THE WOOL PRESS

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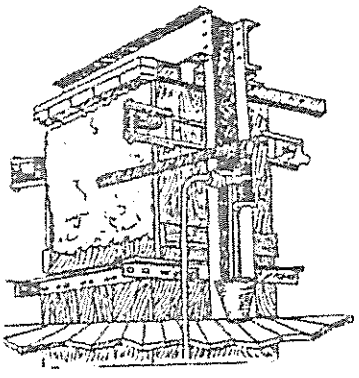

Edited by Siân Ferguson
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EDITORIAL

Animal welfare is of greatest concern in this modern world. Meat importers have requested to see the welfare codes under which we operate in the Falklands as part of the condition of buying Falkland Island meat. Transporting, including loading and unloading, is a major part of this welfare concern. Sheep are off feed before loading, so loading should be fast, efficient and humane. My thanks to Mike Triggs, Leon Marsh and Sian for putting the first article together. Those of you who struggle to load sheep should contact Mike or Leon - or both - and get things 'swear proof' for next season.

Continuing with the welfare theme, if you are looking after your sheep you may as well look after 'man's best friend' - who else would work for raw mutton and keep smiling when you whistle blows a fuse.

Welfare (of sorts) continues into the sea with research on whale standings. Strandings are coveted by journalists and continually in the press world wide. Maybe with Helen's help, and others like her, the reasons will be found and future strandings prevented.

Gordon's article helps those contemplating crop growing with regard to fertilizer/trace element requirements. Copper requirements for animals are different to those required for sheep. Should you think copper deficiency is a problem on your farm contact the veterinary department for advice.

Hope to see you all at Farmers Week - an excellent way to spend a week while the winter chills surround the Islands

The rest of the Wool Press is just a good old fashion read (as always).

Enjoy,

Vic Epstein
Senior Veterinary Officer

For those of you that don't already know, Stanley Electrical have now taken over the printing of the Wool Press (this will be their second month). After a couple of problems last month, printing should now go smoothly and you'll get your favourite publication hot off the press quicker with clearer quality!!

A huge thanks must go to the Printing Office for all their hard work in the past and good luck to Donna and Mel in their new jobs.

WHAT CONSTITUTES GOOD LOADING FACILITIES

By Siân Ferguson

With the completion of this years abattoir export season, now seems to be a good time to look at any measures that can be put in place over the winter months to make the operation run more smoothly next season. One of the problems encountered has been the loading of sheep from the farm of origin on both East and West Falkland. I caught up with the two hauliers to find out what can be done to improve the loading facilities around the Falklands...

EAST FALKLAND

Mike Triggs of Rodeo Farm loads sheep from about 19 farms as well as collecting the West sheep from FIPASS, Goose Green or New Haven. He has also been requested to collect sheep from Saladero, but due to a lack of facilities to turn a large truck around, this was not possible. The truck he uses can carry about 400 sheep (this reduces during the season), depending upon sheep size, wool length and sheep, road and weather conditions.

Loading Facilities

Mike says the general loading is straight forward, apart from the odd stubborn animal, which most farmers have to endure. He did mention that depending on the time of day, location and sun angle, the suns reflection off the truck can sometimes make the sheep nervous. In order to load sheep at a farm, Mike reverses a trailer to a drafting race, linked to a shed, fixed or mobile pens, corral or any other means of holding sheep. Loading can commence from ground level. For settlements that don't have a suitable road or large enough turning facilities to manoeuvre the truck, farmers can move their sheep to mobile pens set up by the road in an area suitable for the truck for collection.

Other points

During Mike's experience, one loading area may differ to another but the principle remains the same and farmers have always given full co-operation including liaison and communication prior to collection. Sheep need to be dry for transportation as this helps to prevent humidity build up within the trailer and the added weight of wet wool causes sheep to fall over which results in stressed, bruised and dirty sheep being delivered, with possible suffocation on route. It is also important to let the sheep 'empty out' before removing them from feed the night before transportation. This helps prevent them from cramping and going down during transportation which again results in stressed, bruised and dirty sheep being delivered. Apart from suffering inflicted, death can also occur.

WEST FALKLAND

Leon Marsh from Rincon Ridge has collected sheep from 20 different farms on the West, although he has stopped collecting from two of them. Depending on sheep size, he can carry between 100 and 112 sheep and up to 130 lambs.

Loading Facilities

Leon says it is very time-consuming to unload, assemble, disassemble and re-load the ramp and hurdles he uses for loading sheep when there are no other facilities available. The sheep are slower to actually load onto the lorry as opposed to straight from a shed or raised pen. The two ideal options for loading sheep are either a raised pen, with the bottom of the opening 4ft from the ground and quite small, ie to hold about 14 to 16 sheep fairly tight or a door from the side of the shearing shed, again 4ft from the ground, although this may not be possible due to the position or style of the shed. For both of these arrangements, it is ideal to have a sliding or guillotine door/gate and there needs to be some room for manoeuvring the lorry. The ramp is not used at Port Howard for unloading sheep, so if there is more than one load to be collected from a farm at once, some time is saved by not having to load and unload the ramp and hurdles.

Other points

Leon added that all farmers have already carried out any simple measures for making loading easier and quicker, with some making efforts above and beyond the call of duty!! He says farmers are flexible and accommodating and he would hate for anyone to think this article implies differently.

Many thanks to Mike Triggs and Leon Marsh for their contributions towards this article.

COPPER AND ZINC STATUS OF FALKLAND'S PEAT SOILS

By Gordon Lennie

Samples from 30 different farm sites, ranging from greens/reseeds/ whitegrass camp /forage crops/diddle- dee camp and soil survey areas, were recently tested in the Department of Agriculture's laboratory for DTPA extractable levels of copper and zinc (mg/kg in air dry soil). The results indicated that 72% of the soils tested were potentially deficient in copper (0.1- 0.4 mg/kg Cu), 14% were marginal (0.4-0.6 mg/kg Cu), 11% were marginal-adequate and 2% were adequate. The range levels shown in brackets are the soil copper levels for deficiency diagnosis (0-6 in. depth) of mineral soils.

These results were not surprising because organic (peat) soils are very prone to copper deficiency. The high levels of organic matter (< 10%) means that the soil is more likely to be deficient in copper. The copper in the soil is strongly bound to the organic matter containing humic/fulvic acids and hence is largely unavailable to plants. Zinc levels ranged from 8% in (deficient range <0.5mg/kg Zn), 38% of samples (medium range 0.5-1.0 mg/kg Zn) and 54% (adequate for crops) >1.0 mg/kg Zn. These figures would indicate that zinc is present in adequate amounts in most of the areas tested and a response to zinc fertilizers would be minimal. Local species can vary in their sensitivity to copper deficiency. The usual order of sensitivity (response) is winter wheat>spring wheat>barley>oats>triticale>rye. High levels of phosphorus, iron, manganese and aluminium may also restrict copper absorption by cereal roots.

Copper's role in plant growth:

The important plant functions, which require copper, are chlorophyll production, protein synthesis and respiration. About 70% of the copper in plants is found in the chlorophyll. Copper deficiency in plants can cause early ageing or lowered levels of chlorophyll, which can lead to yield reductions that go unnoticed if the deficiency is not severe.

Copper deficiency symptoms:

Copper deficiency in cereal crops can produce characteristic symptoms which may be similar for each species. Crops growing on marginally copper deficient soils may have losses of 20% or more in grain yield without showing any visual signs of deficiency. The most severe symptoms would include the following: -

1. Limpness or wilting at mid-tillering, pale yellow.
2. Curled young leaves at tillering.
3. Retarded stem elongation.
4. Delay in heading.
5. Head and spikes are normal (spikes are devoid of grain).
6. Grain appears shrivelled and endosperm is black.
7. Delay in maturity (delayed several weeks).
8. Stem melanosis , stem below head turns brown resulting in empty florets and shrivelled grain.

Triticale and oats grown in the Falklands are two cereal crops which do not appear to produce much grain at heading. It was assumed that the short growing season was responsible for lack of grain production. However, another possibility worthy of further examination could be the low copper status of the peat soils here. The DOA will be examining soil copper status and crop response in the coming season.

SOIL TESTS FOR DIAGNOSIS OF COPPER DEFICIENCY

A soil sample must be taken if copper is suspected of being involved in poor yields. However because soil testing is not a precise science when dealing with trace elements it is strongly recommended that the first action in response to a low copper reading from a soil test should NOT be broad acre fertilisation with a copper fertiliser but rather, careful observation of crops for signs of copper deficiency and secondly copper fertilization on test field strips. These could be 10 metre by 1 metre wide and marked out along fence lines for easy visual comparison for the farmer. The

required amount for 10 square metres would be 60g of Copper sulphate dissolved in a few litres of water and watered in or using a knap sack sprayer. Copper sulphate is poisonous so disposable/rubber gloves should be used when handling the product.

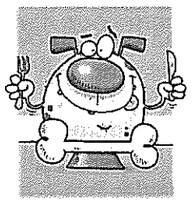
Copper sulphate fertilizer:

Copper sulphate, also known as bluestone, is the least expensive source of copper. It contains 25 per cent copper and should be broadcast and incorporated into the soil at a rate of 60kg/ha. This is the recommended rate for peat/organic soils. A one-time application could last up to 10 years or more. The copper sulphate is available as a fine or crystallised material. It tends to accumulate moisture and is difficult to blend with other fertilizers.

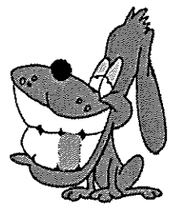
It can also be dissolved in water and sprayed onto the soil surface or as a foliar application. It is also highly corrosive in contact with metals, so stainless steel /plastic components are essential on a fertilizer applicator sprayer. The dust from this fertilizer causes irritation to the lungs and skin and eyes and so proper safety precautions need to be taken when handling the fertilizer. Crops which could potentially respond to extra copper would include triticale/ wheat /barley and oats. Any farmer who would like to discuss soil copper should contact the DOA.

QUIRKY ANIMAL TAILS

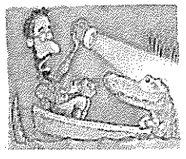
The Chinese village of Sanjiang spent around £860 on a fish banquet for more than 200 cats to thank them for their hard work. The villagers decided to reward the cats for the good harvest they expect this year as a result of the cats being released in 250 acres of land to control the rats.



A new restaurant in China - the Paradise Pet club - allows customers and pets to eat at the same table. The menu features meals for dogs along with drinks and snacks for their owners. It was intended just for canine companions but people have also started taking along their cats, rabbits and other animals.



A Bosnian dentist has given his pet dog a gold tooth as a reward for his loyalty. The Russian terrior is said to know the gold tooth is special and often shows it off because he knows it is something different and special. His owner said he deserved a special tooth as he is so loyal and special and has no fear of thieves trying to steal the dog for the gold tooth as the terrier is not a dog that would allow himself to get stolen.



A Costa Rican man has adopted a 16 foot crocodile as a pet after finding it with a bullet in it's head, in a swamp. He took it home and it took four years to nurse the croc back to health. The owner claims it has never done anything to hurt him and even eats off his hands (?!). People pay to see him playing with his pet and the owner now wants to put together an exhibition to show the world their friendship.

The Austrian owner of a 22 year old Dachshund says the secret of his dog's long life is cigarettes. The old owner abandoned him and the Austrian noticed straight away he was in the habit of eating cigarettes. He chews on about 10 cigarettes a day, eating the tobacco paper but chews on the filter for a while before spitting it out. His local vet says nicotine normally leads to poisoning in dogs, but in this case the animal has obviously become addicted to it which has increased its level of tolerance.

KENNEL DESIGN

By Joe Hollins

It is time once again to review the state of kennelling for farm dogs. This subject has been a perennial issue, and with good reason. Kennels don't last forever – materials deteriorate and dogs destroy the fabric – so rather than giving the old dilapidated set a makeover, consider a completely new construction and incorporate some more contemporary, dog-friendly ideas.

The intent of this article is to point out some pros and cons of different designs, and to reiterate the basic guidelines that must be adhered to in all cases. Ultimately, the actual design that suits will depend on finance, materials available, number of dogs, terrain, drainage, and exposure to prevailing winds. There may be some financial assistance available through the labour scheme, subject to satisfying certain requirements. Application may be made through the normal channels at the DoA.

Basic considerations:

- Protection should be given from the elements. Consider the prevailing winds, and summer shade from the high UV sun. The sleeping area should be ventilated, but not draughty. Slats may need shielding from up draughts.
- Food should be provided in such a way as to maintain good health and body weight. Don't feed offal! Attention should be paid to dominance/bullying and different individual requirements. Feed dogs individually according to breed, age, body condition, work demands etc. This will sometimes require separate kennelling.
- Construct in a way to make cleaning quick and easy. Dog excreta and food debris should not be allowed to accumulate. This includes regular cleaning of the sleeping area, so design it to be accessible.
- Drainage. Surface materials for the standard run area should be easy clean and provide good drainage. Incorporate slopes into concrete runs, and external guttering to direct effluent into a container or sump.
- The run area should allow dogs to look out around them without difficulty. Boredom causes vices and behavioural problems.
- The minimum size of a double cage has been recommended at 12'x 6'. Consider this a bare minimum. Try to provide more.
- Provide proper exercise on a regular basis free from the cage. At the same time consider incorporating an additional long (rather than square) grass run, accessible from the kennels, for unsupervised exercise.
- The design and the finishing of the materials used should not cause injury. Look out for sharp edges, raised nail heads, exposed wire ends etc.
- Water should be available at all times. Beware freezing in cold weather.

The run area - concrete vs. slats vs. grass:

Concrete:

For:

- Easy clean/good drainage readily established.
- Durable
- Encourages a routine of cleaning out, including old bones.

Against:

- Cold.
- Hard – causes calluses on bony prominences.
- Needs good foundation to prevent cracking.

Slats:

For:

- Warm and relatively soft on bony prominences.

- Theoretically self cleaning.
- Good drainage.

Against:

- In practice not self cleaning. Excreta still lodges between the slats, along with bones/ food debris. The assumption of self-cleaning can result in less attention to hygiene.
- Can be draughty. This is a matter of shielding the under-kennel area against up draughts. At the same time, full enclosure would result in heavy ammonia fumes rising up into the accommodation area, so it still needs to be ventilated. Design for correct ventilation needs to steer between the extremes of stagnant air and draughts.

Grass:

For:

- Cheap, so easy to create large runs.
- Soft, warm, draught free.

Against:

- Rapidly becomes dog weary, especially in winter. The digging, constant trampling, and high concentration of urine kills the grass, and exposes the soil or peat.
- Almost impossible to clean. Faecal matter, especially after rain, becomes bonded to the ground.

Conclusion:

There are suitable compromises to be made that, with good management, pick out the advantages and push aside the disadvantages. For example, a combination of wooden pallets placed on a concrete run area provide the dogs with raised, relatively soft, draught-free lying areas, and it would be unusual for dogs to foul them. Pallets can be easily removed for cleaning and cheaply replaced. Grass runs as the sole run area will generally result in a muddy unhygienic mess. But with good management they can form the basis of extensions, especially long exercise runs.

READERS VIEWS

The following letter was received from Justin Knight, Fox Bay.

Regarding Damien's slightly biased article on direct drilling at Sheffield in last months Wool Press. It is fairly obvious to most, I would have thought, that planting straight into native pasture is going to be cheaper than the traditional approach of rotavating. Other advantages, burning of the trash being much more controllable also if you have a wet area for planting in the spring the chance of machines being bogged is unlikely.

The hire of the direct drill is £3 per hour, this is a highly subsidised rate as a machine that has a capital cost of £13,000+ and with high maintenance costs, should have a hire rate which is in the region of £8-£10 per hour. Tractors plus all implements in the DOA pool including the operator is £22 per hour total.

In the traditional operation of rotavating, the area is rotavated, burnt and then sown. Very rarely is an area for crops rotavated twice. If you are using the same piece of ground for crops for 2-3 years there are other methods of cultivation, these being Power Harrowing 1.5 hectares per hour or Discing 2.5 hectares per hour. In some cases if the crop has been grazed properly there is no need for any cultivation.

I am not opposed to other methods of establishing fodder and pasture crops, most establishing methods have been tried in the past. In the 1950's F.I.C direct drilled some 12,000 acres; the results compared poorly with ground that had been previously cultivated.

The main problem then was difficulty of the seeded plants establishing themselves due to competition from the plants in the existing sward in respect both of shading and for the available plant nutrients in the soil.

WEATHER FOR THE SECOND QUARTER

By Siân Ferguson

Sadly I don't get the chance to wittle on about everything and nothing in the editorial, so you must be content with putting up with my rambling before you get to find out about what the weather has been doing over the past few months - statistically that is, I'm sure everyone would have noticed if it was sunny, raining, snowing etc!! Well sadly I didn't get the chance to enter the mid-winter swim this year due rather hectically (and stressfully, think I still owe my dad supper for all his help!!) moving house. I did hear that the three vets, Frans, Vic and Joe, took part in all the madness, perhaps something has to be said for that?!

Other than that, it's been an event free month, although the past week has kept me very busy dealing with all the Stock Return forms that have been flooding in all at once. Thanks to everyone who has sent them in on time - others beware, I will be chasing you up!!

Well, onto the weather!!

April

Temperatures were just above average. It was a wet month all around the Falklands and there was also two days of hail, two days of snow/sleet and one day of thunder, but no fog. Sunshine hours were well above average at 126.4 with the highest daily total of 9.7 hours being recorded on Sunday 9th. There were only five days with no sunshine recorded. Mean wind speeds were around average, with the highest gust of 66 knots being the highest recorded for April. There were four days of gales, well above the average of 2.3, and gusts exceeding 33 knots occurred on 18 days, which is also above the April average.

May

Temperatures were well above average throughout the whole of the month. Rainfall was just below average for most of the Islands. Six days saw hail, six snow or sleet and there was one day with thunder and five with fog, all around average. Sunshine hours were above average at 99.8 with the highest daily total of 8.6 taking place on Sunday 7th. There was a total of six days with no sunshine recorded. The first half of the month (which included my birthday!!) was significantly wetter than the second half. Wind was well above average with the highest gust nearly reaching the record set for May. There were ten days with gales which is well above average and gusts exceeding 33 knots were recorded on 18 days, well above the average of 13.1.

Apologies, but due to time constraints, we were unable to include the weather summary for June in this month's addition, but rest assured, it will be making an appearance alongside July next month. We have managed to give you most of the rainfall totals for this year though.

