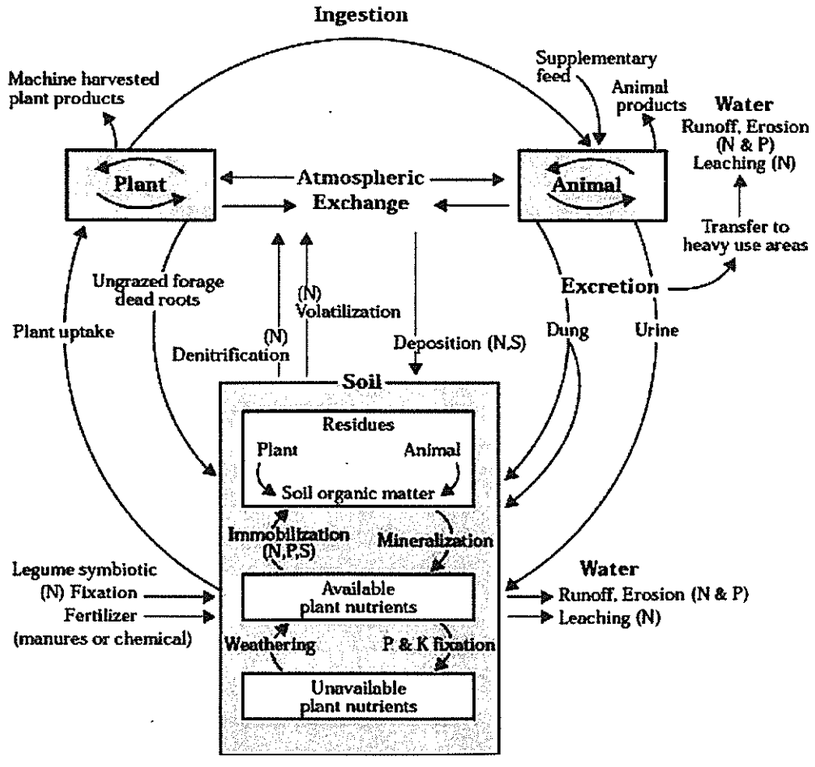
In most pasture situations, magnesium is present in adequate quantities for plant growth. However, the level of magnesium in the grass may be too low to meet the animal's requirements and may lead to a condition known as grass tetany. Pasture magnesium levels are highest in summer and lowest in late winter and early spring. Grasses, which contain less magnesium than clovers do over most of the year, are usually dominant in late winter and early spring. Thus, grass tetany has typically occurred in late winter and early spring.

However, high application rates of potassium fertilisers can cause a low plant magnesium level and so may induce grass tetany, particularly in dairy cattle. With farmers applying more potassium and potassium blends in early spring, there appears to be anecdotal evidence that grass tetany is becoming more prevalent in the following autumn. The cation exchange section of your soil tests can be used to determine the ratio of magnesium to potassium in the tested paddocks.



Nutrient Cycling Model

Nutrient cycling in a pasture ecosystem (adapted from Barnes. et al. 1995)



USEFUL WEBSITES

http://www.abc.net.au/rural

http://www.sheepcrc.org.au/articles.php?rc=1

http://www.farmingsolutions.org/

Don't forget the Department of Agriculture website: www.fiagriculture.doa.gov.fk
The website is regularly updated with new information.

ANOTHER SHEARING RECORD

Source: Farmonline.com 20th October 2004

Esperance based shearer Dwayne Black set a nine-hour shearing record recently. The 31-year-old Western Australian managed to shear 664 merino lambs in the time.

During the course of his day, he handled more than 16.5 tonnes of sheep, harvesting the wool from lambs in an average of 48.8 seconds each. The new record brings his tally to three.

Two years ago Dwayne set an eight-hour world record when he shore 570 lambs. That effort was also part of a two-stand merino lamb record setting shear of 1079 with another Kiwi, Troy Stansbury of Opotiki.

ANIMAL MOVEMENT TAGS

Just a quick reminder to farmers that all movement tags should be ordered from Sarah at the Veterinary Services Section (and as far in advance as possible, to ensure tags catch aircraft, etc.).

For those of you on West Falkland, a small supply of tags will be kept with Jimmy Forster at Bold Cove. Should you find that you don't have enough tags for the number of sheep being moved, or have forgotten to order them in time, tags can be sought from Jimmy as an emergency only.

To order your tags please call the Veterinary Service on 27366 or email sbowles@doa.gov.fk

MITES ARE ACTIVE AGAIN THIS SPRING.

Stuart Doyle

Red legged earth mite -RLEM - (*Halotydeus destructor*) and Blue oat mite -BOM (*Penthaleus major*)

A short reminder to farmers with locked up greens and improved pastures – Do you have any mite damage?

As stated in last year's wool press article on the topic, mites cause millions of pounds of damage to crops and pastures worldwide both reducing the plant stands at establishment and reducing the dry matter production of affected plants.

Andrew Pollard and I identified mites active in Stanley on some longer grass and causing significant damage. The mites we found were Red Legged Earth Mite (RLEM) – see right below.

BOM on the Left and RLEM on the Right.

Where to Look

- Pastures at most risk to RLEM or BOM damage are those with high populations and longer leaf blades due to under-grazing.
- Legumes or Brassica crops sown into grass previously infested (settlement paddocks etc)
- Carefully open the sward and look closely around the lower parts of the plant – **remember these pests are tiny – the size of a sand grain – Yet in numbers can cause significant losses of pasture production.**
- Look early in the morning or late afternoon.
- Look for the tell tale burnt tips of the pasture grasses and general ill thrift in patches of grass – (We observed particular damage to 'Yorkshire Fog')
- **Refer to Wool Press article Sept / Oct 2003 for more info.**

HI FROM AUSTRALIA

Sam Davies

Hi all! Since my last article I have lots to tell you. Kim and I are now starting our ninth month away from home. This year has gone so fast that it is very scary! We will be home again in no time.

Kim and I have been very busy these last three weeks. We have been on holiday and decided to stay here at college. We were asked to feed the large stock of animals on college campus. This is basically just putting out a bale, oats or sorghum when needed, or supplement feeds. One very common supplement that we have to put out is called 'copra' it is the extract of coconut and is a conditioner. It tastes good too, not that I have tried it.... We have also been busy making 'mixes', up to the weight of a couple of tonne. In the majority of paddocks there are self-feeders. The mixes vary depending on what stock it is issued to. Most mixes contain lime, urea, bentonite, salt, copra, chaffed hay, sorghum grain and trace mineral mix. It is very interesting and I enjoy it.

One day Kim and I were out doing the usual paddock checks, to see if everything was alright and make sure there was plenty of water for the livestock. From a distance I saw what looked like camels, I didn't say anything to Kim at this point, as I thought it might have been dead trees, and didn't want to make myself look silly. As we got closer I couldn't believe my eyes - in the neighbours paddock there were at least fifty camels! We both looked at each other in disbelief, very amazed and shocked by what we saw! We found out later that the growers put camels in their paddocks to eat away the prickly bushes. The prickly bushes can kill sheep if they eat too much and it adds a lot of vegetable matter to the wool. (Trust me on that one, when we were shearing I had a lot of prickles in my hands!)

A few weeks ago my section was slaughtering and butchering. I enjoyed it a lot. I have always liked getting messy! I learnt how to make sausages and all of the butcher's cuts, and roll roasts. We had to wear hairnets, steel aprons, plastic aprons, wellies and a belt and pouch for our knives and steel.

When the college sheep wore shorn we had to commute every day to the college property 'Manningham'. On the way back in the afternoons there were always wild pigs in the scrub just off the road. This always ended up in a ritual hunt for them, so I experienced pig chasing for the first time! There were some laughs and pigs always got caught! Some people make a living off catching wild pigs; it is a delicacy overseas to eat game pig. It is also very good money - the catcher gets paid by the kilo. Roo (kangaroo) shooting is popular around these parts too, it's exported overseas and again the shooter is paid by the kilo.

POISONS AND PAPERS

Zoe Luxton

There are obviously several things it would be unwise to let your pet digest. Acid, bleach and anything with an electrical current running through it for starters, but there are some "innocent" things that could land your puss or pooch in trouble. Dogs, for example, mustn't eat much chocolate, currents or raisins nor have ibuprofen. Cats mustn't have paracetamol or too much commercial dog food. We have had a couple of cases recently of thieving pets that ended up wishing they had just stuck to the pedigree chum.

"Frankie" is a gorgeous 8-month-old Husky who decided it would be a good idea to chew up a box of Ibuprofen. Luckily his owner noticed and rang the vets immediately and within 40 minutes of Frankie ingesting the tablets, lucky old Claire was shoving soda crystals down Frankie with the intention of causing a lot of vomiting. Frankie was extremely obliging!

If it is over 1-2 hours since the animal ate the "poison" it is not worth making them vomit. There are some caustic things that you do not want to cause further damage coming back up, but getting rid of the ibuprofen in his gut was just what Frankie needed.

Frankie was a bit sick for the next couple of days but a blood test proved his kidneys were ok and he is fine. There is a fabulous invention called the Veterinary Poisons Investigation Service (or something) that is always at the end of the phone in such a crisis. They can tell you what might be a problem and what won't and they know what antidotes and treatments to dish out (anti-sickness drugs and gut protectors in Frankie's case).

You do get some odd "my dogs just eaten....." cases. A common one is, "my dogs just eaten a packet of my contraceptive pills" (buy a pram?). We have also had, "my dogs just eaten a tissue with nail varnish remover on it" (don't let him light up a cigarette?). "My dogs just licked my leg that had Immac on it" (he will have a v. smooth tongue?) and finally, "my dogs just eaten my pills that control my schizophrenia" (maybe you should be ringing your psychiatrist instead of us?). All the above dogs were absolutely fine but we have one poor dog with us at the moment that really is not.

This morning he ate a cold pack that one generally applies to sprained wrists and ankles rather than Labrador stomachs. A swift call to the VPIS established that it generally is not a problem, sometimes dogs are a bit sick but fine otherwise apart from one dog that started fitting and had to be euthanased. Unfortunately our poor dog is shaping up to be number 2 in the "not surviving eating a cold-pack" stakes. He is vomiting and vomiting and his nervous system is giving up to the extent he can't stand on his own anymore. Sadly if there is no obvious improvement come morning we will have to call it a day. It really brings home to you how "child proof" your house must be if you have animals. These people are going to be devastated if they lose their dog – imagine if it was their 18month old child that they caught sucking on the cold pack??

A smidge of cheerfulness comes in the shape of a cat named Sam. The RSPCA brought him in having retrieved him from under the bonnet of a car of a poor bloke who was just trying to visit his mate on the Felixstowe Road but was slowed down by a smell of burning coming

from his car. Nicknamed "Lucky" he was badly singed but otherwise ok. The RSPCA was very excited about this, called the paper, and yours truly was on page 3 of the Evening Star clutching a cat that smelt of burnt hair. They were hoping that the cat's owner would see the newspaper and luckily for "Lucky" his mum did come to reclaim him. Unluckily for Lucky, although his skin was not obviously burned red raw it has been thermally damaged because it has now gone very hard in places and is starting to split and slough which is causing us all sorts of headaches. I'll keep you posted but don't think I'll let the paparazzi know!

BREEDING PRINCIPLES TO MAXIMISE SHEEP REPRODUCTION

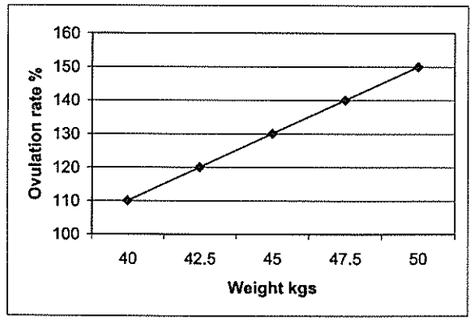
Damien O' Sullivan

This article continues our series on breeding principles to maximise sheep production. There is no doubt many of these are difficult to implement but they are something to aim for.