Location		Jan	Feb	Mar	Apr	May	Jun
Stanley	2006	56.5	42	39.5	76	30	41
	Average	*74*	*57*	*59*	*58*	*58*	*50*
MPA	2006	89.2	32.3	45.2	61.9	47.4	72.8
	Average	*63*	*46.5*	*56.8*	*54.1*	*49.5*	*58*
Bleaker Island		135	52	37	43	26	66
Cape Dolphin		52.5	24.5	22	50.5	39	-
Darwin		63	20.5	25.3	20.5	25	-
Elephant Beach		64	37.5	37.5	59	34	64
Fern Ridge		-	-	35	57	58.5	63
Head of Bay		77	38	40	68	-	62
Moss Side		53	29	36	57	46	58
Paragon		-	-	-	42	43	18
Pebble Island		66	26	22	60	45	43
Port Howard		131	48.8	48.5	71.5	82.5	80.5
Saladero		56	26	37	26	45	-
Shallow Harbour		-	19.6	33.3	51	47.5	48
South Harbour		30	10	28	30	40	45
Swan Inlet		66.5	24	45.5	49.5	43	72
Wineglass Station		87	32.5	36.5	66	62	63

DRY ROT IN BRASSICA CROPS
SWEDES AFFECTED ON FALKLAND ISLANDS FARMS

By Doug Martin

• Dry rot (*Leptosphaeria maculans*) is a fungus that can only survive if a host plant is present (e.g. brassicas, Shepherd's purse, Wild turnip), as it cannot survive on the soil itself.
• Plants are invaded through the stomatal openings and through wounds caused by moisture stress, insect pressure and nutrient deficiencies. Therefore a difficult growing season will result in more dry rot pressure.
• Wind-blown spores spread the fungus from crop to crop however, the major contributor to dry rot infection is the presence of crop residues from the previous season.
• Once dry rot infects a crop it then spreads quickly via leaf movements, soil, raindrops, insects, animals or implements that carry the fungus from plant to plant.
The incidence of dry rot is higher in wetter seasons and damp low-lying areas.
In young and small bulbs the result of dry rot is quick decay and often death, whereas larger bulbs are unlikely to rot completely. Instead they are often affected by secondary infection of soft rot that frequently gains entrance through the dry rot lesion and can result in serious crop losses.

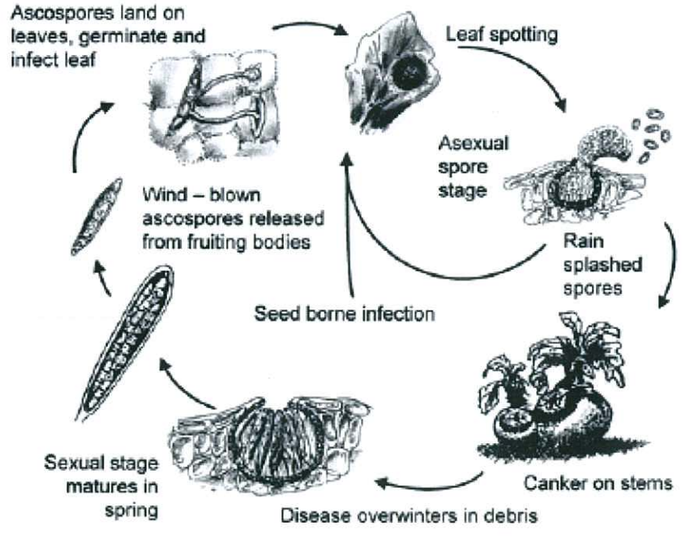
These two pictures were taken from farms on East and West Falkland

How to minimise the impact of Dry Rot on brassica crops?
• To prevent or limit dry rot infection keep an interval of six years or greater between brassica crops.
• Ensure good crop hygiene by removing all previous crop residues prior to sowing via cultivation. Plough ground that will be second cropped into swedes.
• Try to remove cruciferous weeds prior to cropping e.g Shepherds purse, wild turnip.
• If disease is present in first year crops then it may be possible to sow a leaf brassica or kale if the paddock is to be cropped again.
• Some Swede varieties are more tolerant than others. For example the PGG/Wrightson varieties Winton and Aparima Gold have more tolerance than Highlander and Major Plus.
• Ensure paddock history is recorded.

Summary – Dry Rot
Dry rot also affects turnip, rape, cabbage and kale crops, but to a lesser extent than swede crops. Seed does not cause dry rot. A trial conducted in New Zealand showed that a level of more than 6% seed infection was required for significant initial infection. A level of only 0.24% seed infection was measured on commercial machine dressed seed, which categorically ruled out seedborne infection as a factor in dry rot infection. Dry rot is best controlled by destroying all brassica crop residues, preferably by adequate burial. Deep ploughing paddocks between crops is recognized as the most effective method, however this will not be possible in most cases in the Falkland Islands. This will not stop the dry rot, but will minimize the losses.

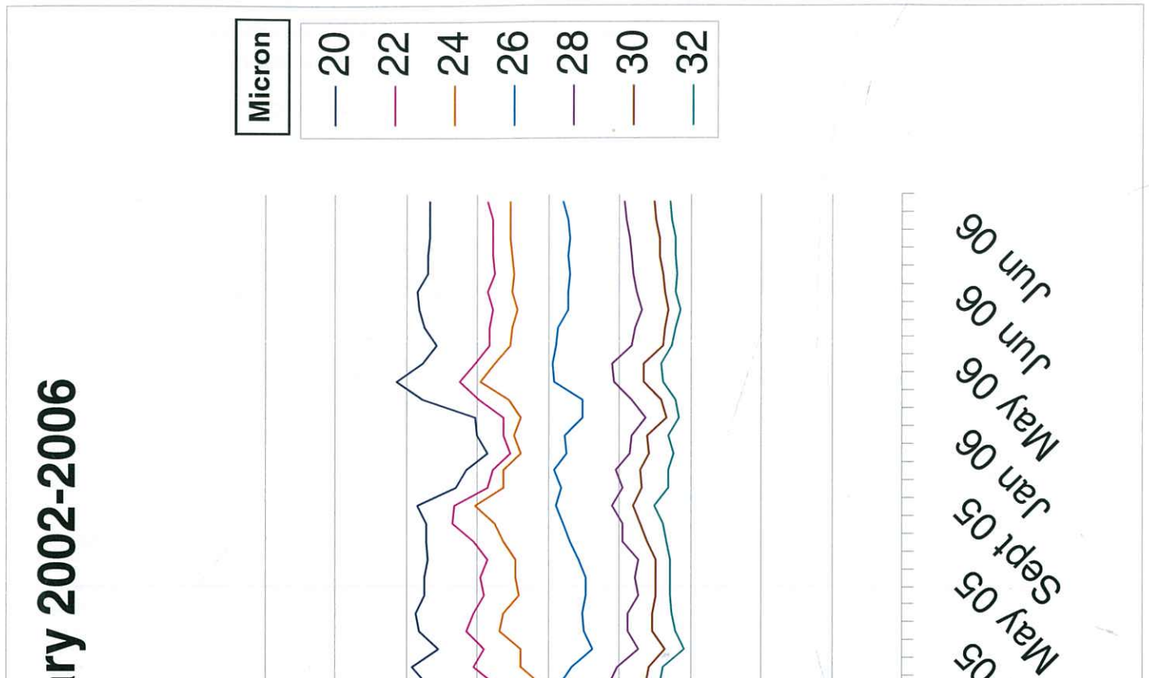
Rotating crops in a four to six year cycle will not only reduce the incidence of dry rot, but also another disease, clubroot.

Life cycle of dry rot in brassicas



WOOL PRICE TREND OVER TIME

Based on weekly DOA Wool Reports



FISHERIES DEPARTMENT SET TO INVESTIGATE WHY WHALES STRAND

By Helen Otley, Fisheries Scientist - Pilot Whale Project

It's an upsetting event - a majestic whale stranded and dying on a beach. Clive and Rosemary Wilkinson of Dunnose Head had over 200 Pilot whales strand and die on a beach close to their home in 1997. At Elephant Beach, Pilot whales have stranded in 2000, 2002, 2003 and yet again in 2004. In 2003, FIGAS pilots reported nearly 300 stranded Pilot whales along East Bay on West Falklands. A beaked whale was found near North Arm only last year. Why do they do it?

Since the 1960's, many reasons for strandings have been put forward, but recent research from southeast Australia seems to be finding some answers using long-term records of strandings. Scientists at the Falkland Island Fisheries Department are now beginning to investigate strandings here to find out whether the important factors identified in the Tasmanian study might also explain why whales strand in the Falkland Islands. If we know under what situations strandings are more likely, landowners and volunteers can be more prepared to respond.

Tasmanian biologists collated records of whale strandings across southeast Australia going back to 1920 and then linked them to climate and oceanographic conditions and ocean features such as current and bottom topography. Some years had many more whale strandings than other years and the clear common feature was not oceanographic or factors related to coastline features but the strength and the direction of the wind. When there was more westerly and southerly winds, which pushes nutrient rich Antarctic waters close to the shores of Tasmania and southeast Australia, more whales stranded. Naturally, because whales were feeding closer to the coast, their propensity to strand was higher.

Exactly why each pod or individual whale gets stranded still isn't well understood and may relate to features of the coastline, current or disorientation and physical trauma from noise pollution from sonar and other ship acoustics. But if we can identify when the propensity for strandings is higher, landowners can be on the lookout and potentially disturbing activities (i.e. those involving seismic or sonar operations) can be scheduled for periods of lower potential abundance of whales.

As part of the investigation of the 2001 - 2004 pods of stranded Pilot whales, the Fisheries Department wants to collect and collate all stranding records of all species of whale. Recent stranding records have been complied but many details are incomplete and strandings before 1990 are not really known about.

To obtain a copy of the records collated so far and for more information about the project, please contact Helen Otley at the Fisheries Department on 27260, hotley@fisheries.gov.fk

A dead Pilot whale lies only metres from the sea.
It was part of a pod of 27 Pilot whales seen stranded at Elephant Beach by Mike and Sue Morrison on May 13th

CAREERS FAIR (OR NOT SO FAIR!!)

By Siân Ferguson

After rushing around like headless chickens for a couple of days, Lucy and myself finally finished collecting and presenting an array of information for the Careers Fair - only to arrive at the Town Hall to set up while the building work was still going on (miles of chipboard being screwed in all over the place and everyone shouting to keep the noise down as court was in session) to find out our stall was more than double the size we were prepared for!! Luckily we had arrived early, so dumped all our stuff on the floor, zoomed back up to the office and ransacked the whole department looking for any poster or picture that would fill up some space (while still being informative of course!!).

Lucy rushing to get the last minute preparations ready before the troops arrive

So, after much work, fighting with the laminator and wondering if we were ever going to be ready, Careers Fair finally came around (a couple of days seemed like weeks I swear) and there we were sipping away at cups of tea when the first hoard of students came bounding in. Quite sure of getting bombarded with questions as ours was the first stall, it was quite disappointing when they all raced to the end of the hall, but turns out Careers Teacher Louise Taylor had arranged for First Secretary Harriet Hall to open the Fair with a speech on the stage, so suppose we could forgive them for that, especially as we quite busy most of the time students were in the hall. I say most of the time, as those sneaky Lookout Lodge people were giving away free mousse and so the students tended to head straight there, before moving onto to other displays.

The most common question of the day had to be "How much do you get paid?" and tempted as we all were to reply "not enough" departmental loyalty prevailed and FIG grades were muttered, which probably had no meaning what-so-ever to any them!! The only drawback had to be on the last day when Sam Elliot from the Radio Station came lurking around with a microphone and Joe pushing me into giving a quick interview, which wasn't fair; it's a lot scarier being on the other end of the microphone when you don't have a list of prepared questions I can tell you!! All in all, the preparation was worth it in the end and it was quite fulfilling explaining all the different trials and projects going on within the department to a (mostly) eager audience; admittedly most of the younger one were just interested in the x-ray pictures and hydatid cysts; but as the boss most unbiasedly said, the DOA display was the best one there!!

The Careers Fair was organised by Louise Taylor of the Community School. A number of companies/ government departments set up stalls and then school children got the chance to wander around and ask questions about different careers opportunities available to them in the Falklands.

FARMERS WEEK 2006

By Siân Ferguson

This year, the Department of Agriculture will be holding all sessions in the main hall and refreshment room of the Town Hall. Camp Education will also be putting up a display in the first floor foyer. We've included a quick guide for the week below, but for more information on the DOA sessions please call us on 27355 or email sferguson@doa.gov.fk or contact the Rural Business Association for their full timetable.

Please note that the sessions in italics during the day are not DOA events - including the evening entertainment.

Monday	Tuesday	Wednesday	Thursday	Friday
Chamber of Commerce	Town Hall	Town Hall	Town Hall	Chamber of Commerce
10.30am - 5pm	8am - 4.30pm	8am - 5pm	8am - 5pm	8am - 5pm
Morning:	Morning:	Morning:	Morning:	Morning:
Tourism in the Private Sector	*FIMCO*	Farm Productivity	Sheep Breeds	*Falklands Conservation*
First Aid/Road Safety	Group Breeding Schemes	Forage Crops	Group Discussion	*Councillors*
	- South Africa Case Study		*FIMCO*	*Road Designation*
				H.E. The Governor
				SAAS Limited
	Smoko by DOA	Smoko by DOA	Smoko by DOA	
		Lunch by DOA	*Lunch by FIMCO/FIDC*	
Afternoon:	Afternoon:	Afternoon:	Afternoon:	Afternoon:
FIDC	Managed Grazing	Veterinary Review	Wool Marketing	*Fire Training at Stanley Airport*
Aquaculture	- Lana Case Study	Disease Surveys	- RBA	*RBA Committee and AGM*
SOA AGM	- Local Case Studies		-DOA	
			- FIDC	
	Stanley House Afternoon Tea	Smoko by DOA	Smoko by DOA	
Evening:	Evening:	Evening:	Evening:	Evening:
RBA Party, Narrows Bar	Government House Reception	FIODA, Town Hall	Hillside	Camp Ed Dance, Town Hall

Other Farmers Week News...

Shorty's Diner

- Wed 12th July evening supper offers 15% discount
- Lunchtime Friday 14th July, free dessert of chocolate cheesecake with your meal

Vouchers available from the Chamber of Commerce

Open House at the Training Centre

Are you interested in undertaking a distance learning course, NVQ, Plant Operator training or starting an apprenticeship? Do you have skills in a particular area which you would like to share with others? Are you interested in applying for a training grant? If the answer to any of these questions is yes, please go along to the Training Centre. They will be open to the public from Monday 10th to Wednesday 12th July inclusive during Farmers' Week. If you are interested in an IT qualification, you might want to have a go at the European Computer Driving Licence in their computer training suite or find about e-QUALs, a new IT qualification, which they hope to introduce over the next year and which would be ideal for people living in Camp; all you need is access to a computer. Young or old, there should be something to suit everyone. You can find us tucked away at the back of Stanley Services. If you can't come during Farmers' Week, they will be pleased to see you any time. Please contact Training and Development Manager Eileen Davies on 27133 for more information.

ELECTRIC FENCING SOLAR PANEL SELECTION GUIDE

By Doug Martin

How does a solar system work?

A solar panel is made up of a number of photovoltaic cells connected in series. Electricity is generated between the front and back of each cell. Combined into a solar panel, these cells can produce enough voltage to charge a regular 12 volt battery. The solar panel normally ensures that the battery remains charged at all times. The battery stores the energy generated by the panel, and powers the energizer 24 hours a day.

The solar panel will provide enough charge each day to maintain the battery's charge within its operational range (ideally over 50% charge). The solar panel selected should be able to replenish energy used by the energizer each day, so as to keep the battery in a healthy charge condition.

Any additional energy available above this daily requirement can be stored to improve the state of the battery, if not already fully charged. (The opposite also applies. If the energy generated does not meet the 24 hour energy requirement of the energizer, the total charge in the battery will decline.)

NOTE:
A solar panel will supply a reduced charge to the battery on a cloudy day. However, at night no electricity can be generated, therefore no charging will take place. After a prolonged period of poor sunlight the energizer may discharge the battery such that the battery may be damaged or destroyed. The point above illustrates the importance of choosing the correct combination of energizer, batteries and solar panel to suit the specific geographic location and the operating conditions the solar system will be used in.

There are four main components that make up a solar system.

1. The battery powered energizer
2. The battery (or battery bank)
3. The solar panel
4. The earth system

Step 1. Choose the energizer

There are several factors that must be considered when selecting an energizer:
- The type of stock that will be fenced
- The size of the area to be fenced
- The total length of wire to be electrified and type of fence (single or multi-wire fence)
- The amount of vegetation that could grow onto the fence
- Future plans for extending the fence

As an approximate guide, 1 joule of output energy will power 10km (6.25 miles) of single wire fence, or approximately an area of 15 acres (6 ha). Table 1 shows a common range of energizers appropriate for a solar installation, with maximum output joules indicated. Pulse speed is also important.

Energizers differ in the size and duration of the pulses of electrons they send into the fence line. A good energizer has an intense pulse lasting for 0.0003 seconds. These short pulses eliminate the risk of fire (the pulse is so short that no heat builds up in the wire). Poorer quality energizers have pulse lengths of 0.003 to 0.3 seconds. This longer "on" time may allow sparks to arc and heat to build up. This can cause fires. This will also shorten the life of polywire. (These long pulses will cause polywire to melt where it comes in contact with grass.) Energisers with a pulse speed of 0.0003 seconds are also known as low impedance energisers. This means ability to resist leakages.

Step 2. Choose your battery

The battery must suit the electrical current consumption (milliamps) of the energizer being used, and must have sufficient storage capacity to provide power to the energizer during periods of reduced sunlight (i.e. in winter or cloudy weather). The size of the battery chosen for the solar system will depend on the type of energizer you have selected. More than one battery may be required to supply enough charge and storage capacity for your energizer, this is often referred to as a "battery bank".

Deep cycle batteries are recommended for use in solar systems, as they are more suited to the repetitive power draining and recharging that can occur in solar systems. The use of automotive batteries is not recommended, but may be suitable in some situations. They will only recharge up to about 60-75% of their original capacity. Batteries will need to be house in a box if temperatures fall below minus 10 degrees.

Table 1 provides recommended battery sizes for a range of common battery powered energizers. This table is based on providing continuous operation for periods of up to seven days with little or no sunlight and shows requirements running the energizer at both full power and half power. The correct battery must be chosen as a battery that is too small for the system may be damaged or destroyed over time.

Table 1 Battery and solar panel selection

Energizer (max output joules)	Current consumption		Battery size required to power energizer (Ah) *	Minimum equivalent Peak Sun Hours per day (1000w/ m²/day)					
	Switch	mA		1	2	3	4	5	6
				Panel size (watts) required to power energizer**					
(max 0.5J)	Full Power	70	50	34	17	11	9	7	6
	Half Power	35	50	17	9	6	4	3	3
(max 1.0J)	Full Power	140	50	69	34	23	17	14	11
	Half Power	70	50	34	17	11	9	7	6
(max 2.5 J)	Full Power	340	105	166	83	55	42	33	28
	Half Power	180	50	88	44	29	22	18	15
(max 5.0J)	Full Power	600	180	294	147	98	73	59	49
	Half Power	300	90	147	73	49	37	29	24
(max 9.0J)	Full Power	1200	360	588	294	196	147	118	98
	Half Power	600	180	294	147	98	73	59	49

* Minimum size to provide up to 7 days operation with no sunshine and to suit charging from solar panels.

** Talk to your supplier for available panel sizes

To give some idea of peak sun hours the chart below was provided by Mr. Jim McGhee from the Met Office at MPA.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
Sunshine hours	173.9	230.8	147.5	122.7	108.4	81.4	57.8	90.4	159.5	187.0	209.8	177.0	1746.2
Average daily	5.6	8.2	4.8	4.1	3.5	2.7	1.9	2.9	5.3	6.0	7.0	5.7	4.8
Maximum daily	12.5	14.2	12.0	9.1	7.8	7.4	5.2	9.2	10.8	13.7	14.3	10.2	14.3
Date	9th	8th	3rd	28th	11th	13th	21st	15th	4th	30th	15th	2nd	

Step 3. Solar Panel Selection

If you need to use the energiser in winter an example might look like this:
Two wire electrified. Fence length :25km. Wire length:50km
Size of energiser: 5.0joule (see chart) Battery Size: 180Ah
Panel size: 147watts (3x50watts or 1x100watts + 1x50watts)

It would make sense to train stock in a smaller area and run the system on half power for at least the period of lowest power input. Therefore the system requirement might look like this:
Battery size: 90Ah Panel size: 73watts (1x50watts + 1x25watts)

Better still use an earth return wire which is better in summer when the soil dries.
Single wire electrified. Fence length:25km. Wire length:25km
Size of energiser:2.5joules (see chart) Battery size:105Ah
Panel size:83watts (for full power)

Make sure the solar panels are regulated as over-charging the battery will shorten its life.

Step 4 Choose your earth system

As with all electric fence systems, a solar system requires appropriate earthing. If the location of the solar system is isolated it is even more important to set up your earth system correctly to ensure reliability and low maintenance. Larger energizers exerting more power on extensive fence systems require a larger Earth system capable of capturing electrons (current) returning to the energizer via the soil. Soil types, mineral content, and ground moisture and also fence load are all determining factors that determine how many earth rods will be required.

Table 2 shows the recommended minimum number of 2 m (6 ft) earth rods for given energizers in moist soil conditions. If the system is subject to dry soil conditions, add more earth rods, or for extremely dry conditions, a bentonite salt earth system may be re-

Tilt Angle

quired(available in kit form). Test your earth system to determine the appropriate number of rods required. Using a Digital Voltmeter, test the last earth rod in your system. The display should read no more that 0.3kV. Anything higher than 0.3kV indicates that better earthing is required and more rods must be added.

Table 2 Recommended minimum number of earth rods

Energiser Model (joules)	Min Number of Earth Rods	Energiser Model (joules)	Min Number of Earth Rods
0.5	1	5.0	4
1.0	2	9.0	6
2.5	2		

Solar panel instalation

It is recommended that solar systems with multiple panel set-ups be mounted on a pole extending between two strainer posts for maximum stability. Once the mounting bracket is assembled the panel must be positioned to obtain maximum daily sunlight exposure. Ensure that shadows will not fall on the panel at any time during the year.

The panel should always face toward the equator (facing north in the Southern Hemisphere and south in the Northern Hemisphere). Panel tilt angle will be determined by the latitudinal location of the solar system. As a general rule, solar panels should be set with a tilt angle equal to the geographic latitude, plus 10° to 15°. Table 3 provides tilt angles for example locations. For maximum efficiency it may be necessary to adjust the tilt angle of the panel at different times of the year (down in winter and up in summer).

Table 3 Tilt angle

Near the Equator	Malaysia, Colombia	10°
15° - 30° North or South	Mexico, Nth Australia, Brazil	20° - 40°
30° - 45° North or South	New Zealand, Sth Australia, USA	45° - 60°
Over 45° North or South	Canada, Northern Europe	> 60°

Install earth system

Moist soil is the key to a good earth. If there is no moist soil in the area close to the energizer it is possible to position the rods some distance away and still be effective. Ensure that the earth site is at least 10 m from the earth site of any other electrical system and never connect two or more energizers to the same earth system.

Hammer the earth rods into the ground, leaving approximately 15 cm (6 inches) above ground. The distance between each earth rod should be at least 3 metres (10 ft). Use a suitable wire/ insulated cable and securely connect appropriate earth clamps to join the earth rods in series, and connect to the earth terminal of your energizer. For maximum earthing effectiveness in dry conditions, use an earth wire return fence configuration.

Recycling for Charity

Siân Ferguson & Katrina Stephenson are on the look out for any old inkjet cartridges (sorry we can't handle the laser ones), mobile phones or stamps that you would normally dump. Just pass them onto someone coming into town to drop them into Mineral Resources or up to the Department of Agriculture - or just pop them into the post to PO Box 272.

We will be loading them on any friends and family who are off to the UK to send Freepost to three charities, Guide Dogs for the Blind, Tommy's (Great Ormond Street) or SAMA 82.

For more info, give Siân a ring on 27355 or 21977

ORGANIC SHEEPSKINS

By Nicki Port, Organic Sheepskins

The following article was received by email. If you would like any further information then please contact the company direct. Thanks, Siân

I run an Organic Tannery in Herefordshire, England. The process we use is unique and has taken many years to research and develop as a veg tan was never used in conjunction with lamb skins in the past. The process is commercially confidential.

The process has now been developed to a level that it's use can now be extended world wide on a scale that each unit can tan approximately 2000 per year or extended further if required. It takes two people to run a unit this size. The intention is to give as many people as possible the opportunity to run their own business without committing financial suicide and could be run in conjunction with an agricultural holding or community.

Anyone who decided to set up a unit would receive training and back up to enable the unit to produce a very high quality product. This would give Islanders the opportunity to organically tan their own skins to a professional standard with the added bonus of a totally environmentally friendly product with a process that complies with Organic standards set by the Biodynamic Agricultural Association and The Soil Association. The world wide demand is growing exponentially for organic products.

The demand for our own product has quadrupled in the last four years and the majority of work is still service tanning, the demand for which is also growing. We tan other peoples skins from all over the British Isles. This would also apply to the Falklands. The skins do not need to carry certification, it is the process that matters as all other processes have levels of chemical use.

Further information regarding costs and equipment will be available on request. See our web site www.organicsheepskins.co.uk or email nicki.port@virgin.net

Needing somewhere to stay in town this winter?

Are you looking for a break in town for three weeks in August? If so, Colin and Eileen Davies are willing to make their house available for three weeks in August in exchange for looking after the dog, cat, chickens, ducks and the peat burning rayburn.

If interested, please contact Eileen on 27133 in the daytime or 21428 in the evenings.

For Sale

Motocross Bike

Kawasaki KX250, in excellent condition and lots of spares - £2,000. For more information or viewing, ring Siân Ferguson on 21977 or email sianny@horizon.co.fk

As from the 1st July 2006, **Spring Point Farm** will be run by Mike and Donna Evans, South Harbour Farm. Any queries for Xmas lambs, replacement stock etc. should be made to them. Ron and Fiona would like to thank all their customers over the years for their support .

ROD SUTTON REDEFINES BIG DAY OUT

By Des Williams (passed on by Hew Grierson)

The Ruatahuna Maori Farm in The Bay of Plenty witnessed an extra ordinary shearing display on February 3rd when Rod Sutton shore 1103 three-month-old Romney/Perendale cross lambs in a standard nine-hour day.

Rod spent eight months prior to the day training and building up for his ordeal, using and modifying programmes he had relied on in the past for his official world records.

Jeff Dorset reveals Rod was originally thinking of something over 900, but when Aparima dairy farmer, Wayne Ingram did 946 in mid-January, Rod remained unperturbed and just decided he'd have to raise his sights a little higher.

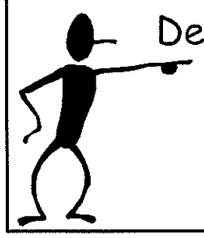
"Rod had been consistently producing 120 lambs per hour in the weeks prior and suggested that he might get up around 1080," Jeff says. "But then he did 246 before breakfast and he just kept on putting them out at that speed all day."

Dorset says the lambs were drafted from a mob of 4000, had been weaned three weeks prior, they were also crutched and prepared with a blow above the teats.

"I've seen some big days in shearing sheds over many years but I'd say there's been nothing to equal Rod's effort that day, it was just beyond all expectations. I think in the past Rod has been inclined to over-train for his records but he had a good balanced build up this time.

"There's a saying that he kept reminding himself about: 'Tough is not enough'. Rod doesn't have a lot to say for himself but you have to be more that just tough to do something of his magnitude."

As part of the Livestock Ordinance, all stock return forms **must** have been returned to Siân Ferguson at the Department of Agriculture by the **30th June**.



If you have not yet returned yours, then please do so immediately.
She will be chasing you up!!

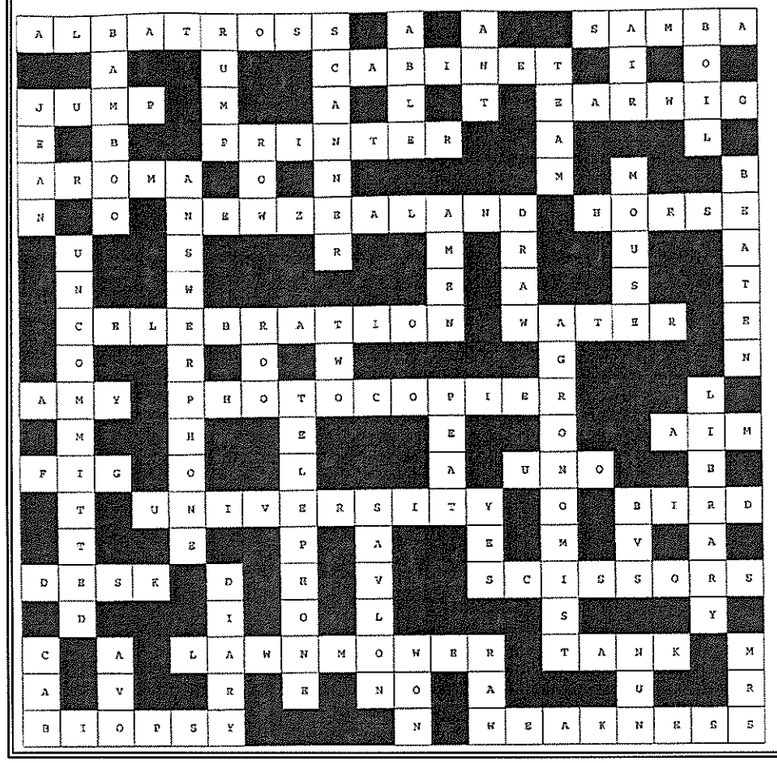
STRANGE FACES AROUND THE DOA?

Don't worry, it's only two FICS students on their work experience placement, which will be taking place between 24th July and 4th August.

Karl Chaloner will be working with Lyn and Gordon in the laboratory while Lucinda Lowe will be assisting Sarah up in the Veterinary Section.

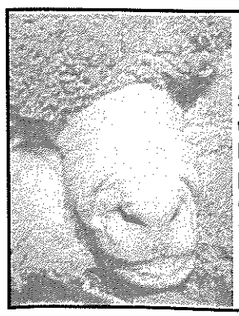
The Wool Press Editor will be chasing them up for a few lines on what they've been doing, so watch this space!!

LAST MONTH'S SOLUTIONS



TEATIME RIDDLES

1 – Gloves
2 – Corn
3 – Chair
4 – Bed
5 – When it turns into a driveway
6 – River
7 – Clock
8 – Book
9 – Potatoes
10 - Table

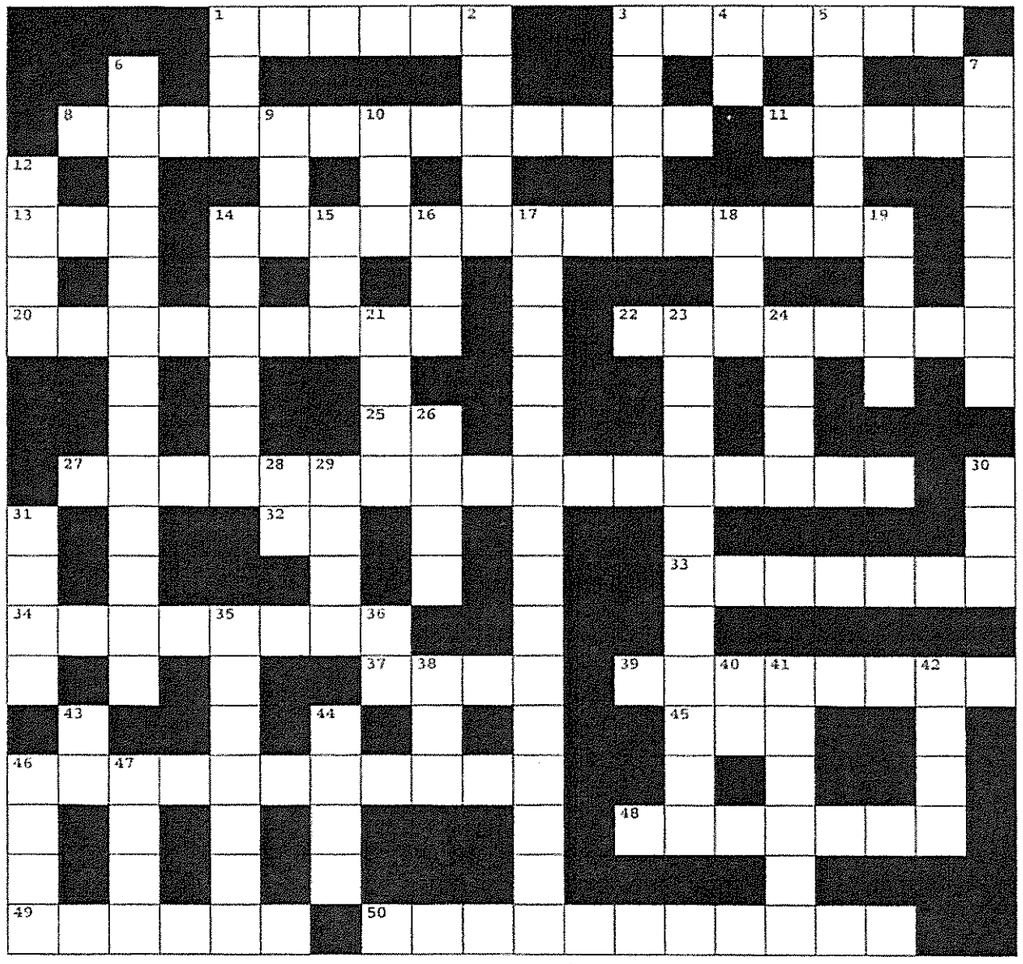


Wanted: Australia's Ugliest Sheep

Researchers have begun a search for Australia's ugliest sheep to try and identify genes that produce high quality wool. The country's merino wool industry is worth A$2.8 billion (£1.1 billion) a year, and scientists hope to produce wool to compete with synthetuc fibres. Paul Hynd, of the Univeristy of Adelaide, said: "It's the ugly sheep that will help us to advance the qualities of merino wool to make it more stretchy, less scratchy, shinier and easier to spin. *Souce: The Times*

PUZZLE PAGE

CROSSWORD



Across

1. Fantasy world found in a wardrobe
3. Cinema
8. Annual madness at Surf Bay
11. Express Approval
13. Make a legal appeal for redress of grievances
14. Organisation to improve the condition of disadvantaged people in society
20. Dare
22. Gem, usually blue
25. In the case of
27. UK metro system
32. In the hands of
33. Goodwill
34. *5 down*
37. Drug addict
39. Device for alerting the entire building
45. Disease, characterised by formation of pustules on the skin
46. Monstera oblique
48. An account of personal experiences
49. To speak evil of
50. Pub

Down

1. Of the moment
2. Chocolate egg time!!
3. Foregoing
4. Cattle deprived of manhood
5. DOA Staff member (5,8) & *34 across*
6. 14th June celebration
7. Small object used to protect a surface
9. Wedding words
10. Language group, including those spoken in southern China & Thailand
12. Forces cinema provider
14. Seasoned
15. Swindle
16. Era
17. Recently proclaimed the southern most event of its kind
18. Mischievous child
19. Gulp
21. Mentor
23. American comedy film
24. S. American country, capital Lima
26. Resentment/desire
28. Top man (military)
29. "Flaming ...",expression
30. Flirtatious
31. Reveberation
35. Act of providing accommodation
36. "...nu", hoover on kids tv
38. Mineral spring
40. Compared with
41. Moorland plateau in SW England
42. Government envelope mark
43. Expression of satisfaction
44. Portable media player
46. Tranquil
47. A British nobleman

THE WOOL PRESS

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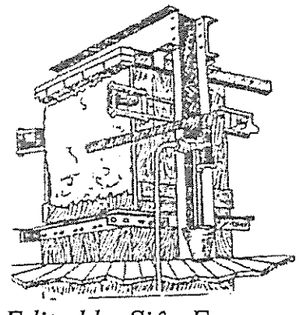
In this issue...



Edited by Siân Ferguson

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EDITORIAL

With Farmers' Week over we have been taking stock of the key issues that were raised by farmers during discussions. As happened last year, the Department of Agriculture has complied a list of short term objectives taking into account the matters raised by farmers that will direct activity and help achieve our overall objectives, including making Falklands' farming profitable. One of many subjects raised was the down side of boils (caseous lymphadenitis) in export mutton that is costing farmers and FIMCo money. Joe Hollins' excellent article on the subject is recommended to you to help reduce the incidence of this disease in stock on farms.

Of equal importance is evaluation of the yield, quality and cost of forage crops. Andrew Pollard's detailed article will be of considerable interest to farmers planning to grow hay, oats, Swedes etc this season. His article includes examples from crops grown around the Islands and we are indebted to farmers for providing data for the project.

An excellent set of posters describing managed grazing trials on farms were displayed during the department's presentations in Farmers' Week. Two of these posters are included in the Wool Press this month to allow readers to digest the information in full. I am sure you will enjoy Jimmy and Ginny and Riki and Ben's presentations this month. More to come in the next publication!

Zoe has written an amusing piece from the veterinary practise where she is working in Australia. I gather the occasional koala has to be treated as well as sheep and cattle! All good experience Zoe, and we look forward to you joining the department next year.