A Summary

1. Breeding season no greater than 60 days
2. Ewes gaining weight 2 weeks before joining
3. Ewes in body condition score of 3 or better at lambing
5. Rams checked for soundness/ram effect
6. Sound genetics

2. Ewes gaining weight: two weeks before joining



Ewes can lose up to 2 fat scores during lactation. After weaning, manage ewes according to bodyweight with light ewes given access to better feed so they can attain the correct weight at joining. Maiden ewes need to be about 40kg for their first joining. Overall a ewe body condition score (BCS) of 3+ is ideal. Research work has shown that BCS is directly related to the ovulation rate of ewes. For every 1kg increase in bodyweight there is an average 4% increase in ovulation rate. See Graph 2.

Graph 2: Relationship of ewe weight to ovulation rate

3. Ewes in BCS 3 or better at lambing

Ewe body weights need to be maintained or at worst, bodyweight losses minimised during pregnancy. At lambing time the weight of ewes should be around the 40kg+ mark or BCS 3 with the ideal being around or approaching BCS 4. (See Diagram: 1) However over fat ewes with a BCS score greater than 4 can have problems lambing due to fat.

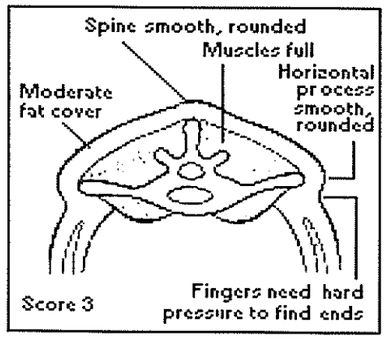


Diagram 1: Body Condition Score 3

Ewe weights/BCS during pregnancy and lambing have a crucial affect on:

- **Lamb birth weight**

A lamb with a birth weight of less than 3.0 to 3.5 kgs will find it difficult to survive.

- **Fat reserve of lamb when born.**

The fat reserve of the lamb as it is born determines how well it can survive adverse weather conditions. A well-nourished ewe will produce a lamb with a reserve of brown fat. This store of fat is easily metabolised by the body directly into heat when needed by the lamb. As this brown fat store is used it is not replaced.

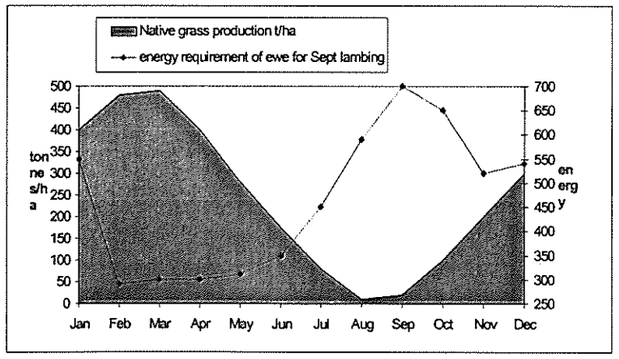
- **Mothering ability of ewe.**

A ewe that is in poor condition is unlikely to show strong maternal behaviour, feed and shelter a lamb. Studies have shown that a ewe with a low maternal weight will spend less time licking a newborn lamb and the low birth weight lamb takes longer to stand and sucks less frequently.

- **Ewes colostrum and milk supply**

A ewe's quantity of colostrum and total milk supply is dictated by her bodyweight. In addition her body weight affects the speed of colostrum release to the lamb. Early colostrum release, which is of great benefit to the lamb, is much greater in well-nourished ewes. For a lamb to make use of its brown fat supply it needs adequate colostrum from the ewe to start the metabolic process of brown fat breakdown when it is needed.

Graph 2: Ewes energy requirements and dry matter available



Ewes need to be lambing when feed is appropriate to their needs. A ewe and lambs maximum needs occur 2 weeks after birth. (See Graph 2).

The importance of ewe weight before lambing is demonstrated by the results of Falkland Island trials done by Niilo Gobius. He found these direct relationships between BCS and lamb marking.

- Live weight before lambing affects marking %

  30-32kg ewe = 20% marking

  40-42kg ewe = 60% marking

- BCS before lambing affects marking %

  BCS 1.5 = 30% marking

  BCS 3 = 65% marking

- Gains or losses in bodyweight affect marking %

  7to 10kgs loss in body weight = 35% marking

  0kg to 2.5kg gain in body weight = 60% marking

INFORMATION ON HORSES HOOVES NEEDED

Jane Kempton

As you will see above, my name is Jane Kempton. I am researching the shape of wild horses/donkeys hooves as well as the hooves of equines in human service. As the Falklands are not in the 'mainstream' of the equine world (lucky you!), I am very interested in the shape of the hooves of horses on the islands, their lifestyle, usage and any common ailments. Any information, photos or further correspondence with owners would be very helpful.

The reason:

There is a huge debate raging around the horse world at present about hoof shape and barefoot horses. Anything alternative and 'natural' is very much in fashion at present, and while I agree that correct environmental conditions are essential for any form of life to survive, this doesn't mean that all 'natural' things are good. There are some very poisonous plants that grow here in the UK completely naturally!

I will state here that I am very pro barefoot horses and will never have any horse I own shod again. However, the debate about hoof shape is one that carries on. I often hear it said that hooves should be trimmed to 'the wild horse shape'. Which wild horse? Desert Mustangs, Australian Brumbies, Namibian thoroughbreds? So on that basis I decided to do some research about some of the less well known equine areas of the world and see how their horses fared. Horses, ponies, donkeys and zebras all have the same hoof function but widely different shaped feet. The shaping comes from the environment in which they live. I have heard it said in almost every country that barefoot could not happen successfully there. Yet, there are wild herds living in much harsher conditions than their domesticated cousins are and these horses are not suffering from the same ailments that the pampered domestic ones do. No one attends to their feet in the wild!

So, if any of the farmers on the Falklands would be able to spare the time to contribute their experiences of lameness or hoof ailments. I would like to be able to collect a dossier of equine feet and environmental conditions in every corner of the globe. This would enable us to build up a proper picture of the equine hoof and its function and thereby increase our knowledge for not only curing hoof problems but also preventing them in the first place. If you would like to get in contact with me my email address is:
wedolene@aol.com

ARTICLES

Do you want to buy or sell something? Maybe you want to write a letter about a certain subject? Or maybe you would like to write an article about your farm and what you have been up to over the past few months. The kids might like to write an article about what they have been helping you with over the holidays or weekends. If any of the above has caught your eye (or maybe you have your own idea for an article), then why not have a go and email it to Priscilla phalliday@doa.gov.fk

SHEEP WIND CHILL

By Jay Merrell Principal Met Officer & Damien O'Sullivan DoA

A reminder on the sheep wind chill levels:

Sheep Wind Chill	
Forecast	**Risk to newly shorn sheep**
Less than 70	Low
70 to 79	Moderate
80 to 89	Danger
90 or greater	Critical risk

Remember:

- Forecast is for all the Islands and some areas may experience changes sooner.
- Forecast is based upon estimated wind speed, air temperature and possibility of rain/hail at sea level during 4-hour time slots over the forecast period.

WHAT IS MANAGED/ROTATIONAL GRAZING?

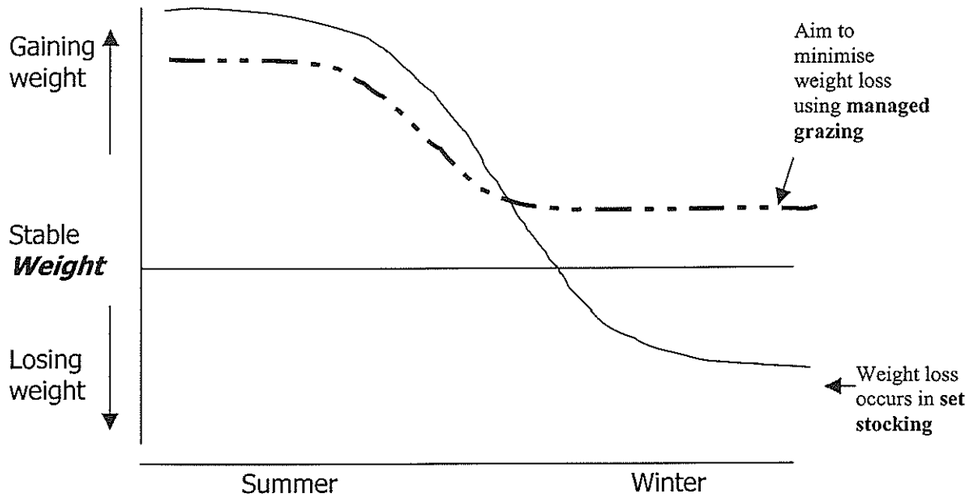
Damien O' Sullivan

The Pasture Improvement Program financed by FIG has seen many farmers looking at the benefits of various grazing methods. These grazing methods are known under different names and can sometimes be confusing depending upon who you are speaking to. The rotational grazing methods being adopted by farmers are not new to the Falklands. In local records rotational grazing methods have been recommended by Munro in a report from 1924 and then backed up again in another report by W. Davies in 1936.

Successful on farm managed/rotational grazing systems have been used in the islands for a long time. The benefits of these systems have been backed up by research projects. Trials at Fitzroy during 1995 to 98 using a simple 2-paddock rotation showed the following responses:

- Rotational sheep gained 3kg in the time Set stocked sheep lost 3 kg
- Mortality rates of both groups remained the same
- Rotational sheep produced a 7% heavier fleece
- Fibre diameter was 1 micron coarser in the rotational flock
- 3% greater wool yield in the rotational sheep
- Fleece from a rotational grazed sheep was worth £0.29 more.

So what are we trying to do for the animal in this grazing system? As shown in Graph 1 below we are trying to even out of the quantity and quality of feed available to the animal over the grazing year.



Graph 1: Live weight losses & gains under Managed and Set stocking

Despite the acknowledged benefits of rotational grazing it must be carefully implemented to avoid any loss in animal condition and production as the system starts working.

SCRAPIE – IS IT PRESENT IN THE FALKLANDS?

Stephen Pointing

The simple answer to the question above is that we don't really know. I haven't made a positive diagnosis of a case of Scrapie in the six years I have been here and I can't find any record of a positive diagnosis having been made by any of my predecessors. There is no mention of the disease having been present in the Islands in any early agricultural reports going back to the beginning of the 20th century. On the strength of all this "lack of evidence" I have been reasonably happy to assume that the Falkland Islands are free from Scrapie. However, is that a false and comforting assumption and how can we prove that the disease isn't here? That is where I need to call on your help.

What is Scrapie?

Scrapie is a transmissible spongiform encephalopathy of sheep and goats, which has been known about in the UK and many other parts of Europe for many hundreds of years. It is now present in sheep flocks worldwide with the exception of New Zealand, Australia, some South American countries and hopefully the Falkland Islands. It causes a fatal degeneration of the brain of sheep and goats and is closely related to (and may have been responsible for) BSE in cattle.

Clinical signs.

In most sheep flocks, because clinical signs of disease appear a long time after infection, cases generally appear singly. In sheep, Scrapie occurs most commonly from about 3 and a half years of age onwards. The onset is insidious and frequently subtle. Most sheep show a combination of the following clinical signs. None of these clinical signs in combination or individually are a definite indication of Scrapie.

Skin irritation

- Repeated scratching of the flanks and hindquarters against fixed objects.
- Repeated scratching of the shoulder or ear with the hind foot.
- Nibbling or grinding teeth when scratching themselves or when rubbed firmly on the back.
- Nibbling of the feet, legs or other parts of the body.
- Excessive wool loss or skin damage.

Behavioural changes

- Excitability
- Increased nervousness or fear
- Lagging behind
- Aggression
- Depression or vacant stare

Changes in posture and gait

- Inco-ordination and weakness leading to recumbency

Later clinical signs

- Weight loss
- Death

Why is the disease important and what do you expect me to do about it?

People are much more concerned about the transmissible spongiform encephalopathies (TSE's) such as Scrapie, since BSE came to prominence in cattle, and even more so since variant CJD (the TSE that affects humans) has been linked to BSE. In reality the disease does not cause major problems within sheep flocks because only a few animals are ever affected at one time. The main problem occurs when you want to export live animals or their genetic material (e.g. semen or embryos). The importing country usually wants to know that the exporting country is free from Scrapie or, at the least, the property of origin is and has been free of the disease for several years. If, in the future, we want to be able to export live rams or ovine genetic material overseas we should be gathering information now to show that the Falkland Islands are free from Scrapie. This is where YOU can help.

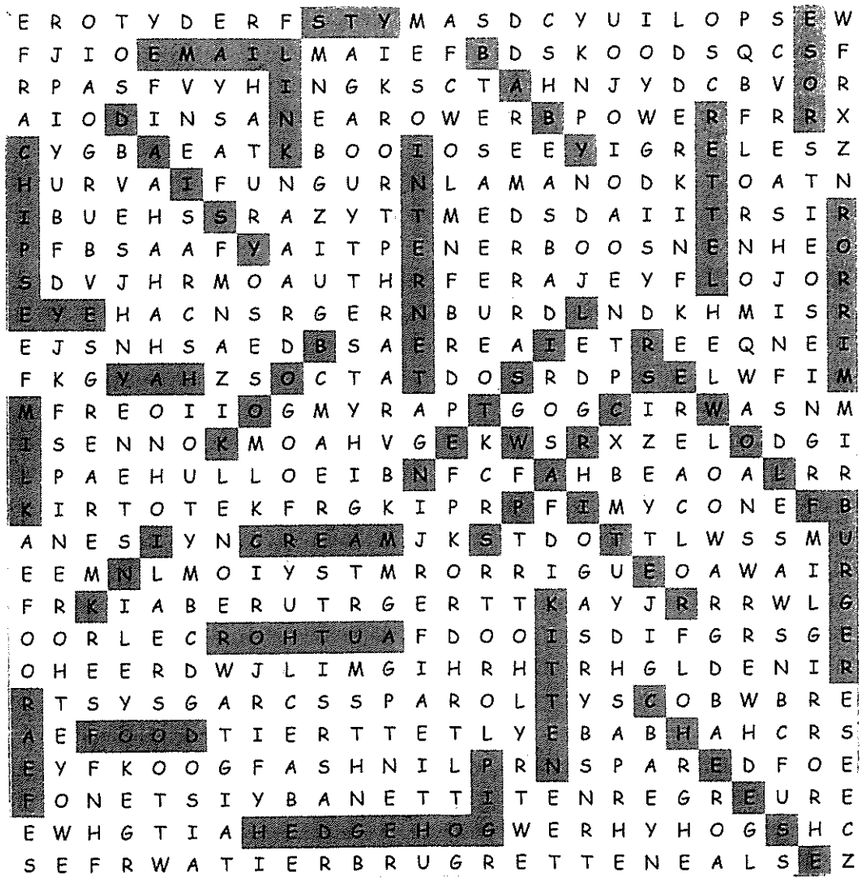
Unfortunately there is no test you can carry out on the live animal to show that it has or might be incubating the disease. The disease can only be accurately diagnosed post mortem after a section of the brain has been looked at under the microscope in a specialised laboratory. Starting during the next export season we hope to take a random sample of sheep brains from sheep being presented at the abattoir and sending them to a recognised laboratory in the UK. It would also be useful if we could send off brain samples

from sheep in Camp – especially from any sheep that are exhibiting any combination of the clinical signs outlined above.

If, during the coming shearing season, you see any sheep that may arouse your suspicion please put them to one side and contact the veterinary section at the end of the day. We probably won't have the time or manpower to come and examine each suspect but, from your description, we can make a decision on whether to cull the suspect animal and salvage the head and brain. The head with the brain inside can then be sent to the lab in Stanley where we can remove the small part of the brain that is most useful in reaching a diagnosis. We will just need to know some details about the sheep's sex, age, breed and any history that might prove useful.

Please keep this article in mind as the shearing season progresses. Your surveillance will form an important part of the "assurance" to the outside world that the Falkland Islands really are free of Scrapie.

SOLUTION TO LAST MONTH'S WORDSEARCH

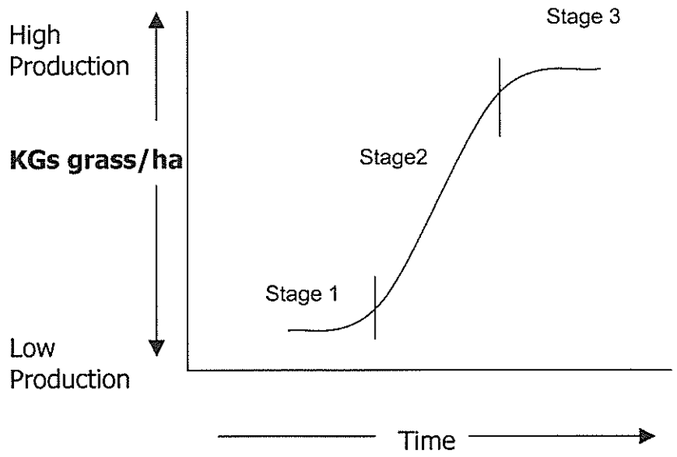


MANAGED/ROTATIONAL GRAZING AND GRASS MANAGEMENT

Damien O'Sullivan

Using a natural resource like grass essentially means that animals are grazing on a product of the sun's energy. To maximise the amount of energy obtained from the sun, and hence the amount of grass grown, it is necessary to maximise the leaf area of grass for as much of the time as possible. One method of achieving this is through effective grazing management. Of course there are other ways that this could be achieved, i.e. through strategic harvesting of grass for hay or silage, but in most cases this is not feasible.

There are three general "stages" to grass growth as shown in Figure 1.



Graph 1: Stages of grass growth

Stage 1 – the grass is short, very nutritious, there is a low leaf area and production/ha is low. High quality/low quantity. **Low ability to utilise the sun's energy because of the low leaf area.**

Stage 2 – the grass is medium height, has good nutrition levels, there is maximum green leaf area; production of green leaf is good. High quality/High quantity feed. **Good ability to utilise sunshine to produce grass.**

Stage 3 – the grass is at maximum height, nutrition is decreasing, leaf area is high but there is a high percentage of dry fibrous indigestible material, production is at its maximum but has now finished, the grass will be going to seed. Low quality/High quantity. **Reduced ability to grow new grass as low levels of green leaf area to photosynthesise.**

The principle of managed grazing is to maintain plants, as much as possible, in stage 2. By resting and rotating stock we can keep grass in its maximum growth stage for as long as possible. If plants are continually grazed at Stage 1 (for example set-stocked greens) grass never reaches its full potential growth rate and does not get the opportunity to go to seed, important for spread and regeneration). Herbs and other broad leaf plants that provide

important and additional nutrition do not get the opportunity to grow adequately under set stocking. It is believed that such set-stocked grazing, will have less production overall and hence feed less sheep or cattle overall than a more "managed grazing" system. Most white grass pastures are generally in stage 3 (rank and overgrown) as it is usually left by the sheep and cattle in favour of more palatable fine grasses.

It is clear that grass growth varies during the year. To make best use of grass growth in summer (period of most sunshine and warmth) the ability exists to join a number of mobs together and to rotate animals between paddocks to keep plants in stage 2 as much as possible. As the seasonal grass growth slows the movement of stock between paddocks can also slow. Obviously such a stock amalgamation and camp rotation programme would spare some camps from use over the key summer growing season. Such spelled camps could then be progressively opened up for use over the extremely critical, but very harsh winter and early spring months.

It is difficult to effectively graze plants in stage 2 for long periods under the current system of grazing in the Falklands (where small numbers of very large camps is normal on many farms). However through mob amalgamations and strategic camp sub-division, perhaps this is something that can be achieved over time. As a starting point there are demonstrated benefits of 2 paddock rotation systems in the Falkland Islands and likely greater benefits with well managed multi-camp rotations.

BLACK SPOT WOOL

Robert Hall

The Falkland Islands have spent decades developing the production and marketing of pure white fleece wool. There are two major threats to this reputation, namely stain and pigmented coloured fibres.

Stain is addressed by high quality and vigilant shed practices, with skirting on the shearing board and skirting on the wool table being of critical importance.

Pigmented coloured fibres take the form of black, brown or grey fibres.

- At their worst, from the perspective of a white wool producer, a sheep or its fleece may be black or part black. The mainstream wool industry prefers black or part-black sheep to be slaughtered. However, if they appear in a shearing shed, they should be shorn last and any bale containing black or part-black wool must be labelled BLACK.
- More common than coloured fleeces are white fleeces with small black spots. These black spots should be removed from the fleeces and carefully placed in a special 'Black Sack' for later baling as BLACK (or dumping). The 'white fleeces with black spots removed' remain suspect and should be classed separately as MIXED FLEECE (MXD FLC) with the bale specification clearly explaining in full that the bales only contain white fleeces with black spots removed. These fleeces have a higher risk of dark coloured fibres. Abbreviations such as B/W risk causing confusion. To avoid any confusion in the future the name Black/White should be dropped in favour of either Black or Mixed Fleece as appropriate on the bales **with a full explanation on the bale specifications.**

We must all continually work to develop and improve Falklands wool as changing markets require. The above may or may not necessitate change in some wool sheds. In any event, the reputation of pure white Falkland fleece wool and accurately described oddment lines are highly prized. The Falklands reputation is worthy of this extra, standardised protection.

BLACK OFF THE SHEEP'S BACK

Press Release from Sheep CRC

Dark fibre contamination in the nation's wool clip could soon be a thing of the past with the development of genetic screening tests to eliminate 'black' genes from 'white' merinos. The first steps to develop DNA tests for piebald sheep were taken last week when white ewes were artificially inseminated with semen from a piebald ram to breed a test flock for researchers to study. This research will build on recent advances made in isolating the genes responsible for what are known as self-colour patterns – black and mainly black sheep with symmetrical pigmented features.

Project partners – the Australian Sheep Industry Co-operative Research Centre (Sheep CRC) and CSIRO – hope to have the first of a series of simple blood tests for self colour patterns within the next few years, while screening tests for the more elusive piebald gene(s) will take between five and 10 years to develop. CSIRO Livestock Industries project leader, Dr Belinda Norris, said the tests to screen out white rams and ewes carrying the unwanted black genes would be targeted at stud breeders and with widespread use it may be possible to nearly eliminate these unwanted pigmentation patterns from Australia's merino flocks.

This phase of the research will focus on what's known as the Australian Piebald – sheep with one or two black patches between the size of a fist and a dinner plate – rather than solid black animals or those with other black patterns, as the piebald spots are harder to detect and impossible to breed out by using a conventional visual selection method. "The Australian Piebald is different to black self-coloured sheep in both looks and genetics", Dr Norris said. It's not yet known whether or not sheep with one or two small black patches (smaller than the size of a coin) were piebald and therefore caused by the same sets of genes.