We welcome Peter Johnson to the department, filling the post of Sheep and Wool Advisor. Peter has been over to the West and out on East Falkland farms already and you will see more of him in the coming months. Lastly, a big thank you to Doug Martin for all his work over the last four and a half years. We wish him well for the future.

Best regards,

Phyl Rendell
Director of Minerals & Agriculture

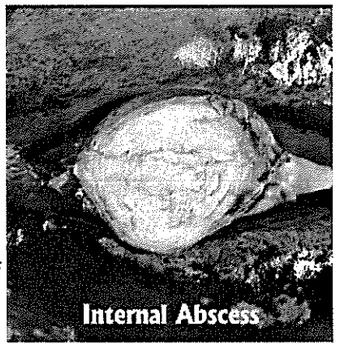
Don't forget we encourage as much input from readers as possible so get writing and email your articles to sferguson@doa.gov.fk or post them to Siân Ferguson, Department of Agriculture!!

BOILS, BOILS, BOILS!

By Joe Hollins

Boils, Cheesy Gland, or CLA (caseous lymphadenitis): you've heard it all before and already you've almost stopped reading this article. But wait! I have new things to say - or at least some old ones in a new way - which will impress upon you that it is a major issue, that it does impact on the rural economy, but that all is far from lost. It is a serious national flock problem that needs tackling head on. Bear with me though - it will be necessary to cover some well trodden ground.

First - 'know your enemy'. Without knowledge a bug is a bug is a bug. With a little background though, knowing the bug's strengths and weaknesses allows you a two pronged strategy: attack its strengths and exploit its weaknesses. Then your farm becomes inhospitable to its life cycle.


Internal Abscess

So why are 'boils' so wretchedly persistent? Because the bacteria concerned, *Corynebacterium pseudotuberculosis* (which means 'fake TB') is specially designed. It is wrapped in fat. Imagine that you mould a sphere of lard with your fingers, fill it with water, and cleverly seal it off. Then you leave it in your shearing shed in a chilly shady corner. When you come back in a few months and cut it open with a knife, I can guarantee that it will still be full of water. Most bacteria don't have this sort of protection. They dry and shrivel up in days. Now imagine a freshly shorn sheep with a ruptured boil in the shearing shed. It has rubbed along the wooden rails of the race, the counting out pens and maybe a chute, leaving thick fatty smears of 'boils' bacteria. They lie in wait ready for the next sheep with its shearing nicks to rub along in exactly the same place. It may be then, or may be during another procedure in the shed a few months later. It is literally a process of inoculation, but with the real disease, not a vaccine. The research figures say it all: the bacteria can survive in the shearing shed for up to 5 months, and on bedding for 2 months. The good news is, it really is easy to kill. Detergents, by definition, dissolve fats, and there goes its protection. When cleaning the shed, think in terms of 'degreasing' and 'disinfecting'.

Another important point to get across: the bacteria does not just happen to exist on your farm. It's not, in this respect, like Clostridia for example. You buy in 'boils' with stock. It can occur in other mammalian species, even, very rarely, man, but essentially it is dependent on direct or indirect sheep-to-sheep transmission. In addition all young stock is uninfected (although lambs can be infected as young as 6 weeks – beware infection at marking/docking). A major figure: 80% of infection occurs at the 2nd and 3rd shearings. Both these factors are weaknesses which we can exploit to our benefit.

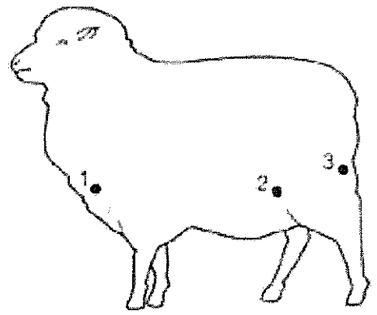
Grasp these concepts, and what follows will make much more sense. You'll realise that even though you can't see your enemy, you are devastating its army, and with, to stretch the analogy, comes defeat.

To start, how important is it? There are two levels of cost: on the farm and at the abattoir. This years figures from FIMCo: 33,000 kills of which 10% had 'boils'. It's a big sample therefore statistically accurate, albeit with a slight age bias. As a point of interest it is known that under extensive grazing conditions 'boils' can hit a maximum of 30% flock infection (50% with intensive), and some farms here are rising through the mid-20s. Infected carcasses require trimming, an enormous demand on time, a waste of meat, and a cost to the abattoir which may, in the future, be passed back to the farmer. But it's worse than that. It is a major hindrance to the export market, and it is only the vigilance of the meat inspectors and the jointing of meat that saves the day. An early boil, say in the shoulder cut, can be easily missed. It really isn't something you want to find in your Sunday roast - with or without mint sauce - and it only takes one vociferous consumer shouting in an influential ear to kill a market.

The cost on the farm is worse. The majority of infected sheep just have 'boils' in the superficial glands, especially at the shoulder, groin and behind the knee. This relates to 'nick' sites at shearing. These animals are feverish until the infection is holed up in the characteristic boil, causing a once only clean wool loss of 4-7% (and a break in the wool). The cost calculation, using 5% and rounded figures, is:

3.5kg wool @ 68% yield = 2.4kg clean wool. 5% loss = approx. 0.1kg. Loss @ £2/clean kg = 20p loss.

This is once only, so over 7 shearings a 20p loss = approx. 3p loss per infected sheep per annum. Worst case scenario flock infection rate = 30%. Total cost therefore approx 1p per sheep p.a. Not much it seems.



But there's a lot more bubbling beneath the surface. Up to 50% of infected sheep have internal 'boils', especially in the lungs. Coughing up bacteria in the counting out pens is believed to be another means of transmission. 'Boils' can even be found in rams' testicles. Sheep with internal abscessation are chronically ill. Result: emaciation, ill thrift, higher mortality, poor fleece, reduced fertility, lower lambing %, and lower lamb survival. If you have rates of infection running on farm at 20% - or even 10% for that matter - it is going to be having a major hidden impact, and it will cooperate with all the other factors here in the Falklands to reduce farm productivity and profitability. Imagine the ewe that does manage to conceive: late term pregnant, minimal grazing, calorie and mineral deficient, and internal 'boils'. If the lamb doesn't die in the uterus, then it might later through lack of milk - that is if the ewe doesn't die first.

So with the abattoir, export markets, a 10% national infection rate, and unquantifiable hidden on-farm costs, 'boils' are a major problem in the Falklands. Yet, believe it or not, we could drop that % to low single figures very easily.

There are 2 approaches: (1) Vaccination (2) Farm management. Vaccination is probably a non-starter from the point of view of sheer cost, except possibly for the worst affected farms. Even then there are a number of factors that make it second best to management measures. Vaccines such as Glanvac-3 or -6, reduce the cost by combining the 'boils' vaccine with the clostridial vaccines, however not only do lambs need 2 injections 4-6 weeks apart, but also annual boosters must be kept up, or no effect will be had. Even with regular boosters it takes at least 4 years to see a fall-off in infection. The cost benefit of vaccination depends on the following factors:

1. The prevalence of infection in the flock.
2. The lamb/adult ratio (because the problem increases with average age of flock).
3. The cost of vaccine.
4. The value of wool.
5. The value of meat.
6. The on-farm incidence of clostridial disease.

Unless you are already vaccinating for Clostridia, the cost is likely to outweigh the benefits - especially when so much can be accomplished through simple management. Farm management alone can effect a massive drop in infection rates. There are two aspects: (a) Hygiene (b) Flock management. The hygiene aspect has been laboured before, and you all have the advisory posters. There are three points of attack: (i) The shearers (ii) The shed (iii) The wounds.

If there is one point I want to get across, it is that a 'boils'-infected comb and cutter is repeatedly injecting 'boils' into your stock. Be firm with the shearers: they are not doing you a favour being there and you are paying them good money. But make it easy for them to comply. Have disinfectant solutions and cleaning cloths, perhaps handy sprays, readily and easily available; ask them to routinely clean their gear at smoko and dinner; impress on them that without doing so it is they who are injecting a disease that will persist in the animal until it dies.

Next, the shearing shed. The number one site for infection in the shearing shed is the counting out pens. This can't be overemphasised. The sheep are not only shorn (closer contact + exposed skin), but nicked and cut, and pressed together. Infected sheep, whether discharging from a sliced boil or coughing from lung 'boils', are infecting the cuts and smearing bacteria on the wood. It is the perfect situation, entirely man-made, to ensure spread of the bacteria. Plenty of research has shown that the sooner they are turned out, the lower the rate of cross infection. So proper and thorough cleaning and scrubbing of the shed is vital.

In addition, infection will always be via those nicks and cuts. If at least the worst ones are sprayed - for example with an iodine solution - it will give those sheep up-front protection even if the organism does get into the wound. Make it a job for one of the handlers. Remember - the bacteria is

easy to kill, but it won't kill itself. You have to do it.

Carrying on from this, there are two aspects to flock management that will now make immediate good sense. (i) Shear the young stock first. The shed and gear are at their cleanest. This one measure makes an enormous difference. It's worth repeating that 80% of infection occurs at the 2nd and 3rd shearing. (ii) If the counting out pens are so bad, why hold them at all? Minimise holding, or best of all, turn them straight out from the shears. And if an individual goes through with a discharging boil, see it out and spray along those wooden contact areas.

These measures, I promise you, work to bring 'boils' under control. But it needs persistence, patience and thoroughness. There is no effective treatment for the infected sheep, so 'boils' has to die down with the natural turnover of animals. It may take 3 or 4 years, but then continue these practices and the rate of infection should run at a low, barely significant %. The loophole is the farmer who doesn't bother, because you are all buying and selling stock between each other. Unless this becomes good island-wide farming practice, those that do bother will find that they keep on buying in infected stock from those that don't. That's not a criticism - just a fact of life.

WINTER NUTRITION IN THE FALKLAND ISLANDS

By Andrew Pollard

The following article was part of the DOA sessions held at the 2006 Farmers Week. I would like to once again thank those who willingly provided the "real" information that was contained in that presentation. There are many factors that affect animal performance. Improving the winter nutrition of stock is a key factor if we wish to lift lambing percentages and reduce stock death rates.

What options are available to improve stock winter nutrition?

1. Forage Brassicas (Grazed) 2. Conserved feeds (Hay and silage)
2. Managed Grazing 4. Imported supplements

It is the task of an individual farm to determine which of these options is most applicable to their farming plan. It often comes down to a fine balance between cost, risk and availability. A farm of course may choose not to follow any of the above suggestions.

Conserved Feeds (Hay and Silage)

Hay production is nothing new to farmers in the FI. In actual fact farmers (with good memories) will probably tell us that historically more hay was grown in the past than at the present. There are two major differences between hay and silage. Hay is baled dry (85% dry matter) and subsequently can be stored as it is. Silage is baled at a higher moisture level (15 to 60% dry matter) and is then wrapped. The silage then goes through a fermentation process as it cannot get access to oxygen.

What are the key factors in evaluating a hay or silage crop?

1. Yield 2. Quality 3. Costs

1. Yield

Out of the above factors, there is no doubting yield is the factor that farmers have a better understanding of. There are visual assessments of the crop and calculating the quantities of bales harvested. Does this tell us everything we need to know? Not quite, we also need to know the dry matter %, weight of the bales and the area that was cut, from this we can determine the **tonnes of dry matter per hectare.**

Yields of forage from several farms in the FI - (*) Assumptions

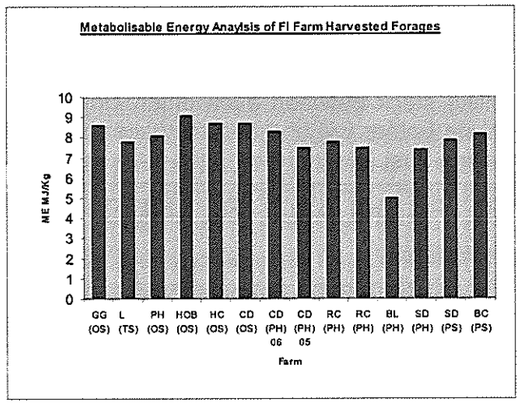
Farm	Crop	Year	Area Cut (HA)	No Bales	Weight Bale (KG)	Dry Matter %	T DM/Ha
Cape Dolphin	Oats & Pasja	2005/06	2.5	73	500 (*)	16	2.34
Cape Dolphin	Pasture	2005/06	8	1336	25	85 (*)	3.55
Cape Dolphin	Pasture	2004/05	8	3078	25	85 (*)	8.17
Bold Cove	Pasture	2005/06	4	460	60	52	3.59
Hope Cottage	Oats	2005/06	7.8	112	500 (*)	29	2.08
Leicester	Triticale	2005/06	2	235	45	40	2.12
Head of the Bay	Oats	2005/06	1.5	38	500 (*)	29 (*)	3.67

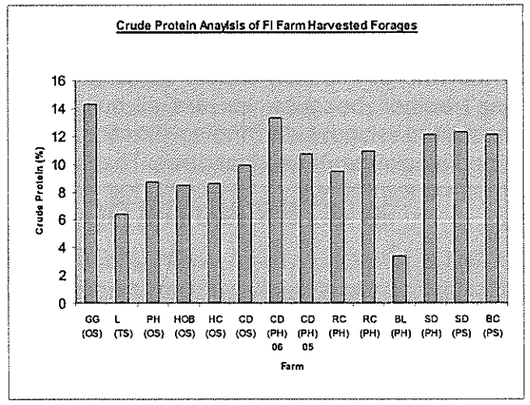
There is a considerable difference in the crop yields. Head of the Bay yielded nearly twice as much as the crop at Hope Cottage and Leicester. Notice the big difference between 2004/05 and 2005/06 on

the Cape Dolphin hayfield. The dry spring/early summer has no doubt had an effect on this, there could also be a difference in the composition. More legume than Yorkshire fog in 2005/06 was a clear observation.

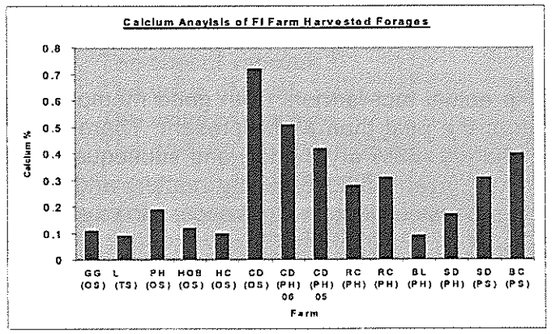
2. Quality

Quality of forage is determined by many factors. The two main indicators of quality are Energy (used by the animal for mechanical work, for synthesis and providing heat) and Protein (in the form of crude protein is essential for growth and repair).





The charts above show the variability amongst the different forage samples. The worst sample was from hay cut at Brenton Loch, which was considerably worse than whitegrass. A surprise in terms of crude protein was with the oats at Goose Green. It is possible that this difference was due to the oats being cut at a "leafier stage" when compared to the rest of the crops that were more stem than leaf. All of the Metabolisable energy levels are low.



The chart to the left shows the variability of calcium in the conserved forage. It is of particular note that Cape Dolphin had the 3 highest levels (out of 3 samples). What this signifies is the importance of "diversity" of diet. These feeds are to be used as a supplement in the diet not a substitute. Access to native vegetation is key; in particular some of the shrubs like Mountain Berry for example.

3. Costs

Total costings include: establishment costs, harvesting costs and feeding costs. The following costs are approximate and need some fine tuning! The pastures do not take into account establishment costs.

Farm Forage Costings (ME = Metabolisable Energy)

Farm	Crop	Year	Cost £/Ha	Cost £/ tonne dry matter	Crude Protein (%)	Cost £/ Kg CP	ME (MJ/ kg)	ME (pence/ MJ)
Cape Dolphin	Oats & Pasja	2005/06	403	171	9.9	1.73	8.7	46
Cape Dolphin	Pasture	2005/06	243	68	13.3	0.51	8.3	29
Cape Dolphin	Pasture	2004/05	224	27	10.7	0.25	7.5	30
Hope Cottage	Oats	2005/06	157	75	8.6	0.87	8.7	18
Leicester	Triticale	2005/06	796	375	6.4	5.86	7.8	102
Head of the Bay	Oats	2005/06	239	65	8.5	0.76	9.1	26

Summary (costed farms only)

- Cape Dolphin's 2004/05 grass/legume hay crop had the highest pasture yield per Ha
- Head of the Bay's Oat silage had the highest annual forage yield per Ha
- Cape Dolphin's 2005/06 grass/legume hay crop had the highest % Crude Protein
- Cape Dolphins Oat & Pasja crop had the highest annual forage crop % Crude Protein
- Head of the Bay had the highest metabolisable energy levels per kg of dry matter
- Hope Cottage had the cheapest costs in regards to £/Ha
- Cape Dolphin's 2004/05 silage had the cheapest pasture costs in regards to£/tonne dry matter
- Head of the Bay's silage had the cheapest annual forage crop in regards to £/tonne dry matter
- Cape Dolphin's 2004/05 grass legume hay crop had the lowest cost/ kg crude protein
- Hope Cottage had the lowest cost/MJ of metabolisable energy

In nearly all of these crops there is an excellent result whether it be yield, quality or costs. None of the above excel in all 3 categories. This then poses the following question: **Can I/we do anything to make conserved forage more cost effective? Forage Brassicas (Swede/Kale/Maincrop Turnips)**

1. Yield

It is a general assumption when farmers are budgeting forage plans to estimate production at 5 tonne of dry matter per hectare. Extremes are failures (zero to low yields) up to excellent crops that can reach as high as 16 tonnes of dry matter per hectare.

2. Quality

Quality in regards to brassicas does not deviate as much as the conserved feeds. In the following examples we will base assumptions on:

Protein levels 10.8% Energy levels 12.8 MJ/kg Dry matter

3. Costings

Swede crops grown over the past 2 seasons indicate that we can work on three main costings. These costings are £100/ha, £150/ha and finally £200/ha (some crops do exceed this value). Variations in costings are a result of individual contractor costing rates and their machinery work rates, choice of site, choice of cultivation and sowing operations, choice of fertiliser and rates and the previous years cropping.

Cost Analysis

Costs £/Ha	Yield (t DM/Ha)	Costs £/t DM	Crude Protein %	Costs £/Kg CP	ME (MJ/kg DM)	Costs ME (p/MJ)
100	5	20	10.8	0.19	12.8	8
150	5	30	10.8	0.28	12.8	12
200	5	40	10.8	0.37	12.8	16

These costings are based on an average yield of 5 tonnes dry matter per hectare. More care in forage crop establishment and grazing management could easily halve these costs.

These costs do not take into account the utilisation of forage by either feeding or grazing. Strip grazing of brassicas provides a much higher utilisation than opening the whole area up to stock. In regards to hay and silage it is important to increase utilisation by feeding out to optimum numbers (opening one large round bale to 3 cows or 30 sheep will lead to spoilage).

Imported Feed

There are many different types of imported supplement feeds that could be obtained for use in the FI. It is also true that there are many different options in regards to where we purchase them from. The following costings are based on 2 supplements, Soya Bean meal from Brazil and Cosetan from Chile.

Soya Bean Meal 44% Protein (estimate) £230/tonne 52p / kg Crude Protein

Cosetan nuts 18% Protein (estimate) £418/tonne 232p / kg Crude Protein

At 52p / kg Crude Protein this is an opportunity worth considering as it comes at no risk in terms of crop establishment.

Summary of the Most Cost Effective Crops against Imported Feed

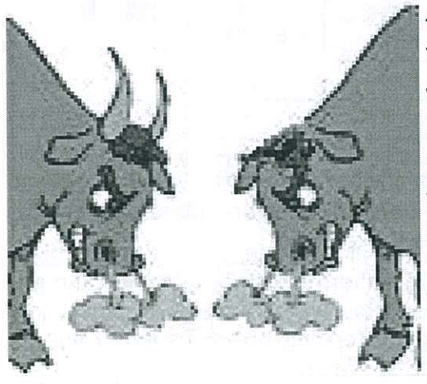
	Feed	Management	p / kg CP	p/MJ ME
Head of the Bay	Oats	Silage	0.76	26
Hope Cottage	Oats	Silage	0.87	18
Cape Dolphin (05)	Pasture	Hay	0.25	30
Cape Dolphin (06)	Pasture	Hay	0.51	29
5t DM @100/Ha	Swede	Grazed	0.19	8
5t DM @£150/ha	Swede	Grazed	0.28	12
5t DM @£200 Ha	Swede	Grazed	0.37	16
Imported Feed	Soya Bean Meal	Supplement	0.52	
Imported Feed	Cosetan	Supplement	232	

There are several options available to improve winter/early spring nutrition of stock for farmers in the FI. It is clear that there is an ability to produce forage at a lower cost than imported feeds. Without knowing in detail the yield, quality and cost of the forage the true value of the crop cannot be determined. It is essential that those farmers who plan to grow forage crops cost benefit back to this benchmark of imported feed. To conduct cost benefit studies of this nature it is essential that field information is recorded. Anybody who is not sure of what they need to record please get in touch before the next growing season, before it becomes too late!

Please get in touch with any questions or information that can assist in these cropping decisions. I would be keen over the next month to cost and carry out yield estimates on swede crops across the Islands.

TRANSPORTATION OF HORNED CATTLE

By Joe Hollins



This is a reminder to farmers regarding the transportation of horned and hornless (polled or poll) cattle. The current Falklands Codes of Practice for animal welfare simply states that 'horned cattle should not be penned with dehorned cattle'. This obviously also applies to transportation, which is simply another form of penning. The Code is based on current UK legislation (Welfare of Animals in Transport Order 1997), which will be superceded by a raft of new EU legislation in January 2007, but this anyway clearly states 'animals with horns shall be transported separately from animals without horns'.

Ultimately it's common sense – cattle are aware of where the tips are and how to use them, and hornless cattle can do nothing to defend themselves. Although we require that all dehorning be done with a local anaesthetic, this does not apply to 'tipping' of horns, so if one beast has a particularly sharp array it may be safer for all, man and beast, to remove the business end (cutter or embryotome wire).

MANAGED GRAZING TRIALS - POSTERS

Bold Cove - *Jimmy and Ginny Forster*

Site Details:

- Two areas - 27 & 25 ha
- Established 2001 & 2002
- 27ha = Bogged White Grass, 25ha = White Grass, Diddle Dee & Greens
- Up to 40 breeding cows & calves on each.
- 4 & 5 wire perimeter fence sub divided into 7 strips with tread-ins and one poliwire
- Cocksfoot, Creeping Red Fescue, Red & White Clover, Rock Phosphate

Aims of the Site:

- To establish a re-seed capable of allowing us to diversify into a beef enterprise
- Better nutrition to keep breeding females in suitable body condition after calving in order to get them in calf yearly
- Better nutrition to ensure high calf weaning weights

Management:

- Doug Martins support & input with the sub-division fences
- Cattle moved weekly, could be longer depending on growth, and strip immediately harrowed to reduce waste age and recycle nutrients
- Only one application of fertiliser in 2005

Observations:

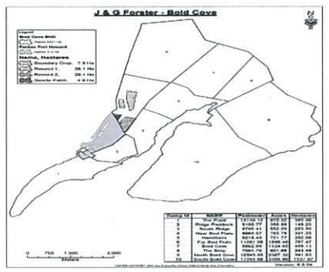
- Cocksfoot quite sparse, a heavier sowing rate would have been better
- Clover first to respond at beginning of season, has spread to almost total cover on both areas and is spreading through Whitegrass

Setbacks:

- Hard to believe I know but, none that I can recall!

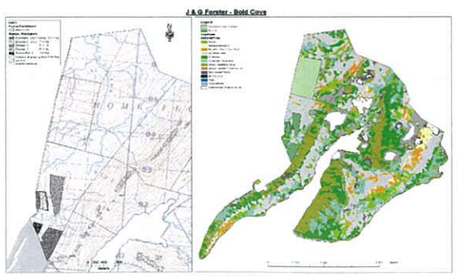
Outcomes:

- The outcome is that we now have what we set out to achieve: over 50 ha of improved pasture; cows getting pregnant each year & weaning weights comparable to similar aged calves in other countries—Chile/Australia/UK for example
- One strip of approx 4ha used to produce 13 tonne silage (dry matter) this season and strip grazed for two weeks afterwards



Lessons Learnt and Essentials of Grazing Site:

- Vital to resist putting animals on too early in the season before growth well under way
- Absolutely necessary to move animals to allow re-growth
- Better to move animals before grass is too short otherwise re-growth takes that much longer and suffers from the drying effects of sun/wind
- Better to have areas of natural pasture within any re-seeded areas and ensure water reliability



Future:

- To properly manage and maintain what we have (and hope the beef industry takes off!)

DISPLAYED DURING FARMERS WEEK

Elephant Beach - *Riki Evans and Ben Berntsen*

Trial Details:

- Size of site: 2650ha
- Date established: 18th December 2004
- Type of camp: Very peaty soil, formerly wether ground
- Number of sheep: 1035 to 1324 ewes and lambs, currently 1035
- Fencing: Two wire electric fencing. C posts, strainers and wire costs approx. £440/km including labour. Top wire is 52cm high, second wire is 20cm high

Aims of the Trial:

- To increase sheep production
- To increase economic returns using "Managed Grazing" techniques
- To encourage growth of emerging fine grasses whilst simultaneously maintaining the ecological balance within the White Grass camps
- To successfully change formerly harsh wether ground into sustainable and productive breeding ground

Management:

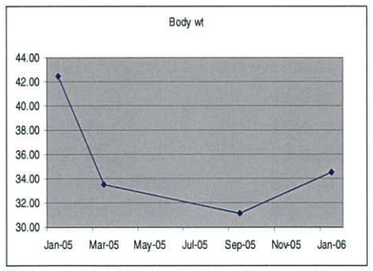
- Sheep moved every 5 to 7 days depending on size of camp, amount of feed available, rainfall and rate of grass growth
- Grass growth, plant species, wool weights, sheep weights and
- total production monitored on site

	Current	Start of Trial
Actual sheep no.s	1035	1300
DSE sheep no.s	1863	2340
Area (ha)	2650	2650
Stocking rate DSE/ha	1.42	1.13
Sheep/ha	0.39	0.49

Table 1: Showing start of trial and current stocking rates

Observations:

- Initially, approximately 10% of the sheep went through the fence
- Rectified by lowering the top wire and some sheep "training"
- Numerous sheep saved from being cast or in ditches due to frequent monitoring
- Both ewes and lambs quickly became tame and much easier to handle
- Fine Hair Grass appearing in rested paddocks
- When the sheep graze the Cinnamon Grass down, it is time to move them



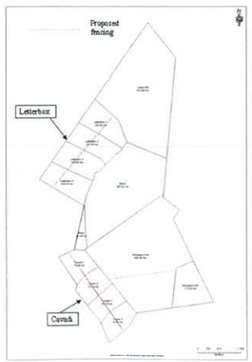
Ewe weights during the trial

Setbacks:

- A combination of poor weather in November 2005, a slow start to Spring, poor monitoring, very old cull ewes and grazing a paddock for too long resulted in approximately 200 ewe deaths
- 2005 lambing % for those ewes was only 30%

Outcomes:

- To increase sustainable production from White Grass camp in the most economical manner and maximise percentage of productive fine grasses



Lessons Learnt and Essentials of Managed Grazing:

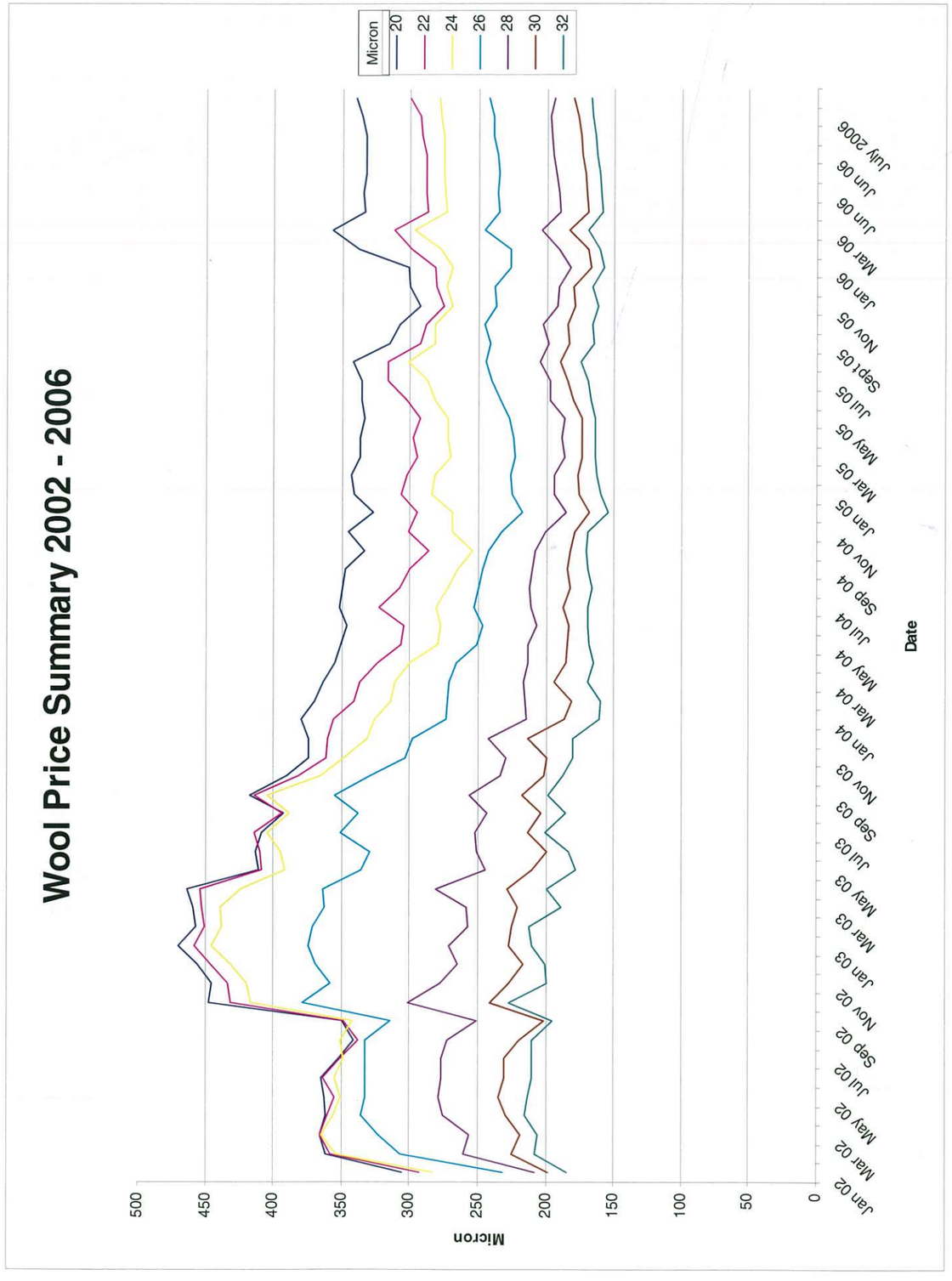
- We have re-assessed the stocking rate and will rotate the sheep through the larger camps over Winter
- **Regular monitoring of sheep in this system is essential**
- **Training of sheep new to the system essential, hefting out of corners etc**

Future:

- Ultimately, we still have enough faith in the system to adopt a similar managed grazing strategy right across the farm.

WOOL PRICE TREND OVER TIME

Based on weekly DOA Wool Reports



BREEDING SUCKLING CLOVER SUITABLE FOR THE FALKLANDS

By Tex Alazia & Bob Reid

Former Director of Agriculture, Bob Reid has been successful in breeding a suckling clover suitable for the Falklands; one which most of us are familiar with, the small yellow flowered clover that spreads around most of the settlements (Trifolium dubium). In his 1939 report on Falkland's pastures, W.W. Davies said it would be a great addition to improved pasture if only someone could find a line that produced harvestable seed - which Bob Reid says we now have.

He has also been working on a hybrid between cereal Rye and a perennial secale grass which could be viewed as a three year oat crop. Bob will be getting samples and more details about the plant in time for spring planting, but would be interested in hearing from any farmers/genuine enthusiasts that would be interested in following the seed up.

Tex Alazia from Port Edgar said that he trialled some legumes sent by Bob this last summer. They planted two rows in the garden which grew taller than carrots and started to spread out and so had to be dug up and some were transplanted into a reseed. For further information, please contact Bob Reid on email bobreid42@hotmail.com

FARM MAPPING

By Phyl Rendell

Deborah Davies has take over responsibility for farm mapping from Alex Blake who is going to the USA for a year to study for a degree in geographical information systems (GIS). Deborah is based in the Mineral Resources Department. Please contact her on email ddavies@mineralrsources.gov.fk or on telephone 27322 if you want to add GPS data to your farm map or to have maps printed for your farm plans. If you would like some assistance with GPS work or need to borrow a GPS unit, call in and see Deborah. More from Deborah in the next Wool Press.

SHEEP BREEDS - POSTERS DISPL

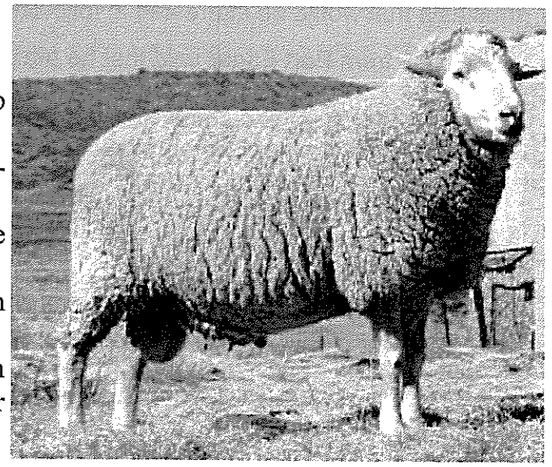
AFRINO

History

- The South African Department of Agriculture was asked by the wool industry to develop a white woolled breed, following a list of criteria, for extensive grazing areas
- The breed consists of 25% Merino, 25% Ronderib Afrikaner and 50% SA Mutton Merino

Adaptability

- Able to produce and reproduce in adverse and sub-optimum conditions



Production

- A dual purpose sheep (80:20 meat to wool)
- Ewes have excellent mothering instincts
- Produce Merino type wool in the range of 19 to 22 micron
- The meat is of a high quality with an even fat distribution
- Lambs do not accumulate fat at an early stage so can be marketed later with a higher body weight

CORMO

History

- The Cormo sheep was developed in the sixties in Tasmania
- A cross of Super-Fine Saxon Merino ewes with Corriedale rams
- Rams chosen for breeding are selected by fertility, body weight, clean fleece weight and fibre diameter

Adaptability

- Cormos thrive in a wide variety of climates
- They perform well on grass, require little or no supplementation which makes them an excellent choice for a small farm flock and hardy enough for a range flock

Production

- Ewes are good mothers and have a strong flocking instinct
- Fibre diameter is usually in the range 20 to 22 micron
- Fleeces can yield over 70% and are bright white in colour
- The wool is highly sought after by spinners, knitters, weavers and felters
- The wool is exceptionally consistent throughout the fleece
- Has a fine, even, and well defined crimp which makes for very elastic fibres and yarns
- Average fleece weight is often in excess of 5kg

AYED DURING FARMERS WEEK

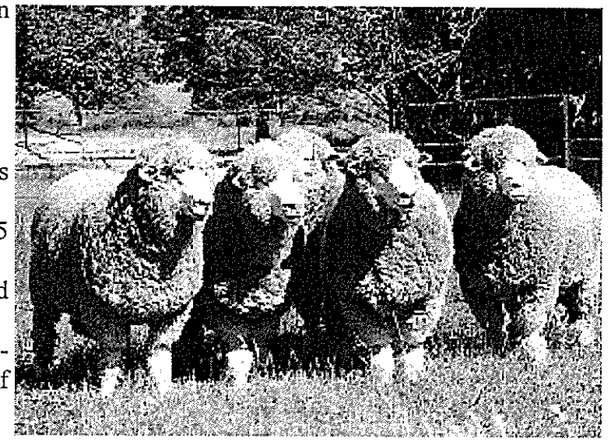
CORRIEDALE

History

- Simultaneously developed in Australia and New Zealand in about 1874
- Selected Lincoln rams were crossed with selected Merino ewes
- The breed was developed to meet a demand for dual purpose animals with good meat characteristics and commercial wool production
- With over 125 years of line breeding behind it, the Corriedale is sufficiently fixed that hybrid vigour results when it is crossed with any other recognised pure breed
- The modern Corriedale is a large framed, plain bodied, polled sheep, capable of producing heavy carcasses of lamb, hogget and mutton

Adaptability

- Docile, easy care animals
- Adapt to a wide range of climatic conditions, sometimes at very high altitudes
- They are known as 'good doers' in poor seasons



Production

- Lambing can exceed 100%
- Corriedales have a long life span
- Produce heavy cutting, bright fleeces with good style, length and handle
- Mean fibre diameter ranges from 25 to 30 microns in adult sheep
- Wool cut has the potential to exceed 7kg or more per year
- Yield varies according to the environment but is often in excess of 70%

Farmers Week - over for another year!!