"Most flocks have a few percent of lambs each year that are mostly black or have one spot or patch, the latter being the most common. Many spots are never noticed as they gradually fade and others are simply missed, contributing to pigmented fibres in the white wool", she said. Contamination from dark fibres is a major problem for the entire merino industry, from producers to processors. While there are no figures available on the cost of black sheep to woolgrowers, Australian Wool Innovation estimates that dark and medullated fibre contamination costs the wool processing industry a massive $100 million a year. In Australia about 500,000 merino lambs are born each year with pigmented wool.

Dr Norris said blood and skin samples would be taken from the 600 ewe test flock, the piebald ram and their progeny to identify common genes in different groups in a bid to find the genes causing the piebald pigmentation pattern. The test flock is located at a property near Guyra, in the Northern Tablelands of NSW. She said that in piebald sheep the gene

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inheritance was very complex as not all animals with the genes from both parents actually have black markings. She believes that only 25% of animals with both genes show piebald spots.

Dr Norris said it would take between five to 10 years to develop a blood test or a series of blood tests to screen for piebald genes. Currently, piebald gene carriers can be identified by pedigree testing all coloured lambs and the flock sires to determine which ram was responsible. This method relies on the farmer being able to identify all possible sires of a pigmented lamb. It does not enable other carriers of one copy of the pigmentation gene(s) within the flock to be identified. Direct DNA tests would be a significant improvement, as they could be used to identify carrier sires before any pigmented lambs are born.

SWEET & SOUR PORK SPARERIBS (Serves 6)

Ingredients

1 kg pork spareribs
¼ cup flour
¼ cup peanut oil
6 spring onions cut into 2.5 cm slices
1 small red pepper cut into diamond shapes
1 small green pepper cut into diamond shapes
2 stalks celery, thinly sliced
¼ cup unsweetened pineapple juice
2 tblsp white vinegar
2 tblsp soy sauce
1 tblsp tomato puree
1 tblsp brown sugar
2 tsp cornflour + extra
½ cup chicken stock

Method

- ✓ Trim any rind and excess fat from spare ribs
- ✓ Boil ribs in large pot of water. Simmer for 10 minutes and drain. Pat dry with absorbent paper.
- ✓ Cut each spare rib in two. Dust with cornflour and shake off excess. Heat oil in a wok or heavy-based frying pan, swirling gently to coat base and side. Cook spare ribs quickly in batches over high heat for about 10 minutes or until golden. Remove from wok and drain well on absorbent paper. Keep warm
- ✓ Add all vegetables to wok; stir-fry over high heat for 3 minutes until beginning to soften but still crisp. Remove from wok; keep warm
- ✓ Combine pineapple juice, vinegar, soy sauce, tomato puree and sugar in a small bowl; add to wok. Combine the cornflour and chicken stock to make a smooth paste. Stir into sauce mixture in wok and cook until liquid boils and thickens. Return the spare ribs and vegetables to wok; simmer for 2 minutes.
- ✓ Serve with rice

Hint: If you can get it, peanut oil is the best oil for stir-frying. It has a mild flavour that does not 'compete' with the other ingredients.

EDITORIAL

It is amazing every spring how quickly the Camp goes from saturated to tinder dry. Farmers struggling to burn trash on re-seeds one week find that days later it is a very scary business controlling a burn. Burning permits required during the closed season (from 16 September to 30 March) become restricted in length as conditions change and if burns are not possible on the days requested they need to be extended. Farmers have been outstandingly co-operative this year when applying for permits. Glynis and I thank everyone very much for keeping in close contact when doing a burn. This has made liaison with the Fire and Police services so much easier.

Priscilla tells me she had enough articles submitted to produce a double sized edition of the Wool Press this month! It is very encouraging to have so many willing contributors. Knowing how busy everyone is with outdoor work when it is light before four o'clock in the morning, she has held over some interesting articles for the January edition.

We have an informative update from John Ferguson on Sand Bay Abattoir, which is very welcome just before the export season starts again in January. John quotes sheep numbers submitted by farmers and these are very encouraging. We also have contributions from Goose Green School and Susie Hansen. Thank you!

Stuart Doyle leaves the Department this month and we wish him and Amara well for the future. Alex Blake will continue his mapping work. Stu has submitted a useful article on soil pH and one on fertiliser rates. Damien has contributed an article on managed grazing systems and Mandy McLeod's contribution about PIP procedures is very topical as well with so much work underway at present. Thanks also to Joe Hollins, our locum vet, for his article.

Very best wishes for Christmas and the New Year.

Phyl Rendell
Director of Minerals & Agriculture

STARTING A MANAGED/ROTATIONAL GRAZING SYSTEM.

Damien O' Sullivan

There are many types and variations on grazing systems but essentially there are 4 main management systems.

1. Set stocking/continually grazed
Where stock are permanently grazed all year round. Stocking rate is maintained at the same level.

2. Managed/Rotational Grazing
Stock rotated between one or more paddocks allowing for paddock/s to be rested from grazing. Movement of stock can be on a calendar basis or moved as grazing and pasture conditions permit.

3. Cell grazing
Very intensive grazing of small paddocks. Stock are moved depending upon pasture availability. Grazing charts are used to monitor grazing days/livestock unit.

4. Forage crop strip grazing.
Generally carried out by placing electric fences across the crop and allowing animals enough forage to graze for a day or more. Allows better usage of the fodder crops and restricts trampling and wastage.

In the Falklands a Managed/Rotational grazing system together with strip grazing of forage crops and reseeds seems to be the most favourable options for efficient pasture/forage management. With a managed grazing system we need to monitor the pasture quality/quantity and as it declines move stock on before they lose weight.

Some points to remember when setting up a rotational grazing system are:

- the number of stock movements/season will depend on number of paddocks
- 2 paddocks carefully rested are a far better option than set stocking one paddock
- paddock to paddock movements can be calendar or seasonally based
- but paddock to paddock movements are better based on feed availability and quantity if enough paddocks are available.
- rapid grass growth = rapid moves between paddocks
- slow grass growth = slower moves between paddocks.
- it will take some time for grazed pastures to respond to resting and animals may initially loose weight when starting a managed grazing system.

Advantages of managed grazing

- More contact with animals to monitor condition & health
- larger flocks simpler to gather
- more even grazing of pasture
- stock do not hang in favoured corners or hang in areas trying to get "home"
- sheep quieter and easier to handle
- better overall sheep production
- able to have sheep near shed at shearing to minimise gathering time.
- fewer flocks to gather
- can help reduce worm burdens

Disadvantages of managed grazing

- extra fencing (not always necessary)
- need to move stock regularly
- more careful monitoring of pasture quality & quantity
- time needed for system work as a large flock of sheep are going into an un-rested area that has supported a significantly smaller number of sheep.

AGRICULTURAL ADVISORY COMMITTEE REMINDER FROM JIMMY

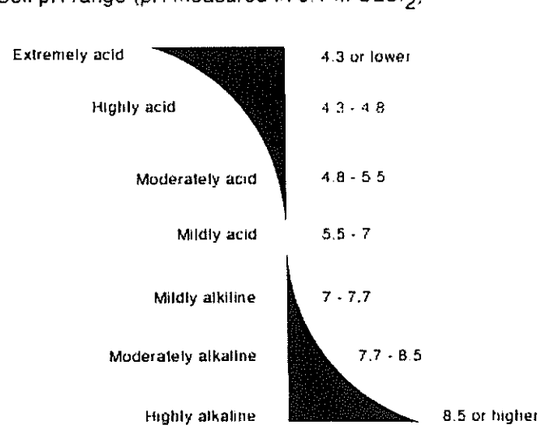
A reminder to farmers that I sit on the Agricultural Advisory Committee as an independent farmer. Meetings will be held regularly and if anyone should have any issues they would like raised at these meetings, or would like to discuss what was spoken about please feel free to contact me anytime on telephone 42178.

SOIL PH AND AGRICULTURE

Stuart Doyle

The pH value of a soil is its measure of relative acidity or alkalinity. The following diagram shows relative terms that describe acidity and alkalinity depending on pH.

Diagram 1: Relative pH Terminology



Source: Australian Natural Resource Atlas V2.0

pH is a logarithmic scale, therefore each pH unit change represents a tenfold change in acidity. For example a soil of pH 6 is 10 times less acid than a soil of pH 5, and 100 times less acid than a soil of pH 4. In effect the scale is a representation of the availability of Hydrogen (H) ions in the soil solution, and whilst this is ever increasing in natural ecosystems, agricultural practices speed up this natural process.

Sources of Acidity

There are many factors that influence soil pH. The following are potential sources of soil acidity:

- Microbial processes – breakdown of trash by microbes
- Fixation of N by leguminous plants
- Nutrient uptake by plants and crops and subsequent removal of nutrients – plants exchange H+ for cations (Ca, Mg, and K) to preserve internal neutrality of charges.

- Leaching – when positively charged ions are leached below the topsoil they are replaced by H+.
- The addition of agricultural fertiliser. In particular nitrogen (N) and sulfur (S)
- Break down of acid parent rock to make up the soil

The above processes (with the exception of fertiliser use) occur naturally within the soil. Agriculture, by way of intensifying natural processes to increase production, speeds many of these processes and therefore intensifies the acidification of land. See Table 1 For the relative effects of various agricultural practices.

Table 1: Lime requirements to ameliorate agricultural production

Product	Yield	Lime requirement
Lupins	2 t/ha	40 kg/ha
Grass hay	5 t/ha	125 kg/ha
Clover hay	5 t/ha	200 kg/ha
Lucerne hay	5 t/ha	350 kg/ha
Wool*	5 kg/sheep	0.07 kg/sheep
Meat*	1 lamb	0.02 kg/lamb
Milk*	1000 litres	4 kg/1000 litres

* Additional acidification for the majority of the paddock occurs under set stocking with livestock. They consume pasture, which contains alkalinity and then deposit most of this alkalinity as dung and urine in areas where they camp, making most of the paddock more acid but the camps more alkaline. Source: Australian Natural Resource Atlas V2.0

Part of the process of agricultural acidification is the use of fertiliser. For a land manager to minimise the impact of agricultural fertiliser on soil pH a good understanding of the effects of various fertilisers must be gained.

Fertilisers and pH

Agricultural fertiliser is applied to soil to improve the availability of essential plant nutrients. Unfortunately a side effect of certain fertilisers is the release of H+ ions contributing to a lowering of soil pH (acidity).

When added to the soil N fertiliser causes acidity (particularly those containing ammonium). The free H+ ions come from 2 main sources, leaching of NO_3 and the conversion of NH_4 to NO_3.

Table 2 – Average Lime needed to neutralise acid produced by Fertilisers.

Product	Kg Lime per Kg of N or S applied
Mono-Ammonium Phosphate	5.4
Di-Ammonium Phosphate	3.6
Urea	1.8
Calcium Ammonium Nitrate	0.3
Sulfate of Ammonia	5.4
Elemental Sulfur	3.0
Rock Phosphate	0

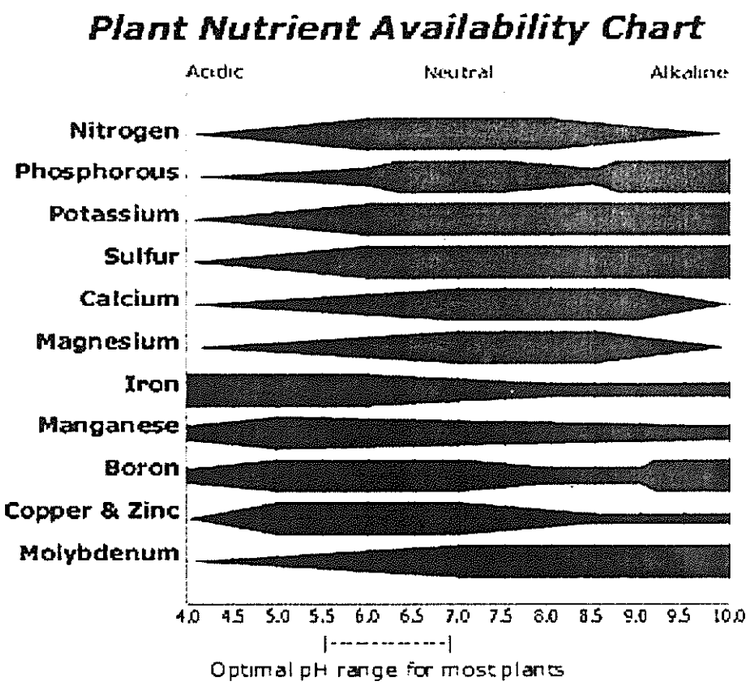
Source: Merry. (1997)

As can be seen in table 2 the most acidifying fertilisers are those containing appreciable amounts N and also Sulfur (S).

Production Problems Associated with Acidity

The pH of soils has dramatic effects on agricultural production in several ways, low pH can reduce the availability of many nutrients (*see diagram 4)*, and in addition reduce biological activity. Fungi are active over a wide range of soil pH, however are most prolific between 5.5 & 8.5. Bacteria are more sensitive preferring the range of 6.0 – 7.0. Soil organisms are the basis to most nutrient cycles and their reduction causes a reduction in the breakdown of organic matter and ultimately less available nutrients. (Particularly in areas where spagnham moss is active. Moss actively acidifies the soil to prevent competition from other plants – hence the formation of peat in the Falkland Islands).

Relative Nutrient Availability in Relation to Soil pH.



Source: Incitec 2001

Maintaining the proper pH for agricultural production is a must for efficient use of other crop inputs. Table 3 below shows some of the wastage induced by acidity.

Table 3: Estimated wastage of applied nutrients at various pH levels

Fertiliser used by plants

ACIDITY	N	P	K	WASTAGE %
Extreme - <4.5 pH	30%	23%	33%	71%
Very Strong – 5 pH	53%	34%	52%	53%
Strongly Acid – 5.5 pH	77%	48%	77%	32%
Medium – 6.0 pH	89%	52%	100%	19%
Neutral – 7.0 pH	100%	100%	100%	0%

Source: Snyder. (2004)

Nitrogen - While soil pH does not directly control N availability per se, it does affect soil microbial activity. Acid soil conditions can limit microbial activity and slow mineralisation of N (from organic matter) as well as nitrification.

Phosphorus- P availability is strongly influenced by soil pH. Availability of P is maximised when soil pH is between 5.5 and 7.5. Acid soil conditions (pH < 5.5) cause dissolution of aluminium and iron minerals that reacts with solution P effectively "tying" it up.

Magnesium - Mg availability is affected by soil pH. Highly weathered, low pH soils can be deficient in Mg. Mg is leached out of the soil due to excess hydrogen, aluminium, and iron which compete for cation exchange sites.

Aluminium – Al availability is greatly increased under acid conditions. The primary minerals and secondary Al compounds break down to release Al. Due to the strong valency Al then takes up exchange sites, binds with free phosphates and becomes toxic to plants.
Insoluble aluminium starts to become plant available at pH 5.5, and that there is another marked increase at 4.5. Aluminium retards root growth, limits P availability, induces moisture stress and prevents root exploration ultimately leading to plant death in sensitive species.

Remedies for Acidity – Lime may not be for everyone?

What are your options?

1. Do nothing – status quo – hope for the best
2. Reduce acidification by management practices – slow the decline – don't cut hay, don't use Ammonium fertiliser
3. Grow more tolerant species – use plants that are native to acid environments
4. Apply increasing nutrients as efficiency drops – waste fertiliser!
5. Select sites with suitable pH if available.
6. Apply liming material to change pH.

Without soil test information farmers may be taking one of the first four options. Even with soil test information lime use is expensive and this precludes it from widespread use. An option is to crop for several seasons to enable the costs of liming to be spread over several years before returning the ground to pasture.

The actual liming process is expensive and usually needs repeating every 3-5 years on acid soils. Liming is not a 'silver bullet'; it is more restoring soil pH to an acceptable level and starting a re-acidification process. The lime needs to be applied and incorporated into the top 10-15 cm of the soil with sufficient moisture for the reactions to occur. This means farmers need to cultivate land months in advance of a crop or pasture phase to allow time for the reactions to occur in the soil.

The possibility of a 50 % increase in nutrient availability makes pH testing an absolute must when selecting sites for forage crops and re-seeds. pH is a simple and inexpensive soil test to be taken – so in your planning process enquire about a pH test for your selected sites – it could make all the difference.

WANTED TO BUY

For end of season – ewes culled for age or faults. Anything considered.
Please contact Riki Evans on 41026

HOW TIME FLIES WHEN YOU'RE...

A farewell from Stu Doyle

How time flies! It seems like the other day that Nyree was pestering me for an introductory article for the wool press – and here we are with Prill pestering me for a farewell contribution.

On the farm resource mapping side of things, my primary role whilst in the DoA, we have made real inroads. The DoA in co-operation with farmers has exceeded targets set with 32 farms digitally mapped and another 8 well on the way. Initially interest was a bit slow as people gauged the value of resource mapping information to their own circumstances, however once realised there has been a good uptake of the project. During the PIP process in particular, farmers who got in early saw benefit from accurate numbers and time saved during the planning process. I have been pleased to see that some farmers who have a need for quick and accurate information have purchased their own GPS units (see www.gpsw.co.uk for good GPS info) and can now simply email new fence way-points or areas of worked up ground straight to the DoA.

I must stress that the project is not complete and after my contract completion Doug, Damien and Andrew will continue to help anyone with any mapping queries in the field. Alex Blake (see his article) will be keeping the completed maps up to date and providing the agricultural advisors with the technical back up as required. I am sure with the amount of sub-division fencing going up at the moment and planned in the near future they will be kept busy.

Amara & I head back to our home town of Moree, in Nth NSW Australia, where I start a new job as a crop nutrition specialist, based in our home town managing the Nth west of NSW for Nipro Ltd. Glynis will have our details should anyone want to catch up with us back in Australia.

Amara and I leave the Falklands with mixed emotions – on one hand we are keen to return to family, friends and home – and on the other we will be sad to leave behind good friends, interesting challenges and a unique place in which to work. As we start to look over our shoulder the Falklands looks a very different picture to the place we found 2 ½ years ago. Agriculture has intensified, the road network is ever increasing and farmer's self-confidence has increased, and although there is an air of caution people are optimistic in the future of agriculture.

Finally thanks to all those who I have worked alongside. You have endured the usual barrage of questions coming from someone unfamiliar with the Falkland Is. ways, place names and family trees with good humour. The DoA has been an interesting and challenging workplace. I wish all the farmers the best of luck in the future seasons and hope to catch up with a few of you again somewhere sometime.

IDEAS

Do you have any good ideas for an article? Maybe you'd like to read about a certain subject from one of our staff, or maybe you'd like to write an article yourself. Whatever your ideas are, why not let Priscilla know by phoning 27355 or email phalliday@doa.gov.fk Remember, this paper is for you.

CONTINUATION OF FARM MAPPING PROJECT

Alex Blake

As many of you know Stuart Doyle will be leaving the Islands very shortly. To keep the farm mapping project going Phyl Rendell has decided to combine the farm mapping project work with the GIS work I currently undertake monitoring the offshore and onshore minerals exploration program.

For those of you who don't know me, I grew up at Hill Cove. In 1989 I went to the UK to do my A levels, and then a degree in Maritime Business with Fisheries Economics at the University of Plymouth. I graduated in 1994 and returned to the Falklands.

In August 1995 I started work at the Fisheries Department as a fisheries observer working for up to 6 weeks at a time on commercial fishing vessels collecting scientific data on the catch. At the end of 1997 I applied for the Oil Statistics Manager (my current post) job at the Department of Mineral Resources.

I started work at the beginning of January 1998, in preparation for the drilling phase later in the year. During February, March and April of that year I spent time at the British Geological Survey in Edinburgh learning about databases and GIS (Geographical Information Systems). For the last six years I have spent my time supporting Phyl in the department, maintaining data and maps relating to the exploration activity as it has progressed. I have also undertaken extensive training in various GIS/mapping programmes, firstly MapInfo, moving to ArcView in 2001 and most recently moving on to ArcGIS, the program the farm mapping project is being run in. Although the farm mapping project is quite different to the work I have undertaken so far the training I have received should enable a fairly seamless change over (I hope!). I will be continuing the mapping work Stuart has begun offering technical support to Doug, Damien and Andy Pollard, and producing new and updated maps for the farmers, as they are required.

If you need to contact me I am available at the Department of Mineral Resources office on phone 27322 or e-mail ablake@mineralresources.gov.fk.

ARE YOU THINKING AHEAD FOR YOUR PASTURE IMPROVEMENT?

Mandy McLeod

I know you're all neck deep in sheep work at the moment, but before you know it, it will be time to put in writing the next stage of your PIP (or your first if you are not already in the programme). Whilst the DOA cannot guarantee that there will be funding available for next year, it won't do any harm to be prepared. This year it was all a bit of a rush and everyone (farmers and DOA staff alike) were under pressure to get a lot done in a short space of time. We don't want a repeat of that next year, so think now about what you would like to do assuming the expected funds are available to us. We can call it a Pasture Improvement Wish Plan for now.

An issue of even more urgency though is the utilisation of under spends of this year's allocation. If you are one of the lucky farmers who are in the position of having surplus funds from your £12,600 allocation, you should be thinking now of how you should utilise it. Here are a few ideas....

Ground preparation
This year, because we were late starting, everyone wanted their ground prepared at the same time which put a lot of pressure on contractors to keep everyone happy, and with labour as a limiting resource, someone will inevitably be let down. Consider using your surplus allocation to prepare ground ready for next year, thus easing the rush and spreading the contractors' workload over the year.

Seed, fertiliser and fencing
Think now about placing your orders for these materials for next year's PIP projects. This will reduce the risk of missing or late boats. It may be an advantage for several of you to get together to increase the bulk of the orders and gaining a possible discount? It also gives you more time to shop around and get the best value for your money.

WHAT YOU HAVE TO DO
Before you go dashing off to spend the dosh, you will need to contact Andrew Pollard, Doug Martin or Damien O'Sullivan to discuss your ideas and make the necessary amendments to your plan. They may need to come and visit your farm. Changes will have to be approved by the Director of Agriculture after I've checked the probability that you will make £3 return (over 10 years) for every £1 spent. If approved you will have to sign another agreement for the required amount of this year's allocation. The thing that you have to bear in mind is that any project started using PIP funds (say preparing a piece of ground for forage), must, as your plan states, be completed. If the expected funds are available in the next financial year this will be no cost to you. However, should the funds not be available, you will have to be prepared to bear that 'finishing' cost yourself. Likewise, if you buy fencing for one of next year's work projects, it must be erected as your plan states. If you are doing it yourself then that will be no cost to you, but if you are intending to pay someone for the work, it might cost you their wages, if funds aren't available as expected. Contact me on 27355 for more information or email mmcleod@doa.gov.fk

SEASONS GREETINGS FROM ALL AT CAMP EDUCATION & STANLEY HOUSE

It has been almost 105 years since the first Camp Education teachers set out with their maletas full of books and a determination to bring education to the children of isolated settlements, islands and outside houses. Camp was a vastly different place in 1896 but there are some things that do not change. The work of teachers in the Camp would be near to impossible without the wholehearted support of families and friends. Camp Education would like to pay tribute to the hard work of parents and friends that not only makes our job possible but also makes it so satisfying.