The Department of Agriculture would like to pass on a HUGE thank you to everyone who helped make our sessions a success. Special appreciation must go out to all farmers who participated in the Poster Presentation Sessions, both the sheep breeds and managed grazing trials.

Sorry that we can't name everyone who helped, otherwise there wouldn't be any room left in the *WP*, so thank you to anyone and everyone who helped out in any way - you know who you are!!

So a **huge** thank you from all the DOA staff to all involved!!

- As you may have noticed, we have featured a lot of Farmers Week information in the Wool Press this month and in the upcoming editions, we'll be bringing you all the poster presentations featured.

- But don't worry if you missed them or any of our PowerPoint presentations (or if you were present but a little hungover from the Glue Pot or Government House!!) as we can now offer you everything on CD!!

Just give Siân a ring on 27355 or email sferguson@doa.gov.fk to let her know what computer programmes you have and they'll be posted out to you for your enjoyment!!

VET IN AUS (DUCKS AND DUST)

By Zoë Luxton

After gallivanting up the east coast of Australia for 2 months with Claire, a tent and a bottle of cheap red plonk, the prospect of beginning full time work for a couple of months seemed like a bit of an anti-climax (but necessary for experience and monetary reasons!). Anyway, here I am ensconced in Clarence Town which is about 2 hours north of Sydney. Deep in the New South Wales countryside (or should I say bush?). The practice is a bit like work at home, a bit of something different every day with routine bitch speys etc thrown in for good measure.

Rather keen to make a good impression I was determined to remember everything I could about veterinary medicine and use it well on my first day. First job of the day "I've got this duck here" says Peter (new boss) "it's got this wing deformity and needs the ends of both wings trimmed off". Well, last time I was doing anything to a duck it was rolling it in a pancake in a Chinese restaurant. I gamely got cracking with the help of nurse Bianca. Some time later Peter found us both covered in blood, feathers and sweat and slightly light headed as the duck's head refused to stay in the mask of the anaesthetic machine, thus some leakage. Both wings were trimmed however even if one was wrapped in a dodgy looking bandage. Luckily for me the duck woke up and was sent off home with its newly shortened wings that were now pointing in the right direction.

"Right, next job better be one I can do efficiently and well" I thought. In comes a dog with one of its nails pointing at a strange angle "broken toe" barked (excuse the pun) the owner. "I'll be back in an hour to collect her, we're going on holiday". After fiddling about with the toe for a few minutes I deduced the toe wasn't broken and the nail didn't seem to be broken at the root either, in fact it felt pretty solid. "I think this dog's just pulled its nail a few days ago and he's just noticed today" I muttered. "Are you sure it's not dislocated?" Filtered Peters' voice from the other room. More fiddling. "Don't think so but come and look". In he wanders, flicks the nail with his finger and with a loud click it popped back into its rightful position. ZL open mouthed with disbelief and frantically trying to remember Smith Ryder Davies' phone number so he could ring them for confirmation I wasn't a complete berk all the time and did actually do some decent vet work occasionally. "First day nerves and bad luck" sympathised the nurses while I wondered what the world record for the shortest timed locum position was and if I was close to breaking it.

Next, a collapsed dog. "Reckon I can cope with this" I thought, "seen plenty of collapsed dogs". "I pulled a tick off her yesterday" reported the owner, "so guess its tick paralysis". Tick what? Luckily Jasmin (Peters partner and soon to be mother of their second child thus the need for yours truly coming to locum) had given me a run down of "Aussie diseases" so I was aware of the new things I might come across. The insects in Australia are far more ferocious than insects in Suffolk and a certain type of tick saliva can cause paralysis in dogs and cats and they need hospitalising and tick anti-serum. So I muddled my way through that. I did happen to notice a couple of bottles of snake anti-venom next to the tick anti-serum and while I was staring at those with a feeling of doom and dread Jasmin appeared behind me and said "of course if they get bitten by a redback spider there isn't much we can do but nurse and hope". Cue me picturing myself packing my bags for the second time that day (am not a fan of poisonous creatures).

I am pleased to report however, that I have managed to carry out most of my following duties with a vague level of competence and haven't been invited to leave. Infact we have settled into a nice routine of the pommie vet turning up, making the punters laugh with some well turned English phrase (farmer staring at me as I pronounced his cow 'jolly sick') then causing further hilarity as I rush off at the end of the day to catch Neighbours and Home and Away. Real Australians pooh pooh their excellent television soaps and settle down to watch The Bill which is dullsville quite frankly compared to what's going on in Ramsey Street.

Next Dog Dosing Day (Droncit)...
...Wednesday 16th August

RAINFALL UPDATE

By Siân Ferguson

I've finally managed to collect everyone's rainfall totals by the 2nd of the month, so have included *all* the figures for July!! Thank you to everyone who collects data for the DOA, this is very much appreciated and I look forward to pestering you all again next month!!

June Weather Stats from the Met Office

Temperatures for June were slightly above the long term average, with the highest for the month reaching 9.1°C on Friday 2nd and dipping to -3.2 on Thursday 22nd. There were fourteen days when snow or sleet fell in June and there was six days of hail.

There was slightly less sunshine than average, totalling 59.8 hours with the sunniest day on Friday 2nd seeing 6.3 hours. Seven days passed with no sunshine. The monthly wind speed was slightly less than the average of 13.4 knots and the highest hourly mean speed of 37 knots and highest gust of 53 knots both occurred on Friday 30th. There were only ten days with gusts over 33 knots, which is 13 less than average.

July Weather Stats from the Met Office

It was a cold month with temperatures only reaching 6.8°C on Saturday 1st and the lowest recorded was -3.2°C, overall a slighly cooler than average month.

We saw 12 days of snow and sleet, 5 days of hail. There was no thunder and three days of fog, all generally average for July

Sunshine hours were slightly less than average, totalling 63.1. The highest daily total was 5.8 hours on Sunday 23rd and there were nine days with no sunshine.

Wind speeds were slighlty below average at 13.1 knots, with the highest gust of the month reaching 45 knots on Friday 14th. There were 14 days with gusts over 33 knots, which is less than average for the month.

Rainfall Totals 2005/2006

Location		2005					2006						
		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Stanley	2005	35.5	19.3	28	45.5	87	56.5	42	39.5	76	30	41	68
	Average	*45.5*	*41*	*39.5*	*46*	*68*	*74*	*57*	*59*	*58*	*58*	*50*	*46.5*
MPA	2005	49.1	14	32.3	40.1	67.3	89.2	32.3	45.2	61.9	47.4	72.8	58.8
	Average	*36.4*	*33.5*	*34.6*	*36.6*	*57.9*	*63.1*	*46.5*	*56.8*	*54.1*	*49.5*	*58.1*	*45.7*
Bleaker Island		30.5	10	17.5	23	36	135	52	37	43	26	66	42
Cape Dolphin		-	-	-	-	19	52.5	24.5	22	50.5	39	51	45.5
Darwin		-	-	-	-	40	63	20.5	25.3	20.5	25	48.5	34
Elephant Beach		50.5	14	19.5	43.5	68	64	37.5	37.5	59	34	64	52
Fern Ridge		-	-	-	-	-	-	-	35	57	58.5	63	45.5
Head of Bay		46	13	21.5	35	71	77	38	40	68	18	62	58
Moss Side		-	-	-	-	62	53	29	36	57	46	58	54
Paragon		-	-	-	-	-	-	-	-	42	43	18	14
Pebble Island		-	-	14.5	16.5	44.8	66	26	22	60	45	43	42.5
Port Howard		49.8	14	24.5	47	52.5	131	48.75	48.5	71.5	82.5	80.5	71
Saladero		-	-	15	22	41	56	26	37	26	45	-	-
Shallow Harbour		36	17	15	18	35	-	19.6	33.3	51	47.5	48	53
South Harbour		-	-	-	-	-	30	10	28	30	40	45	53
Swan Inlet		32	3	11.5	41.5	47	66.5	24	45.5	49.5	43	72	54
Wineglass Station		44	14.5	17.5	63.5	58	87	32.5	36.5	66	62	63	61.5

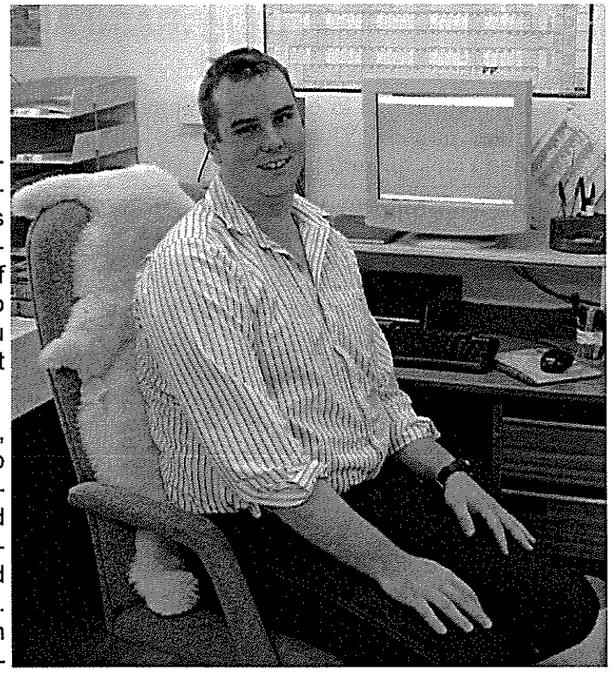
Important Training News

The Training Centre would like to remind the private sector (i.e. companies and individual members of the public) that training grants to assist with the cost of training courses are available. These can range from 50% to 90% of the actual costs, depending on the nature of the training.

For information on how to apply for grants, please contact the Training and Development Manager, Eileen Davies, on 27133. In the case of private companies, evidence must be produced to show that the company is investing at least 3% of its profits on staff training in order to qualify for a grant.

NEW SHEEP AND WOOL ADVISOR

By Peter Johnson



I have been appointed as the new Advisory Officer (Sheep & Wool Husbandry) with the Department of Agriculture. Damien O'Sullivan was the last person in the job until he recently vacated the position. I started work on the 17th of July, unfortunately, just after Farmer's week, so I missed the opportunity to meet many of you face to face and to hear the discussions that took place during that week.

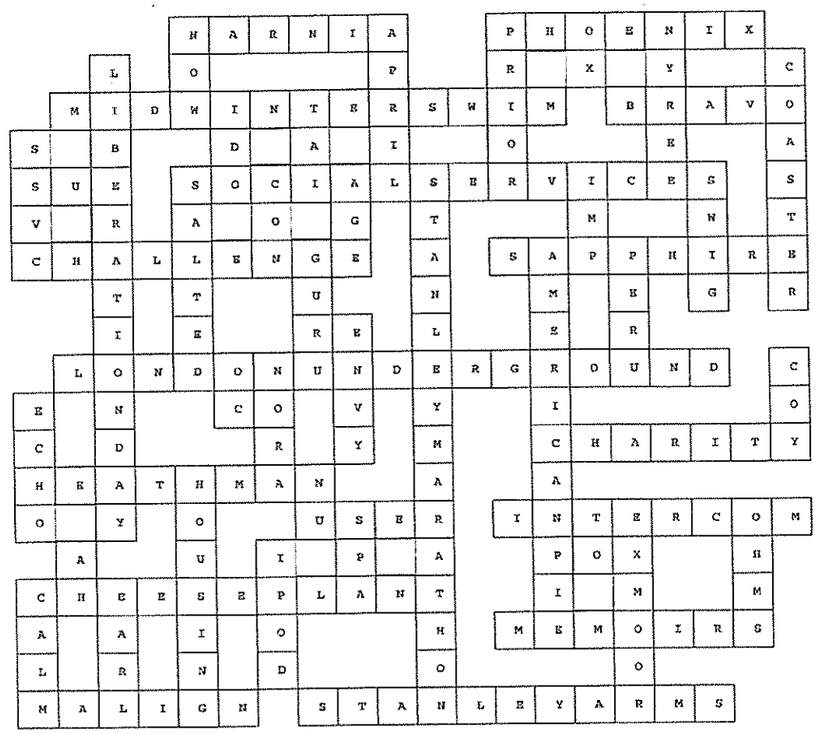
I have come to the Falklands from Australia, where I was employed in a similar role (Sheep & Wool Officer) with the New South Wales Department of Primary Industries. I have worked with this Department in the Sheep branch, including sheep genetics, business skills and grazing management over the last few years. My work has focused on breeding and selection including selection index calculation and breeding value estimations.

In my first few weeks in the Falklands, this area of genetics seems to be where most of my time will be spent. There has been a great deal of interest in genetics sparked by the recent Breeding and Selection workshops, and guest speakers at Farmer's week. I have already had a number of discussions about group breeding set ups and am also on track to undertake some work into grazing management, silage and look at protein supplementation during winter.

My wife Julie has joined me here in the Falklands, and we are expecting our first baby in late September. We have come from Orange in NSW, a relatively cold part of Australia with snow in winter, which has been good training for here! look forward to working with all of you and please feel free to contact me at the Department of Agriculture or drop in to the office if you are in Stanley.

Email: pjohnson@doa.gov.fk **Telephone: 27355**

LAST MONTH'S CROSSWORD SOLUTION



Is Aquaculture for you ?

I would just like to say a few words concerning diversification plans for farmers to include the water that surrounds them. I don't want to turn you all into fish or shellfish farmers but please do read the following…

…The mussel farm at Goose Green covers a sea surface area of **400 square metres** from which I produced **30,000 Kgs** of live saleable mussels in **3 years**. How much livestock could you produce from 400 square metres of Falkland`s farmland in 3 years ?

The sea has huge potential energy and some of you out there may want to use it. If you are interested in either catching mullet, farming mussels, lugworms or using the fresh or sea water that surrounds your farm please get in touch with Brendan Gara at FIDC on 27211 or myself at Falklands Fresh on 21001.

Simon Hardcastle, Falklands Fresh Ltd

PUZZLE PAGE

WORDSEARCH - test your local knowledge!!

How many Islands in the Falklands can you locate?

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

The Mind Boggles!!

Concerning her Age!!

When I asked her how old she was, she smiled and said cryptically:

"The day before yesterday I was 22, but next year I'll be 25."

What is her birthday and when was the date of our conversation?

In Hot Water!!

A man must make a statement. If what he says is true, he will be hanged. If what he says is false, he will be shot.

What should he say?

Choices!!

A logician with some time to kill in a small town decided to get a haircut. The town had only two barbers, each with his own shop. The logician glanced into one shop and saw that it was extremely untidy. The barber needed a shave, his clothes were unkempt, his hair was badly cut. The other shop was extremely neat. The barber was freshly shaved and spotlessly dressed, his hair neatly trimmed.

Why did the logician return to the first shop for his haircut?

Murder Mystery!!

A man was found murdered one Sunday morning. His wife immediately called the police.

The police questioned the wife and staff and was given these alibis:

The Wife said she was in bed reading a book.
The Cook claimed she cooking breakfast.
The Gardener claimed he was planting seeds.
The Maid claimed she was getting the mail.
The Butler claimed he polishing the silver.

The police instantly arrested the murdered. Who did it and how did they know?

Wordsearch hint - 49 islands in total used

THE WOOL PRESS

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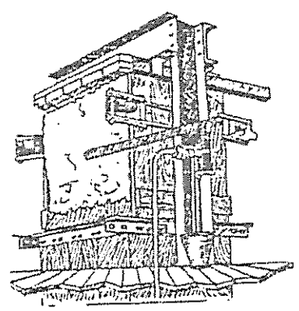
In this issue...



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EDITORIAL

It has been said many times before, but it is scary just how quickly time seems to be passing. It will only be a couple of weeks until farmers start shearing again and also until another lambing gets into full swing. Surely it wasn't really that long ago that the last season finished?

This edition of the Wool Press is full of informative and thought provoking articles. For example, Peter's proposal about wether trials; are you keen to evaluate your sheep? Are you interested in hosting one of the trials? Joe has another article full of farmer friendly tips – this time about ram health and ram scrotal examinations, please do not hesitate to contact Joe or any of the DOA team if you have any queries on this very important subject.

Readers are urged to carefully consider the content of articles from Sarah Bowles. Besides knowing something about what occupies Sarah's time most days, information on identification of animals destined for slaughter is important for all farms. In addition an update from Phyl on the Grass Fires Ordinance is very timely.

It is hoped that the message from Vic about the damage that horned cattle can inflict upon other animals (injury and bruising) during transport to the abattoir is appreciated by readers. This is concern to farmers, FIMCo and also to the Department. Consult the vets for assistance if required. Thanks to Siân for her update, mainly on the weather and also to Damien O'Sullivan for his article from Australia.

The contribution from FIMCo is both appreciated and commended for your attention. While John tells a story about beef quality that everyone may not want to hear, it is important to appreciate that the message contained is the same as that clearly stated at several beef industry meetings over the last 18 months or so; people want local beef as long as the price is right and provided that quality is consistently good.

All the best for another month and indeed summer,

Neil Judd
Senior Agricultural Advisor

Remember - *if you missed any of the Department of Agriculture PowerPoint or Poster Presentations during Farmers Week or would like to recap, we can send you out a cd with everything on!! Get in touch with Siân for more details.*

WHOSE WETHER IS BETTER?

By Peter Johnson

Wether trials are used the world over to provide a comparison between sheep, run in a commercial environment. They allow people to compare body weights, fleece weights and fleece characteristics. In recent years, carcass characteristics have also been measured at the end of the trial. Faecal egg counts are now also used as worm control increases in economic importance in other parts of the world. Usually a team of animals are entered, and the results for that bloodline are worked out on a team average.

Results from a wether trial can be used (in conjunction with other information) when making decisions about what sort of rams to buy and where to buy them from. Ranges in fleece value between animals can be as large as £3.28 per fleece (from Sean Miller, 2002). Armed with the information about how a certain bloodline or breed performs in the particular climatic situation, and the figures of what that performance means economically, farmers are better able to make ram selection decisions.

A wether trial was conducted in the Falkland Islands from 1998 to 2001. The data that came from this trial was useful, but since that time, new genetic introductions to the Falklands have given rise to the need for another comparison trial. This new evaluation will also incorporate a carcass value, and will have an even-up shearing at the start of the trial, to overcome problems identified in the trial 8 years ago relating to uneven wool length to begin with.

The DoA is hoping to start at least two wether comparison trials in 2007. This will give an opportunity to people with sheep of both new and current breeds to see how they stack up against each other. The information gathered from this evaluation will be able to be used by farmers all over the Falklands when making decisions about what sheep will perform best for them and the market they are trying to target.