It is easy to forget just how far things have come in the last century. There are the obvious changes with owner occupation and communications that have changed life so radically. In Camp Education we have seen developments in the service we offer and how we offer it. We have conducted experiments with video conferencing and the use of the email and, although the systems are not in place at the moment, it can only be a matter of time before technology allows us to bring about even more development. This year Stanley House came under the remit of the Camp Education Supervisor, although I am more involved with the paper shuffling and the budget. Stanley House staff work with parents to provide a safe and positive environment for your children attending the Community School.

I would thank everyone in the Camp for their support to both Camp Education and Stanley House over the year. A big thank you to our friends at Port Stephens and Fox Bay for their assistance with our annual 'camp' and a special mention to Donna Evans because, without her first aid certificate, we would not have been allowed to continue.

When Priscilla asked if we would do something for the Wool Press, I invited staff to help out. In this issue and next month's are some pieces from the children at Goose Green and a couple very positive pieces from two of our travellers. I hope you find them interesting. Finally a VERY HAPPY CHRISTMAS AND A PROSPEROUS 2005 from all in Camp Education and Stanley House

XMAS GREETINGS FROM GOOSE GREEN SCHOOL

Pilar and Jack have been very busy this term in school. The most exciting thing to happen was the arrival of two more pupils, Josseline and Sabrina (pronounced Savrina) from Chile. We all live at Goose Green and if you haven't visited Goose Green, here are some pictures to show you what it's like.

Looking from West to East at Goose Green Settlement.

Goose Green shearing shed, which is huge

We are always busy in school. Sometimes Jack brings a toy.

We are looking forward to Xmas
and hope that Father Xmas knows we have been good children all year.

FOR SALE

A number of Aberdeen Angus ET bulls at Bold Cove.

These bulls are approaching 13 months of age and are extremely well grown. The are docile and will be ready for work in Jan/Feb.

If anyone would like further information on sires, weights, photographs, price or would like to view, please call Jimmy Forster on 42178.

SUSIE'S YEAR

Susie Hansen

Priscilla 'kindly' asked if I could do an article for the wool press, she said "basically just to tell our readers what 2004 has been like for you". So in a word "Busy"! But I think she wants a little more than that so here goes:

Cornwall: For over a year we had planned a sort of working holiday in Cornwall where we would go and help Janice with foaling (the lady who we got our original miniature horses from). She is now 70 and finding she can't cope with it all as easy as she used to.

When Ian was elected to council, it turned out he couldn't just "up and leave" on our planned dates. Having planned the trip so much in advance, having a cottage booked and not wanting to disappoint Janice we decided that Matthew and I would go, Ian would follow later.

Apart from holiday-ing there was a lot of hard work such as digging out deep litter stables that had not been dug out for 2 or 3 years. Fewer foals were born than was expected while we were there. We did get some foals but for what ever reason (possibly changing of seasons?) not as many of her mares foaled as she was expecting to when we were there. We have now found the same thing happening with ours - they are all foaling much later in the season than we were expecting them to.

Janice went to France during a lull in foaling and entrusted us to care for the place. This I felt was a great honour as usually she can only be prised away from the place in the middle of winter when she is sure she has someone adequately reliable to look after her precious horses. The biggest worry at the time were the gypsies who had camped near by and had a reputation for stealing horses and Janice's prize Falabella stallion was in a field leading onto the Moors. I wasn't that worried thinking maybe she was just worrying more than necessary because she was going to be away. However, when Steve (the guy we were renting the cottage from) put padlocks on his gates, I did start to wonder and then we heard that they had in fact stolen some ponies!

Mishaps: It hasn't all been fun and games at Main Point. Before our trip the wool press broke down and we had to buy another second hand one to make one out of two.

After we got back the inverter blew a board of some sort and we had to get a new one so that meant we were some time without an inverter while waiting on the new board. Funny how you soon forget about the old days and take all these modern comforts for granted. Then one day we had just got back from the far corners of the farm finishing off the fence lines with the GPS and the rover blew up. I say "blew up" as that is as far as my mechanical terms go! We were on our way to Hill Cove at the time going up Shallow Bay Mountain and in seconds we couldn't see for black smoke! We really thought we had blown up! There was so much black smoke that Paul came up the mountain to investigate! To cut a long story short the block had split and we needed a new block and cylinder head. The cost of which was going to be as much if not more than getting a second hand engine. It wasn't that simple and we couldn't get a 200 tdi engine in the Falklands so now one is on the way from UK...

School: Matthew started school. Time really does fly. I had heard lots of horror stories about radio lessons and how kids hated it and it was all such a tie but anyway he took to school and radio lessons like a duck to water and I could breath a sigh of relief (so far at least!). In fact it has been known that if you can't get him to do something, you use a threat like 'the teacher

won't come back or you won't be able to do telephone lessons' and it works a treat! It was also such a help having the teacher here at shearing time, like a lot of things you wonder how you managed before!

The animals appear to have wintered well. The first lot of shearing went well and hogs clipped well with nice white clean fleeces. At the time of writing we have not yet shorn the AI hogs but are pleased with the look of them.

Lambing: As I write this it's a bit early to tell how lambing is looking but there were a few choice words muttered when we went out to gather the ewes for scanning, and found them lambing! So no scanning, pre-lamb shearing or crutching this year. It will be interesting to see what effect that has overall. On the whole it looks pretty good so far as the ewes are in very good condition. The stud flock was lambing during some really bad weather and we lost quite a lot of them so only got about 60% of lambs out of the stud ewes.

We have been crutching the maiden ewes for many years now and found that helped improve our lambing percentage quite considerably. For 4 years we have been pre-lamb shearing part of the flock, but there has not been a marked difference between the percentage of the flock of pre-lamb shorn ewes and the woolly flock in that time. We have decided to take this opportunity to go back to just crutching the ewes. We believe that our very good lambing percentage from last year was mainly due to the later lambing and the fact that the ewes were all very fat and so had plenty of milk to feed the lambs. Though the one flock that lambed earlier was also very good. Obviously with pre-lamb shearing you don't lose ewes getting cast, but we have decided that the number we lose through casting is not enough to warrant the stress on the ewes of pre-lamb shearing and the risk from bad weather when they are being shorn so early. Obviously this is just a personal view and is what we feel suits us. If we had an obvious sign of an improvement in lambing since starting the pre-lamb shearing we would have continued with it.

Foaling: Foaling has got off to a bad start with the loss of a mare but we were fortunate to save the foal and now have a hand reared foal to add to the menagerie of hand reared lambs and a calf. The hand-reared calf herself had a baby this year and I had to help deliver him. He wasn't too perky to begin with and wasn't able to get on his feet so after a couple of hours Matthew and I gave him a ride in the wheel barrow and got him and Rosie settled in the hay in the stable. We got some milk from his mother down his neck he and went from a half dead looking creature to a nice strong calf in no time. Having been used to dealing with miniature foals it came as quite a shock when I went to pick up the rather large newborn calf! Hence the wheel-barrow ride!

We then lost two foals in the same night. I have foal predictor kits in the form of a milk test and then when they get near I put a foaling alarm on them which alerts you when they go down to foal. These two both caught me out and I didn't have the alarm on either, so both foals were dead in the morning. One could have been saved, the second was what mini breeders call red bag - delivery when the placenta detaches and delivers before the foal, so I possibly wouldn't have saved that one anyway. So not a good start to foaling. Several more to go but so far all look like they will be later than I expected.

So lets end with a quote from Henry's Dad (most readers know Henry!)

"Let's move forward, it's another day tomorrow and always remember, where there's livestock, there's dead stock",

FALKLAND ISLANDS MEAT COMPANY

John Ferguson

2005 Export Season

Sheep and lamb numbers offered are encouraging, and considerably up on estimates made at this time last year.

Mutton - 23,500 and Lambs - 8,000+ (includes Hoggets) Admittedly, not all will eventually be available or suitable, although there are still some farms with planning sheets outstanding. Indications are that we will build steadily on the success of last season.

If you have livestock to go through the plant this season, and haven't yet forwarded details – please contact Nikki ASAP! We must stress the importance of keeping in contact with us, especially as new information becomes available about your livestock and availability. This does become easier as the lambing period comes to an end and shearing progresses, and I fully understand the difficulty in predicting this. We also however have the same difficulty in planning the season with limited information. A quick e-mail or fax update would assist greatly. This is Nikki's first season of organising the logistics, although I am confident that she will get to grips with it quickly.

Start Date.

The Contractor has taken back the Cold Store and Blast Freezer, in order to install the new panels and upgraded equipment. Despite the timing for completion and commissioning of this work being very tight, the plan being that it shall be fully operational by mid January. Therefore, we are looking at the latter part of January before we are able to begin production. We shall produce mutton for a day or two to begin with (to shake down the new equipment and allow the staff to settle in. We shall then put through all the available hoggets, so the risk of them 'breaking' their teeth is minimised as much as possible.

We understand that some farms will have sheep available before or at the start of the season, and we will process these as soon as we are able. The reality is that we cannot take them all in one go and moving them off their home farm too soon has led to problems with weight loss in the past.

There is a trade off between extending both ends of the season (Hoggets at the start, and getting lambs up to weight at the end) and the financial requirement of condensing the season as much as possible, to reduce operating costs. As numbers increase, the issue over season length will be removed, as we will need a longer period to process the available animals.

West & Islands

We are now looking at potential shipping dates, and will be finalising this with Island Shipping soon. As an indication, there are (at this time) approx. 15 Tamar loads to be shipped and they have to be slotted in so that east farms also get their animals through on a regular basis. Although there will be some movements fairly close together at the start of the season, we are looking at shipments (2 – 3 loads) at approx. 3 weekly intervals.

We are anticipating that the first (single) shipment will be in mid–January, and the priority will be for those farms with hoggets. The first loads of mutton will follow in February – and we are trying to avoid a situation whereby animals are waiting on the east. Although the system has yet to be tested, we are planning to truck complete Tamar loads in one go from New Haven. This should be possible with the additional trucking capacity (550 approx., with 2 trucks) that

Trigger now has. We have also been discussing the handling and loading side with Port Howard Farm, to allow the sheep to come directly into the plant – ready for slaughter. I'm sure there will be glitches, but I'm confident that the system will be improved overall.

Staffing

We are now gearing up to ensure that we have staff in place for the season. In the key production areas (slaughtering and boning), the hourly rate has been increased to £10/hr for those with the right skill/ability, to try and attract good locally recruited staff. We know that people with a background in farming/shearing pick the system up very quickly and soon keep up the more experienced contractors. Apart from making this work attractive to locals, it also reduces our operating costs (reduction in flights etc).

We are soon to strengthen our key core staff (Admin and Production Foremen) with a locally recruited person. Nigel Leach is to join us as Assistant Foreman (Cutting Room), with a view to taking over at the end of the coming Export Season. To date we have used a seasonal contractor in this position, but in order to develop both the local and export market potential; it is essential that a full time member of staff undertake this role, to progress the product cuts, specifications and production systems.

Local Market

We are presently looking at the potential for sales of lambs (and mutton/beef) to the fishing and shipping industry. This may provide an outlet for those farms that have lambs available that are outside our export specification. We continue to promote younger good quality beef, and feedback has been favourable.

Lambs

We are looking at ways to assist farmers in deciding what the optimum weight is for sending lambs to the plant. When is a wool breed lamb over fat? I'm afraid we don't have a definitive answer at present.

A lot depends on the breed, and I would ask those farmers intending to supply lambs to contact me directly to discuss this. This is to ensure that farmers maximise their return – whilst FIMCo receives the lamb in the optimum condition possible, given the conditions we all operate under. There is a limited amount of information available at this time, as we have only processed a small number of lambs each season. The system of live weighing is more accurate for lambs than for mutton, but still variable depending on farm and breed.

ARE YOU OPEN TO DOING DEALS?

DO YOU BREED CHRISTMAS LAMBS?

ARE YOU INTERESTED IN ARTIFICIAL INSEMINATION?

We need to practice:
Training rams
Collecting semen
Preparing straws
Cervically artificially inseminating (fresh semen) ewes next year.

Can you help us? Phone Andrez at Swan Inlet on 32266 or in Stanley on 21866 for a chat.

ONE YEAR IN THE JOB FOR THE DIRECTOR OF MINERALS & AGRICULTURE (DMA)

Phyl Rendell

It came as a surprise when Priscilla reminded me that I have been in post as Director of Agriculture for almost a year and she asked for an article for the Wool Press. This time last year I was shadowing Peter Johnston as he completed his final few months with the Department. It has certainly been a steep learning curve even with the excellent hand over I was fortunate to have from Peter. There were a number of turning points at the end of 2003 as well. The Pasture Improvement Scheme was undergoing a mid-term review and was about to take a new direction and a number of funded schemes were ending.

The Department's ten year Business Plan sets out a clear path, concentrating on core agricultural activities. I have found it an invaluable reference tool throughout the year. It makes clear that the role of the Department is one of supporting farmers to operate profitable businesses, and to produce marketable commodities that will not, in future years, require direct subsidies.

The year started with Glynis and I wrestling with budgets! I think we came out of that quite well but inevitably with a reduced income to FIG, the message is firmly taken on board that we have to do more with less. STABEX funds and support from our Councillors made some major projects possible and they are now well underway.

Farmers' Week was a really useful forum for me this year. Meeting farmers from all over the Falklands and getting such excellent feedback was extremely useful. And yes, we can take constructive criticism and we welcome lively debate! Close links during the year with the RBA have also kept me well informed.

The re-establishment for the Agricultural Advisory Committee this year strengthens links with farmers through representatives, Jimmy and Justin, and will enable us to discuss issues and disseminate information even more widely. A number of working groups are planned that will drive some key schemes for the benefit of the agricultural community. So watch out, you might be press-ganged to join one!

Juggling the mineral resources work with agriculture has been interesting this year. Seismic surveys and dead horses don't mix well! Sometimes papers get in the wrong in-tray and give us something to laugh about. I plan to get out to Camp when time allows and meet a number of farmers on their own turf this summer. However, Neil, Steve, Damien, Doug, Sue, Lucy, Mandy and Andrew work with you on a regular basis and I get excellent feedback from them.

Thank you for all the support you have given me this year. Keep the phone calls coming. I am particularly grateful for the assistance I get from the dedicated and hard working team that I work with. We have some challenges to face next year but I am confident that we can overcome them together to make Falklands farming a success.

EVERYONE IN THE DEPARTMENT OF AGRICULTURE WOULD LIKE TO WISH ALL OUR READERS A MERRY CHRISTMAS & HAPPY NEW YEAR. THANK YOU FOR YOUR CONTINUED CUSTOM & SUPPORT.

AN ISLAND LOCUM

Joe Hollins, MRCVS

'Take a land mass the size of Wales,' an ex-RN friend of mine said. 'And toffee hammer it into 420 pieces – and you have the Falkland Islands.' I was astounded. 'That big?' I exclaimed. Really I had no excuse not to know. Twice I had tried to get here before, once as an impoverished student doing the gap year trawl of South American cultures – but I ran out of time, money and season; a second time as a veterinary student wishing to 'see practice' – but the war intervened. 'And what's it like?' I asked my friend. 'Gaunt,' he replied. 'Gaunt and stark – but when the sun comes out, strikingly beautiful. And it'll hold a part of you forever.' And so it will.

When Steve Pointing contacted me and kindly offered me a month-long post as locum veterinary officer at the DoA, it seemed as if destiny was at last fulfilling her promise of bringing me here. I have not been disappointed. Quite the opposite – the Falklands have, in every respect, exceeded all my expectations.

My motivation to become a vet had been triggered early, I was reared in a rambling old house encircled by flocks of assorted free range poultry, hordes of dogs and cats, a solitary fattening pig, a random orchard, and swathes of unkempt vegetable gardens. We kept a fishing boat on the estuary and I shot lobster pots, netted creeks, and trolled for mackerel. It was a good upbringing in touch with the realities of nature and bucket-fulls of wholesome dirt.

With 2 years between school and university, I worked my way to Australia and became well and truly blooded as a pommie jackaroo in central Queensland. This was *mulga* country, where stock sup artesian water from bore drains and grazes the leaves of the *mulga* bush, dying through ignorance if moved onto grass. It opened my eyes to the pragmatism of ranching, from the mulesing of 2,000 yearlings (literally skinning their buttocks with hand shears to prevent fly strike), to the full muster of 120,000 hectares for shearing, jetting, and with the cattle, branding, de-horning and castration. Weekends were spent hunting the pestilential wild pig and goat, and shooting roo and emu for the dogs. Here I learnt to work my bike like a dog, and my dogs, on pillion and petrol tank, like nimble accessories to bend and flow a flock almost as a shoal of fish. But the dogs were never used on cattle, the grazier fervently believing that 'hocking' cattle simply trained them to kick.

I went on then to the tamer life of South Island, New Zealand, shepherding and working on the Orari Gorge Poll Hereford Stud. After 5 months travelling South America, picking up colloquial Spanish and getting as far south as the wine country of Mendoza, Argentina, I began my long veterinary degree at Cambridge University. This, I hasten to add, is not just a place for the elite; it was hard to get into and I never lost my appreciation for simply being there among its dreaming spires.

From here, other opportunities arose. I was Medical Officer on a Royal Geographical Society backed expedition to the volcanic wilderness of northern Kenya. With absolutely no surgical experience under my belt bar how to dissect a dog, and the pre-advice that a bite from our resident snake, the Black Mamba, could only be treated with valium while the victim died, I thought, God help us! But the expedition was a great success and begun my enthusiasm for Africa.

As a qualified vet, and after several years in a good mixed UK practice, I worked for short periods in Zimbabwe and South Africa, and have since become involved in the preservation of

rare endemic mammals within the Simien Mountains National Park, Ethiopia. Here, a tiny fragile success for the beleaguered animal kingdom. Acting as central fund-raiser I brought over an extremely able park officer for further training in the UK, a 1 year MSc. Just a drop in the ocean, I thought. But Endalk has proven to be a deluge. In a few short years, through measures such as pastoralist education, training, poaching patrols, fines and incentives, he has overseen a surge in animal numbers. It is truly remarkable how nature, given a lift, can resurrect itself.

Which brings me to the Falklands. The first thing that struck me was the crystal quality of the light, the broad open horizons, and the ever present smell of the foreshore – oh, and the wind of course! For surface area the Falklands must surely have one of the longest, most indented coastlines in the world. Now I have been awed by the wildlife, completely won over by the quaint and colourful charm of Stanley, and fascinated by the hard practical existence of the camp settlements.

The veterinary work has been inspiringly different, my few weeks here being punctuated by surreal experiences: the night-time calf eye removal in one of the best-lit thrown-together barn operating theatres I could hope for (thanks, David!); the emergency flight out west for an extraordinarily precocious heifer caesarian in stunning surroundings (thanks, Jimmy!); recovering to the wonderful strains of the accordion after rodeo-ing a wild stallion with a torn knee (thanks, Maggie!); devouring *tapas* after a hold inspection on a fishing boat in Port William (thanks, Tom!) – to name but a few. I have been genuinely impressed by the farmer's eagerness to learn and to grasp the 21st century. I can see the Falklands prospering through the growing niche markets: quality fish from the unpolluted waters of the South Atlantic, disease free meat raised in organic conditions (which hopefully will put an end to freezers full of imported beef in the local shops), fine wool for the fashion houses of Europe, and highly lucrative low impact eco-tourism.

Everywhere I have gone, a complete stranger, I have met with friendliness and hospitality. To all whose paths I have crossed and who have crossed my path, many thanks. Clearly I am hooked, and I hope one day to return.

EIGHTEENTH WEST FALKLAND RAM & FLEECE SHOW 2004

This will held at Coast Ridge Farm wool shed at Fox Bay Village on 28th December 2004.

Before the event entries may be sent to:
Fox Bay
C/o N Knight
Coast Ridge Farm
Otherwise entries can be brought to the wool shed on the day
between 9.00 a.m. – 12.00 noon.

Judging will commence at 2.30 p.m. – 4.00 p.m. and be by public ballot.

Prizes will be presented at 6.00 p.m. All times are Stanley time.

All the usual classes/events/prizes.

FERTILISER RATES - HOW DO YOU KNOW HOW MUCH TO USE?

Stuart Doyle

Not knowing how to calculate fertiliser rates or how much of each nutrient is contained in fertiliser can lead to costly errors. Too little fertiliser or the wrong type of fertiliser can lead to poor performance; similarly the over application of fertiliser is a waste of money.

"20;10;10 – what do the numbers mean?"

Fertiliser's worldwide are labelled to show the user how much of any one nutrient is contained in the product. Depending on where the fertiliser is manufactured this may vary slightly, however there is a world standard as to the order in which the nutrients are listed. The sequence of numbers such as '20;10;10' signifies the % of the nutrients named per volume of product. The nutrients are listed in the following order Nitrogen (N): Phosphorus (P): Potassium (K): Sulphur (S): Magnesium (Mg): and Calcium (Ca). Each number represents the percentage of the nutrient in the fertiliser – and sometimes also listed toxins or trace elements such as Zinc (Zn) or Copper (Cu).

Understanding this labelling system will help you to differentiate between fertiliser products and allow you to find the most cost effective method of applying several nutrients with one product.

A typical analysis of **urea** would be 46:0:0, this shows that the product contains 46% nitrogen and no other nutrients, the balance is made up of inert material.
DAP (18:20:0:0:0) contains 18 % nitrogen (N), 20 % phosphorus (P), no potassium (K), no Sulphur (S) and no magnesium (Mg), many companies shorten the numbers to 3 figures such as 20:10:10, indicating only the major elements – you have to assume that such a fertiliser contains no other nutrients in useful quantities. The nutrients are always listed in the same order to avoid confusion

How Much Fertiliser should I apply?

That is a good question in the Falklands – however usually an advisor (or manual) will suggest that an amount of N, or P is required for a given crop. To calculate how much fertiliser is needed to supply the recommended amount of N, or P you should use the following formula:

$$\textbf{Rate of Fertiliser to apply to the field} = \frac{\textbf{Required rate of Nutrient X 100}}{\textbf{\% Nutrient in Fertiliser}}$$

For example you may have been advised to apply 50 kg of N to grow a crop of Oats. You have decided to use Urea (46:0:0) as your N fertiliser of choice therefore:

$$\textbf{Rate of Urea to apply} = \frac{\textbf{50 kg of N X 100}}{\textbf{46}}$$

$$= \textbf{5000 / 46}$$

= 108 Kg of urea to supply the 50 Kg of Nitrogen

Based on this formula you can compare the cost of the fertiliser based on the nutrients that it contains rather than the cost per tonne.