The comparisons are envisaged to run on both East and West Falkland, with teams of 15 wethers. The recently weaned wether lambs will be shorn upon arrival at the comparison site, and again 12 months later. After this shearing, the wethers will be sent to the abattoir to allow carcass traits to be measured and analysed along with wool traits to give a true commercial value for that line of wethers. Information such as survival rates of different teams will also be collected.

Specific information is available on how the trial will operate, and farms interested in either hosting the comparison or entering a team should contact me at the Department of Agriculture. Once the trial is up and running, I would encourage people to attend shearing and weighing days to see how the trial is progressing and discuss any results to date.

THE RAM EXAM

By Joe Hollins

A good lambing % is fundamental to national flock improvement. Without it, where is the surplus for the selection of the best replacement breeding stock, and for sending lambs to the abattoir without eating into future wool and meat production? Poor lambing percentages such as we had last year are dependent on a multitude of factors that would need a book to cover, but put simplistically, primary factors are genetics, nutrition and climate, and secondary factors are parasite and disease status. Genetics aside, nutritional status is probably number one - a healthy individual is more fertile and more resistant to the other factors.

Farm management tries to manipulate all of these to obtain the best possible lambing %. It's not easy of course - a bad winter is still a bad winter and poor soils will always undermine your efforts. Here's one though that can add a percent or two, and is relatively easy to do. It may also, in its most basic form, become a requirement. It's the ram examination.

The Veterinary Service is hoping to make the recent batch of blood testing for sheep brucellosis the last, and will then make it mandatory to check rams' testicles at least annually as a way of monitoring for disease. Suspicious cases will need to be reported to the Veterinary Service so that blood tests can be taken. Although this will literally be a question of running them through a race and doing a quick palpation at pretty much any time of year, it gives me an excuse to cover the whole important issue of the full ram examination prior to tupping. It is rather too late for this season, but pin this article on the board in the shearing shed and it'll be there waiting for you!

Much can be told about fertility from a simple systematic physical examination and it needn't take up too much time. It would be natural to assume that any problems can be easily overcome just by increasing the ram:ewe ratio - the traditional remedy - but I have bad news: poor fertility is hereditary. Those poorly fertile rams are literally propagating the problem.

BRUCELLA OVIS:

First, the important issue of brucellosis in sheep, which was eradicated in the Falklands after an impressive campaign between 1977/78 and 1992/93, when all 7,000 rams in the islands finally tested negative. Since then the DoA has tested approximately 10% of rams per annum, and they have remained clear. What then, if we are to stop testing, do you look for?

Ovine brucellosis is primarily a problem of rams, not ewes, transmission occurring through multiple service of briefly infected ewes, and occasionally directly between young rams. The infection causes orchitis (inflammation of the testicles) and epididymitis (inflammation of the 'telephone-receiver' shaped tubules wrapped around the length of the testicle), causing both swelling and shrinkage of the testicles, adhesions to the scrotal skin (the skin won't slide over the testicles), and large lumpy cysts on the epididymi, especially on the 'tail'. These are all things to palpate for, but don't be alarmed when you discover some of these symptoms. There are many other causes other than brucella – including 'boils' – but the Veterinary Service just need to follow it through.

THE SYSTEMATIC RAM EXAM:

Why bother?!
The minimum requirement will be just to palpate the testicles, but to do a complete thorough job I'm going to take you through the full ram examination. The first most important question is - why bother when all that's required is a few more rams to do the job?! Because rams with poor fertility reduce lambing %. Logically, you would think that poor fertility means the ram has little or no effect, and that a ewe either conceives or she doesn't and sooner or later some fertile ram will sniff her out. But libido and fertility are two different things. It takes very little testosterone for good libido, so a poorly fertile ram can be very active indeed, and by being so, can cause a lot of damage to the lambing %. There are several reasons:

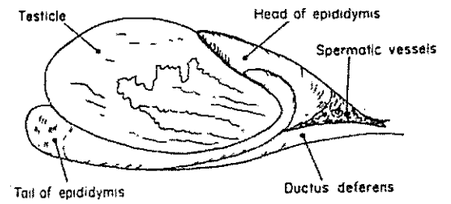
- Poor fertility does not necessarily mean no conception. Research shows that rams with poor fertility cause weak conceptions, knocking the ewe out of cycle. The good rams pass her over. This has important genetic implications - see below.
- Weak conceptions result in more in utero death ie: early resorption of the embryo or an abortion. Result - a barren ewe.
- Weak conceptions that go full term result in weak lambs and more neonatal deaths.
- The weak lambs that do survive are genetically prone to poor fertility, both as future breeding ewes and as rams. The problem is passed on to the next generation.

Suddenly those poorly fertile rams have more significance. Throwing more rams at the problem is not the solution - selection is, and it can enhance your lambing % by improving both ewe and ram fertility in future generations.

Check list:
When examining rams for fertility, it is best done 4-6 weeks prior to joining. Partly this is because for the full examination rams need to be sexually active, and this is controlled, as in the ewe, by day length. It also gives you time to adjust your numbers. The full examination in the perfect world should go as follows:

1. Eyes: tendency to wool blindness, and lid pigmentation vs. UV induced cancers.
2. Feet: check for deformity (hereditary) and infection (serve poorly).
3. Legs: look for bowing (hereditary and short working life) and stiffness (arthritis - serve poorly).
4. Teeth: is there a bad bite (hereditary - poor weight gain in offspring)?
5. Condition score: should be 3.5 to 4. Poor score affects ability to work and fertility.
6. Sex organs: (a) The penis. Is it deviated, scarred or is there any evidence of damage? Do not try to extrude manually, although gentle pressure and manipulation just above the scrotum may cause the ram to self extrude, and if so, check that the whip-like vermiform appendix is intact on the tip. This spreads the semen over the ewe's cervix and is vital for fertility. (b) The scrotum and testicles...

Scrotal examination:



The most important part of the ram exam.

(i) Entire? Two testicles?!
(ii) Same size?
(iii) Palpate firmly for lumps within the testicles (eg: 'boils').
(iv) Check for firmness (in the breeding season).
How firm? About the same as the ball of your thumb with a firmly clenched fist.
(v) Does the scrotal skin move freely over the testicles or are there adhesions?
(vi) Is there scrotal skin disease? Even a mild inflammation raises the temperature and reduces the sperm count enormously.
(vii) Check the head and tail of the epididymi for lumps or cysts (see diagram).
(viii) Size: the length of each testicle should be approximately twice its width. A spherical testicle is wrong. Most important of all, in the breeding season the total scrotal circumference at its broadest point should be at least 30cm. Size does matter! There is a direct correlation between fertility and size of testicles, so this is considered an important part of the ram exam. A good ram should be able to produce 200 ejaculates in a month of serving, a massive output of sperm. Measuring the scrotum sounds a fiddly thing to do, but make it easy - have for example a piece of marked-off string hanging from your belt loop which you can quickly whip around the scrotal circumference.

It seems a long list but you will soon get used to assessing most of these all at once.

In the best of worlds - with stud rams, for example - a full ram exam would include semen evalua-

tion for morphology (shape), motility (live:dead) and density, but even in UK studs routine semen evaluation is not considered justified unless the ram is suspect. The examination above, paying good attention to testicular size, covers a host of evils.

The bare bones:

Check the rams a few weeks before tupping.
Cull any with obvious problems.
Notify the Veterinary Service of any that could match the symptoms for brucellosis.
Poorly fertile rams reduce lambing %.
Poorly fertile rams reduce overall flock fertility.

Check out: www.pipevet.com/articles/breeding_soundness_exam_rams.htm
www.moredun.org.uk/feature-article.asp?ref=109
www.agric.nsw.gov.au/reader/sheep-management/fertility-test-rams

THE GRASS FIRES ORDINANCE 2002

The Grass Fires Ordinance 2002 requires land owners to have a licence to burn land from **16 September** through to **30 March**. Applications in writing stating what area and type of grass is to be burnt, when the burn is expected to take place and who will supervise the burn etc should be forwarded to the Department of Agriculture for the attention of Glynis King. She can be contacted on email gking@doa.gov.fk or fax 27321 at the Mineral Resources office. Permits can be restricted to five days in very dry conditions depending on advice from the Chief Fire Officer; however landowners can apply for extensions by telephone.

Please note that landowners burning grassland **before 16 September when no permit is required** still need, under the terms of the Ordinance, to notify the Chief Police Officer and the owners and occupiers of land within two miles of the place of the fire of the intention to burn.

For further information and guidelines for burning reseeds please contact Andrew Pollard at the Department of Agriculture, Glynis or Phyl.

Phyl Rendell
Director of Minerals & Agriculture

BRANDING FLUID

- BEING USED AS AN ALTERNATIVE TO MOVEMENT TAGS

By Sarah Bowles

Farmers should be made aware that animals destined for slaughter at the Sand Bay abattoir are now able to move from farm to abattoir after being clearly marked with branding fluid, and without the use of Movement Tags.

Each individual farm has been allocated a unique brand. Sheep may now be clearly marked using the brand prior to leaving the property, **when destined for the abattoir**.

Animals moving between farms must still be identified using the pink Movement Tags.

The Veterinary Service **will not** be responsible for supplying branding fluid; farmers must source their own supply, which must be approved by the DoA.

Should any farmer have not received their individual metal brand, please contact Sarah at the Veterinary Service on 27366 or email sbowles@doa.gov.fk and arrange collection before the next export season.

Note: I will be on leave for two weeks, from 9th September, returning to work 26th September. Collection of brands can be made after that.
Thanks, Sarah.

OLD BEN

By John Hobman, Saladero

Is that dog a Kelpie a man once said to me?
I said no he's a mongrel he'd rather have a fight than a feed
He's as rough as guts and as hard as nails
But he's a stayer to the end
If I had my pick of any dog I think I'll stick with Ben.

DROUGHT FEEDING

By Damien O'Sullivan

In the Falklands while rain is variable it does seem more reliable than in Australia. At the moment much of Eastern Australia is in the driest 6 month period on record. Large cities such as Brisbane in Queensland are talking about piping water from Northern Australia, a distance of 1270 kms. Other water supply options being mooted for this city of 1.7 million people are to recycle waste water and use irrigation water from farms up to 80kms away, paying farmers not to farm! Cities here are now offering residents a subsidy for the purchase of water tanks. This makes the water situation in the Falklands look very good despite there being dry times as well.

While drought feeding or any hand feeding of sheep and or cattle has not been an option used on regular occasions in the Falklands it is interesting to look at what options there are elsewhere. Currently we are feeding about 40 head of cattle and as can be seen below the options of what to feed have been quite varied.

Product	£/tonne	Protein %	Energy MJ ME per Kg	Amount to Feed in gms	Cost (pence)	Energy MJME	Description
Copra Meal	164	21	10.8	4114	67.5	44.4	Coconut husk & meal
Cottonseed Meal	148	43	9.8	2009	29.8	19.7	Cottonseed that has been hammer-milled
Whole cottonseed	119	21	13.1	4114	48.8	53.9	Cottonseed
Pasture Plus	108	18	9.5	4800	52	45.6	A mix of urea, molasses protein and minerals
M8U	105	22.7	9.8	3806	40	37.3	Molasses mixed with 8% urea
BP Roller Mix	57	8.5	2.7	10165	58.3	27.4	Molasses mixed with urea in water
M3U10CSM	87	14.9	10.4	5799	50.4	60.3	Molasses 3% urea 10% cottonseed
Linseed	131	31	12.4	2787	36.5	34.6	Remains of Linseed after crushing for oil
Peanut husk	40	17.2	13.7	5023	20.1	68.8	Outer red skin from a peanut
Kewpie Dry Lick	160	29.8	7.77	2899	46.5	22.5	Mix of urea minerals and protein meal
Macadamia meal	87	21		4114	36	0	Crushed nuts
Peanut meal	127	41	9.41	2107	26.9	19.8	Crushed peanuts

Generally with feeding stock there are two main things to consider; energy and protein. To determine the most economic feed source we have to consider the protein levels of the feed as most often it is the limiting factor in the diets of our sheep or cattle. If we have dry roughage like whitegrass that is low in protein we need to look for a feed source that has the best protein value per tonne of feed purchased. Once we have established this we can then determine which feed is the best option for us. Depending on the feed type, there are then the issues of feeding method. Feeding molasses based supplements requires tanks, transport and feeders, as does grain. Most of the meals are easy to feed if they are bagged but troughing is required and some animals will over-eat at the expense of others. Probably of all the feeds listed here cottonseed is the easiest to feed in that it can be bought in bulk, tipped out on the ground and with an electric fence around the cottonseed it can be easily fed.

So with all this choice of feedstuffs a decision can be difficult. In our case of feeding cattle we have opted for a liquid molasses mix with urea for protein and for extra energy and protein a linseed meal fed at the rate of 800 grams/head/day. This is not the cheapest option but currently is the most manageable way of feeding.

Some points to consider when doing any supplementary/production no matter where you live are:

Have a goal in mind e.g.

- Is it to fatten animals for the abattoir?
- Maintain ewes in good condition for lambing?
- Do I need just a protein supplement or energy also?
- Feed cost needs to be calculated on the basis of protein and or energy /tonne
- Logistics of handling the feed - do I need troughs or specialised equipment to feed transport or store.
- How long will I need to feed for to attain my goals?
- Is it economic?

Feeding molasses supplement

My contact email is Damien.O'Sullivan@dpi.qld.gov.au or dnosullivan@bigpond.com

Know your contacts!!

Name: Sarah Bowles
Job: Veterinary Services Officer, Department of Agriculture

What does your job involve? I am the first point of contact when people book appointments or bring their animals into the clinic, so spend much of the time working with the general public which I enjoy. I take care of all the drug orders which can be frustrating at times as it's difficult to know in advance what drugs you might use up over the next couple of months and try to make sure that the sea order turns up before things run out. Work in the office takes up a large chunk of time; general office work such as entering pet details onto the computer, and drawing up a variety of certificates keep me busy. And of course there's the main aspect of my job which is assisting the vets in surgery, and providing care to any in-patients which we may have. If I had to give advice to any aspiring veterinary assistants it would be all bad; so that it puts them off! I enjoy my job, and would rather keep it myself!

What are the highlights? This would be any sort of animal recovery really. There's something very satisfying about seeing an animal, especially if it's been through a tough operation etc, building its strength up and returning to normal. We have a dog in at the moment, which had a large, sharp bone lodged over it's heart. Joe had to open her chest to reach the offending article, and I had to perform intermittent positive pressure ventilation (large words that didn't mean a thing to me until 5 minutes before I had to carry them out!). Basically I had to breathe for the dog via the anaesthetic machine, inflating and deflating her lungs during the operation. The fact that she's, so far, running around and looking fantastic is definitely a highlight of my work.

Most embarrassing moment? This would have to be when Joe Hollins prescribed antidepressants for my cat.....

Tel: 27366 Fax: 27352 sbowles@doa.gov.fk

MANAGED GRAZING TRIALS - POSTERS

Horseshoe Bay Managed Grazing Trial

Peter and Maggie Goss

Trial Details:

- Size of site: 282.39ha
- Date established: 24th May 2005
- Type of camp: Bog white grass, lax white grass, cinnamon grass, diddle-dee plus greens
- Number of sheep: Initially 293, increased to 304
- Fencing: Three strand electric

Aims of the Trial:

- To improve the already existing good ground and encourage growth of natural fine grasses
- To sustain/improve the body weights of ewes plus increase stock numbers for maximum economic gain
- To further decrease death rates in young stock

Management:

- Rotated through system following set pattern
- Moved through visual assessment of pasture quantity and quality and taking into consideration rainfall or lack of it

Rotation is as follows:	
29/03/2006	293 Maiden Ewes enter the site, Maggie's - 42.98ha
22/04/2006	Moved into 3J's - 53.29ha
15/05/2006	Moved into Clint's - 35.24ha
17/05/2006	11 Rams put in with ewes
24/05/2006	Moved into Martin's - 27.81ha
04/06/2006	Moved into Cora's - 52.17ha
18/06/2006	Moved into Bob's - 47.34ha
28/06/2006	Moved into Petersfield for 10 days - 23.56ha

Table 1: Showing a couple of months rotation and stocking rates

Observations:

- Two wire fence not robust enough to restrain cattle from entering the system
- Natural fine grasses coming through
- Stock much quieter and easy to handle
- Previous to being fenced for the trial, this area has never had a rest, it was a permanent ewe camp. 723 hoggets, 20 Dohne hoggets and 19 Polwarth shearlings were taken out on 23rd March 2006. It shows how capable of being heavily stocked this ground is

Setbacks:

- Not as such, though having a mob of wethers through some of the paddocks would help to knock down the remaining white grass bogs

Outcomes:

- Ewes on an even weight plane or increasing
- System could easily handle more stock
- Weight gain in ewes is not affecting the micron

	Start of Trial	Current
Actual Sheep No's	293	304
DSE Sheep No's	439.5	461.5
Area (ha)	282.39	282.39
Stocking rate DSE/ha	1.56	1.63
Sheep/ha	1.03	1.07

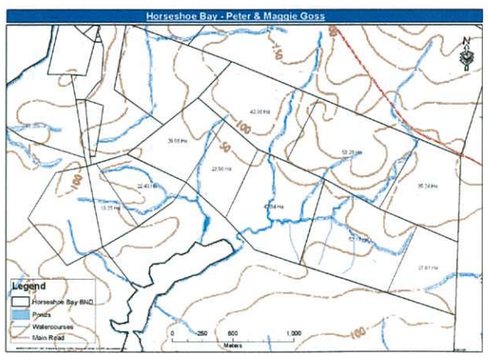
Table 2: Showing start of trial and current stocking rates

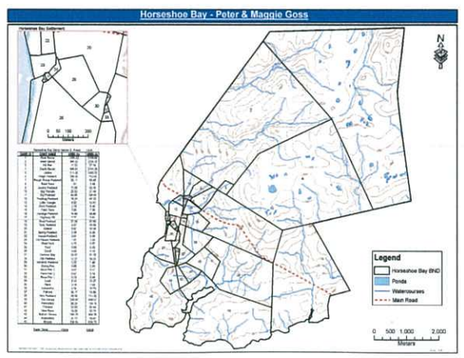
Lessons Learnt and Essentials of Managed Grazing:

- Visual monitoring of the site and the stock vital
- Installing gates in every corner of every paddock for: ease of use; one person can move stock; use of paddock options and if adverse weather hits suddenly the sys tem can be opened up in a hurry

Future:

- To increase stocking rates
- Adopt system for other areas on the farm
- To increase ewe numbers, lamb and hogget survivability by utilising the system fully to increase overall farm ewe stocking rate and therefore profitability





DISPLAYED DURING FARMERS WEEK

Kingsford Valley Grazing Site

Terence and Sheila McPhee

Trial Details:

- Size of site: Two areas: 1 x 25ha planted with oats and turnips in 2001 then planted with lotus and red fescue Jan 2003, rock phosphate and calcified seaweed applied. 1 x 33ha established in 2001, burnt, planted with cocksfoot, red fescue, clover, rock phosphate and calcified seaweed applied
- Number of sheep: 350 ewes to 900 hoggets
- Fencing: 5 wire perimeter fence divided into seven with 3 wire fences with solar energiser

Aims of the Trial:

- To establish a re-seed to increase sheep production and reduce hogget mortality with improved nutrition

Management:

- 350 selected ewes moved weekly depending on grass growth
- One larger unit used for lambing to reduce mis-mothering
- Ewes pre-lamb shorn to lamb in November and moved through the sites in November, December up to mid-January
- Site rested until mid-March then 900+ wigged hoggets go through the system before being strip grazed on Swedes for their winter feed

Observations:

- Lotus slower to get established but is now amazing and has spread to other paddocks plus is growing in the white grass

Setbacks:

- In the first year of feeding hoggets on oats and turnips they had a problem with calcium deficiency

Outcomes:

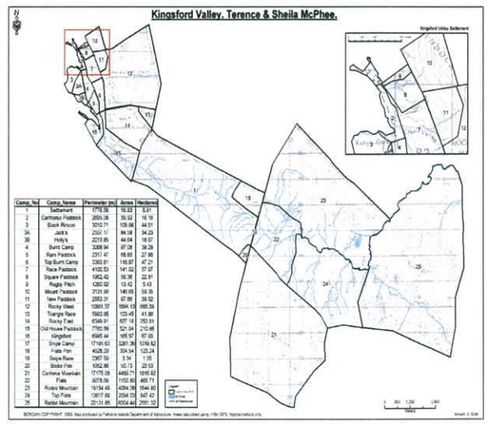
- We now have 58ha of improved pasture
- Improved lambing percentages
- Lower hogget mortality
- Sheep much easier to handle

Lessons Learnt and Essentials of Managed Grazing:

- Good ground preparation and a good burn essential combined with the application of calcified seaweed and rock phosphate
- Move animals regularly to encourage grass re-growth
- Choose sites close to home for east management

Future:

- To continue to maintain and manage the site
- To direct drill lotus into white grass areas
- Continue to sub-divide further camps for rotational grazing



HORNED CATTLE TO THE ABATTOIR

By Vic Epstein

40 years ago as a student I was told of the cost of horns to the beef cattle industry due to muscle bruising. Back in those days cattle in the northern areas of Australia were ranched and it wasn't sport unless you fought with big beasts with big horns. With the development of the export trade in live cattle and the reduced price received if they were not polled the horns were amputated - by the hundreds of thousands.