CALVING AID

The DoA owned calving jack is kept on West Falkland at Bold Cove. Farmer's are welcome to use this jack, but please note that if you have never used it before, you will need some instruction. To enquire about borrowing the jack and information on how to use it, please contact either:

Veterinary Service on phone: **27366**
Doug Martin on phone **27355**
Jimmy Forster (Bold Cove) **42178**

A CHRISTMAS POEM

A Letter to Santa

Snowflakes falling softly
Upon your window they lay
Your blankets snug around you,
Into sleep you drift away.

I bend to gently kiss you,
when I see that on The floor
There's a letter, neatly written
I wonder who it's for.

I quietly unfold it
Making sure you're still asleep,
It's a Christmas list for Santa
One my heart will always keep.

It started just as always
With the toys seen on TV,
A new watch for your father
and a winter coat For me.

But as my eyes read on
I could see deep Inside
There were many things you wished for
That your loving heart would hide.

You asked if your friend Molly
Could have another Dad;
It seems her father hits her
And it makes you very sad.

Then you asked dear Santa
If the neighbours down the street
Could find a job, that they might have
Some food, and clothes, and heat.

You saw a family on the news
Whose house had blown away,
"Dear Santa, send them just one thing,
A place where they can stay."

"And Santa, those four cookies
that I left You for a treat.
Could you take them to the children
who have Nothing else to eat."

"Do you know that little bear I have,
the one I love so dear?
I'm leaving it for you to take
To Africa this year."

And as you fly your reindeer
on this night of Jesus' birth,
Could your magic bring to everyone
Goodwill and peace on earth."

"There's one last thing before you go,
So grateful I would be,
If you'd smile at Baby Jesus
In the manger by our tree."

I pulled the letter close to me
I felt it melt my heart.
Those tiny hands had written
What no other could impart.

"And a little child shall lead them,"
Was whispered in my ear
As I watched you sleep on Christmas Eve
While Santa Claus was here.

DOG DOSING DATES FOR 2005/2006

Date	Drug
5th January 2005	Drontal
16th February 2005	Droncit
30th March 2005	Drontal
11th May 2005	Droncit
22nd June 2005	Drontal
3rd August 2005	Droncit
14th September 2005	Drontal
26th October 2005	Droncit
7th December 2005	Drontal
18th January 2006	Droncit

NOW LOOK WHAT YOU'VE DONE! It's going to take another bloomin' miracle to bring them back!

WORLD'S FINEST BALE RECORD BROKEN

Source: Landmark – 'an AWB company'

A new world record for the finest bale of wool ever produced has just been set by the Wool Factory of Horsham, Victoria with a bale branded 'Fibre Excellence' testing 11.8u. This continues a stellar year for the Wool Factory having won the Ermenegildo Zegna Vellus Aureum International Trophy for the world's best and finest fleece in April.

The record-breaking bale is to be offered in early December in Melbourne Series 23 sales with expectations of worldwide interest from all key textile-producing markets.

The Wool Factory's 2004 wool clip, including several other bales under 13 micron, is being marketed by Landmark Jackson of Geelong, superfine specialists who have been involved with the wool preparation and sheep selection for the past 20 years of the Wool Factory's operations.

"We have continued to strive for the pinnacle of wool quality and fineness in our wool operation." Said Tony Craig, CEO of The Wool Factory, "This bale branded 'FIBREEXCELLENCE' is just that, not only the finest ever produced but also stylish and sound. It is not good enough for us just to focus on the fineness, excellent processing performance is also paramount." The bale has measurements of 11.8 micron, 68mm in length, a soundness of 40 newtons per kilotex and a top yield of 74.5%.

Jackson of Geelong's Manager, Ted Wilson said "The purchaser of this bale will not only enjoy the kudos of owning the world's finest bale ever produced but also the opportunity of producing a very rare and desirable cloth."

The Wool Factory has been the benchmark for the production of the finest wool in the world since their foundation in 1983. Their commitment to the production of quality super ultrafine wool is world-renowned and this milestone is just another in a successful career as speciality fibre producers.

SHEARERS TURN BACKS ON THE GOLDEN FLEECE

Source: Weekly Telegraph

They once optimised machismo and romance of the Outback, but Australia's sheep shearers are deserting the job in droves, plunging the country's wool industry into crisis.

Low wages. Poor working conditions and the lure of better paid jobs have led to an exodus, with the number of shearers dropping from about 30,000 in the 1980's to fewer than 7,000. Shearing is one of the toughest jobs in Australia, involving long hours spent hauling sheep out of their pens, throwing them on their backs and removing their dirty, tangled fleeces with electric clippers.

A good shearer can get through 200 sheep a day, but the gruelling work takes a heavy toll, leading to chronic back pain and other injuries.

RECIPE PAGE

RAISIN BREAD PUDDING

Ingredients:

16 slices bread – cubed
4 large eggs – slightly beaten
2 tsp vanilla extract
caramel sauce (optional)
1 cup raisins
¾ cup brown sugar
1 tsp ground cinnamon
2 cans carnation milk
¼ cup butter – melted
½ tsp ground nutmeg

Directions:

- Preheat oven to 350°F. Grease 12 x 8 inch baking dish.
- Combine bread and raisins in a large bowl.
- Combine carnation milk, eggs, sugar, butter, vanilla extract, cinnamon and nutmeg in medium bowl.
- Pour egg mixture over bread mixture and combine well.
- Pour mixture into prepared baking dish and stand for 10 minutes.
- Bake for 35 to 45 minutes or until knife inserted in centre comes out clean. Drizzle with caramel sauce before serving.

TRIPLE BERRY REFRESHER

Ingredients:

1 can carnation milk
½ cup raspberries
1 tray ice-cubes
1 container berry-flavoured yoghurt
½ cup strawberries or blackberries
½ cup blueberries
2 – 3 tablsp honey

Directions:

- Place carnation milk, yoghurt, berries and honey in blender.
- Cover and blend until smooth.
- Strain to remove seeds and serve over ice.

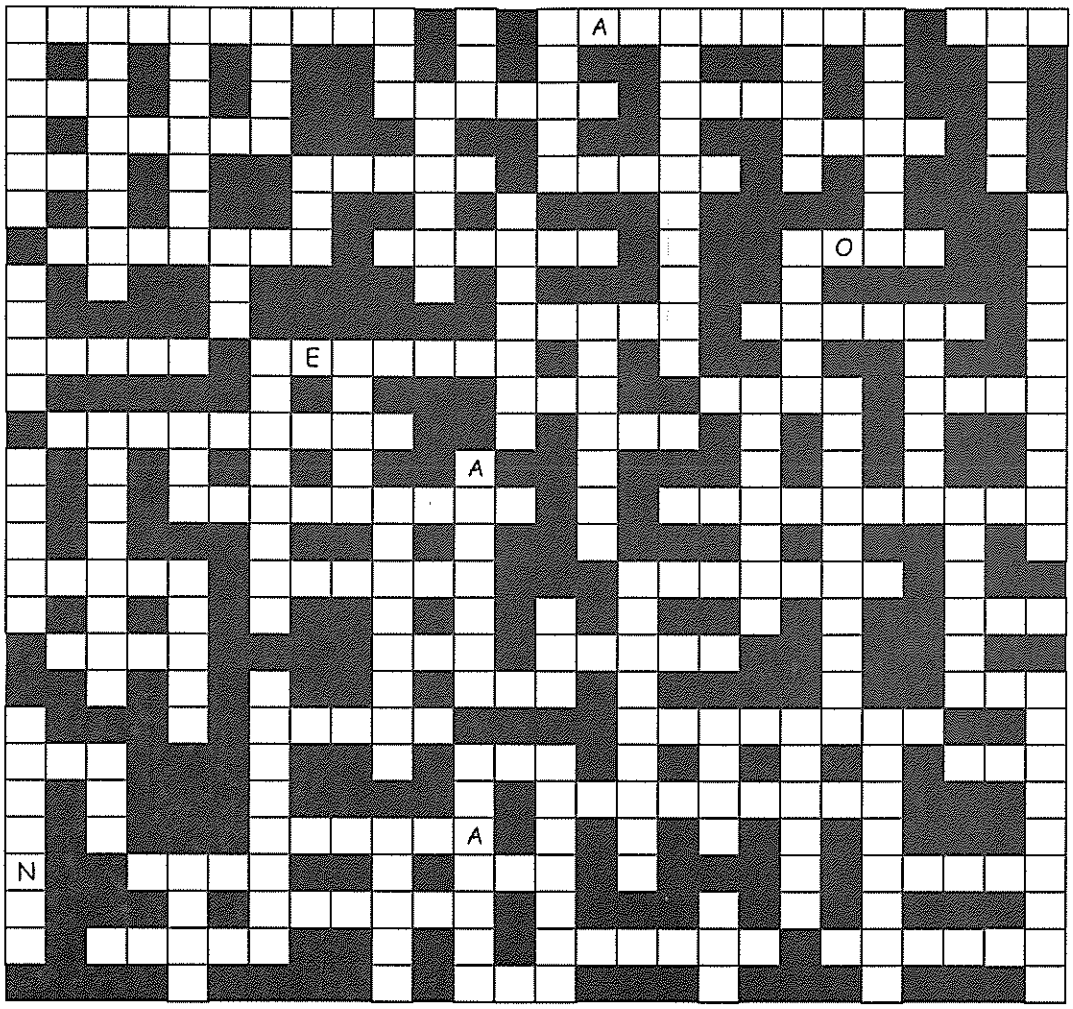
MEATLOAF

Ingredients:

1 large onion – chopped
¾ cup dry milk
2 large eggs – lightly beaten
1 tsp ground black pepper
1 ¼ cups breadcrumbs
2/3 cup water
1 tblsp dried parsley
3 lbs ground beef
1 small green pepper – chopped
½ cup ketchup – divided
1 tblsp garlic salt

Directions:

- Preheat oven to 375 °F
- Combine onion, bread crumbs, pepper, dry milk, water, 2 tblsp ketchup, eggs, parsley, garlic salt and black pepper in large bowl.
- Add ground beef and mix lightly but thoroughly.
- Divide meat mixture in half and shape into two loaves.
- Place in un-greased 13 x 9 inch baking dish. Flatten loaves on top and cover with remaining ketchup.
- Bake for 55 to 60 minutes or until no longer pink in the centre. Stand for 10 to 15 minutes before serving.



3 Letters

ARC
ART
ASK
BIN
BUS
DOG
EAT
EVE
FBI
HOP
ICE
LAB
LAW
MAY
MUM
NAG
NUN
RAM
SAD
SOS
THE
WIT

4 Letters

CATS
CROW
FOUR
HOST
LENT
MEET
RIPE
ROTA
SCAR
WASP
ZULU

5 Letters

ADIEU
ANDES
CREEK
CUPID
DÉCOR
DREAM
EARTH
GYPSY
HARES
HAUNT
IDLED
ITALY
MARES
METAL
OSCAR
OUNCE
ROMAN
ULCER

6 Letters

AGENDA
AMAZON
ASSIGN
DAKOTA
DARWIN
EASTER
FLORAL
FRIDAY
MOHAWK
NUDISM
OXFORD
PISCES
RAINED

7 Letters

ADAMANT
ALABAMA
ANAGRAM
BROWNIE
CARAVAN
CHINOOK
FEDERAL
LAWSUIT
MANILLA
NANNIES
PAISLEY
TENDONS

8 Letters

ALSATIAN
AQUARIUS
ARGUABLE
BROADWAY
FALKLAND
IMMORTAL
ORIENTAL

9 Letters

CAPRICORN
CATHOLICS
DALMATIAN
GAINFULLY
HOOVERING
POLAROIDS

10 Letters

CANTERBURY
HIGHLANDER
MERSEYSIDE
PARLIAMENT
PLASTICINE