Cattle going to the abattoir have to be mustered, yarded, trucked and kept in the lairage until processed. At all of these stages the cattle are in close contact and at each of these stages the beast with horns causes havoc to those without and even to others with! How would you like to eat the rump steaks of the animals photographed?

There is a meat loss issue and a welfare issue. I fully support any initiative of FIMCo to charge for cost of bruising to the producer. Farmers should remove the horns of all cattle at marking or at absolute MINIMUM tip the horns before transport. It is your industry – look after it.

GIS MANAGER

by Deborah Davies

When friends and family were told we were coming to the Falkland Islands they were interested and curious. 'We' is husband, Chris (Technical Engineer with Falkland Islands PWD), me, Deborah, and our 6 year old son, Alex. We come from Hobart, Tasmania, "the cooler part of Australia". I thought the major difference would be a lack of eucalyptus trees, but even those are here!

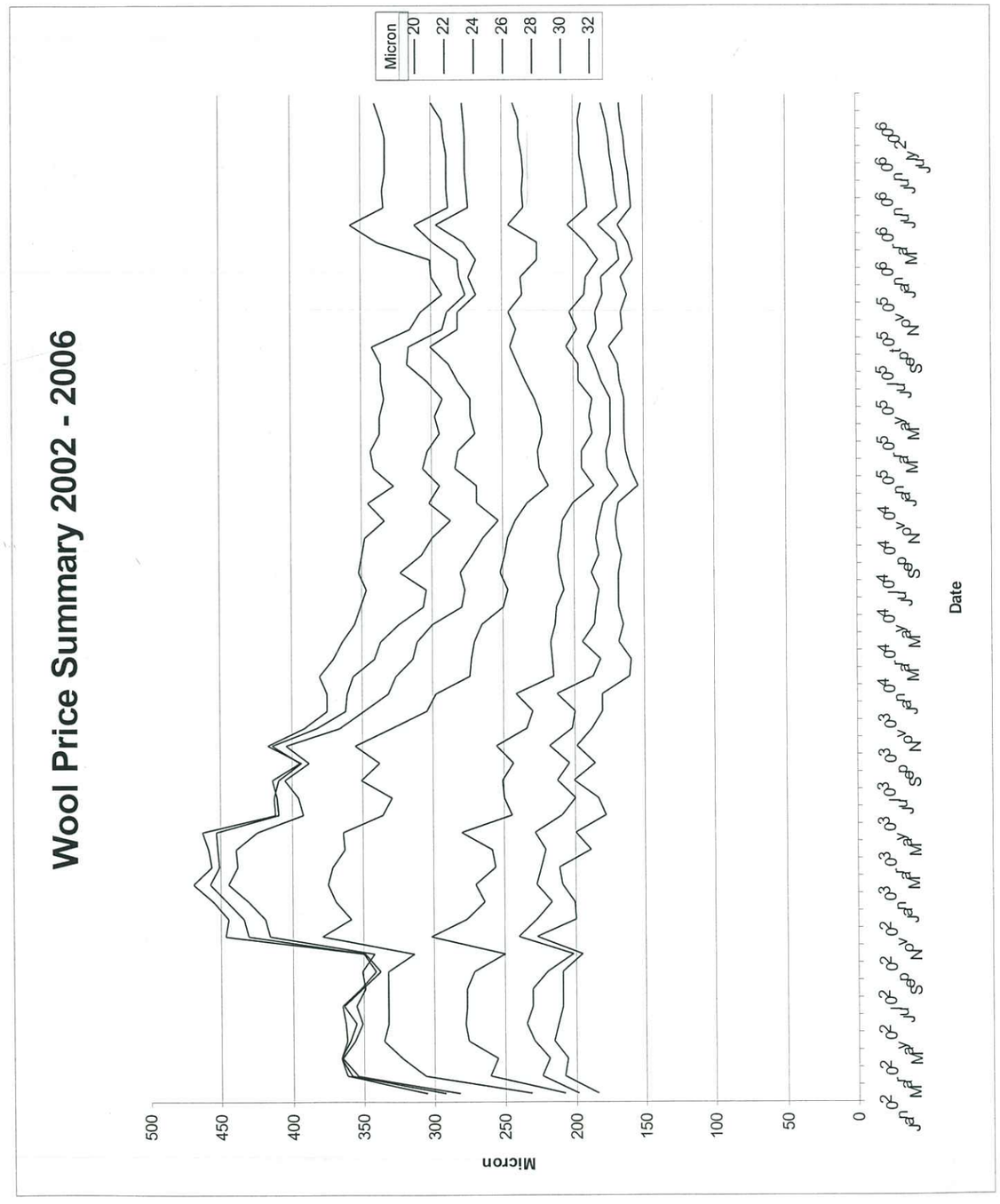
Mineral Resources has hired me as temporary GIS Manager whilst Alex Blake is away on 12 months study leave. The job promises to be interesting, with a combination of Agriculture Department and Mineral Resources tasks.

I have worked previously as a consultant for 20 years. The work has been diverse, with GPS/GIS for State Councils and Utilities, and also mapping, drafting, and illustration for the mining, engineering, academic and private sectors. My introduction to this job happened during 'Farmers Week'. I got the opportunity to meet a few faces and put names to others; plus see the poster presentations, and listen to guest speakers.

Farm Mapping is an important part of this job, so please contact me for assistance with any aspect of farm mapping or for more information on what is involved by contacting me at Mineral Resources on telephone 27322, fax 27321 or email ddavies@mineralresources.gov.fk

WOOL PRICE TREND OVER TIME

Based on weekly DOA Wool Reports



Due to the amount of photographs for publication this month, I've had to include the Wool Price Trend Over Time graph as black and white only. All the lines are stacked in the same order as the legend, but if you would like a colour copy, I can either post or email you a copy if you get in touch with me. Thanks, Siân

WEATHER & WHATEVER

By Siân Ferguson

For once, I have some lines to fill on my weather page and I think for the first time in my life, I can't actually think of anything to say (which I'm sure my father won't believe sitting reading this out at the abattoir, but hey, miracles happen Dad)!!

Since taking over the recycling effort from Helen Wallace, I've managed to bully people into taking 84 ink cartridges and 1 mobile phone to the UK with them, for Freepost on arrival. We've since received more inkjet cartridges and a HUGE pile of stamps which will shortly be offloaded onto some poor suspect travelling northbound!! If you have an inkjet printer, please remember to forward your old cartridges onto me (hand them over to DOA staff or someone coming into town, who can just drop them in the office or down at Mineral Resources) so I can pass them onto Guide Dogs for the Blind UK. Likewise, I'm also after your old mobiles for charity recycling, something that I never thought I would hear myself say in the Falklands!!

Well finally, onto the weather!! Temperatures were generally above average, with the monthly high of 12.7°C being recorded on Thursday 30th and the lowest reaching -6.4° on Wedensday 29th. The wettest day was on Monday 7th when 7.2mm fell. There were 12 days of snow or sleet, along with six days of hail. There was no thunder and four days of fog, which are around average for this time of year.

In total there was 79.4 hours of sunshine, which is 19.3 hours less than average. The sunniest day was Tuesday 22nd, when we saw 7 hours of sunshine. There were 5 days of no sun being recorded. Monthly wind speeds were below average at 12.9 knots. The highest hourly mean speed of 31 knots and the highest gust of 45 knots both occurred on Thursday 17th. There was ten days with gusts over 33 knots, which is less than the monthly average. No gales were recorded, this is the first month this has occurred since June 2004.

Location		2005				2006							
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Stanley	2005	19.3	28	45.5	87	56.5	42	39.5	76	30	41	68	28.5
	Average	*41*	*39.5*	*46*	*68*	*74*	*57*	*59*	*58*	*58*	*50*	*46.5*	*45.5*
MPA	2005	14	32.3	40.1	67.3	89.2	32.3	45.2	61.9	47.4	72.8	58.8	43.5
	Average	*33.5*	*34.6*	*36.6*	*57.9*	*63.1*	*46.5*	*56.8*	*54.1*	*49.5*	*58.1*	*45.7*	*36.7*
Bleaker Island		10	17.5	23	36	135	52	37	43	26	66	42	43
Cape Dolphin		-	-	-	19	52.5	24.5	22	50.5	39	51	45.5	30.5
Darwin		-	-	-	40	63	20.5	25.25	20.5	25	48.5	34	39.5
Elephant Beach		14	19.5	43.5	68	64	37.5	37.5	59	34	64	52	45
Fern Ridge		-	-	-	-	-	-	35	57	58.5	63	45.5	-
Head of the Bay		13	21.5	35	71	77	38	40	68	18	62	58	47
Moss Side		-	-	-	62	53	29	36	57	46	58	54	42
Paragon		-	-	-	-	-	-	-	42	43	18	14	12
Pebble Island		-	14.5	16.5	44.8	66	26	22	60	45	43	42.5	37.5
Port Howard		14	24.5	47	52.5	131	48.8	48.5	71.5	82.5	80.5	71	75.5
Saladero		-	15	22	41	56	26	37	26	45	-	-	28
Shallow Harbour		17	15	18	35	-	19.6	33.25	51	47.5	48	53	57.5
South Harbour		-	-	-	-	30	10	28	30	40	45	53	44
Swan Inlet		3	11.5	41.5	47	66.5	24	45.5	49.5	43	72	54	72
Wineglass Station		14.5	17.5	63.5	58	87	32.5	36.5	66	62	63	61.5	47

Our thanks to the following for providing the DOA with monthly rainfall figures:
Mike Rendell, Phillip & Sheena Miller, Peter Wakefield, Riki Evans, Ali & Marlane Marsh, Ted & Sheila Jones, Michael & Donna Minnell, Vernon Steen, Raymond Evans, Ron Reeves, John & Viv Hobman, Mike & Donna Evans, Andrez Short, Bobby Short and the MPA Met Office.
If you would like to collect rainfall data for the DOA, then please get in touch for more details.

FIMCO – SEPTEMBER UPDATE

By John Ferguson

Firstly, we would like to welcome Rodney Lee to FIMCo as Logistics Officer. Rodney has been involved with FIMCo since the outset, in one role or another (until the end of August as a Director) and already has a good understanding of the operation. Please contact him in the first instant on all livestock and transport matters.
Tel: 27013 Fax: 27113 Mob: 53002 E-mail: rlee@falklandmeat.co.fk
(the planning sheet sent out recently had a mistake in the e-mail address, sorry!)

Cattle Supply Agreements

We have now heard from a number of farmers, and we are presently collating the information. Rodney will soon be contacting everyone wanting to supply cattle, so a supply plan can be agreed with individual farmers. Obviously, there is a period during which there will be an oversupply, and where this occurs, we will be looking to spread the excess over other months. It is inevitable that some form of quota may have to be introduced during part of the year, and where this occurs, FIMCo will be looking to take animals from those farms consistently producing the better quality animals. In order to allow both FIMCo and producers to better plan ahead, we will soon be looking to extend the Supply Agreements to 2 or 3 years.

pH Testing - Cattle

We have now received the replacement meter, and suppliers will see the results as part of the kill sheet. As the following graphs show, there is a direct correlation between pH levels and the various aspects meat eating and keeping quality. We will be monitoring this over the coming months, especially as this is the time of year when the overall quality of beef is most difficult. Results will be published in future editions of the Wool Press.

You may be interested in the following information and graphs, and time will tell how compatible they are to the Falkland Is.

Extracts from the Australian manual on Meat Safety, Quality and Veterinary Public Health

Temperament and Stress Excitable animals display a much more adverse reaction to the stresses of pre-slaughter handling and transport than do quiet animals. Quiet breeds and animals that are used to being handled will ultimately produce better meat.

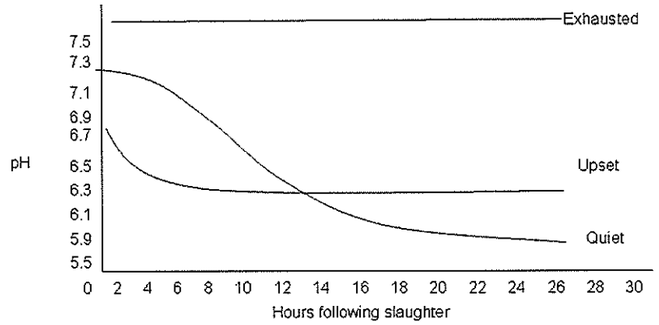
The amount of stress an animal suffers during handling and transport depends on its temperament, handling during the journey, condition of the animal and journey duration. Animals arriving in a stressed condition rarely get a chance to quieten down prior to slaughter.

Thinking back, how many times can you remember eating beef from cattle finished on a tussac island, (following a couple of hours chasing the beggars around through dense tussac and seals.....) only to find that whilst it tasted good, it was very tough chewing?

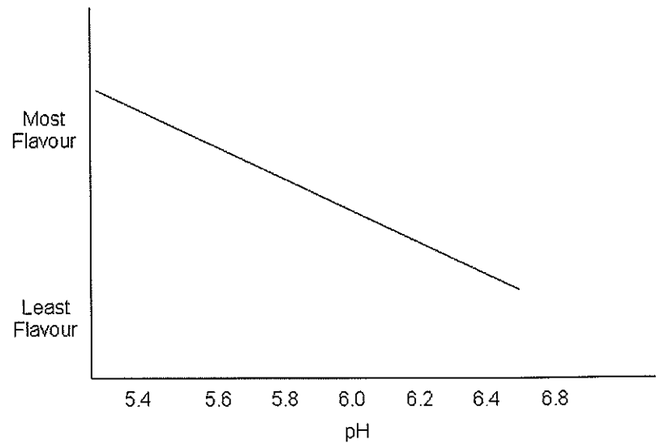
Compare this with the odd occasions, when they were in the right place, at the right time – and were able to be shot immediately. I guess that not many of us made the link then.

The main difference is that (along with most other countries) the animals are transported live to the place of slaughter now, (and) the **customer** has a choice – if they are not satisfied with the overall quality of the product, they can buy the imported cuts at a very competitive price.

The upside is that the majority of wholesale purchasers state that they want to buy local beef (and are willing to pay a slightly higher price for it) – so long as the quality is consistently good.



1. Change in pH versus time post-mortem for animals in various stages of stress

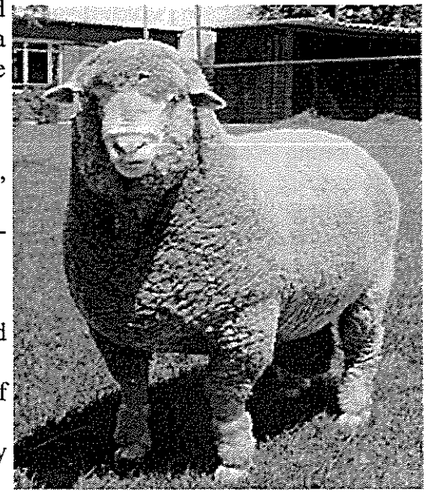


2. Relationship between pH and beef flavour

DOHNE MERINO

History

- Dual-purpose breed developed by the South African Department of Agriculture using Peppin-type Merino ewes and German Mutton Merino Sires
- Progeny interbred and selected for high fertility, rapid lamb growth and fine wool under commercial pastoral conditions
- Breeding programme initiated in 1939, breed society formed in 1966
- Selection since 1970 has been done with the aid of performance and progeny testing
- Dohne today is a well-balanced, dual purpose breed that allows the commercial producer to market both a quality heavy weight slaughter lamb as well as fine medium white wool able to be sold as Merino wool



Adaptability

- Easy care features include, excellent conformation, fleece rot and fly strike resistance
- Adaptable to a wide range of environmental and climatic conditions

Production

- High fertility (110 to 150%) is combined with rapid lamb growth rate
- Slaughter lambs can achieve a saleable weight of 50kg at 6 months of age
- These sheep can produce 5 to 6kg of high quality white wool of 18 to 22 micron

MERINO

History:

- The Australian Merino has been developed over the last 255 years from animals from Spain, Germany, South Africa, France, England and the United States
- Produces wool ranging from approximately 12 to 25 microns
- Flourish in a wide range of environments
- Essentially wool producers cutting in excess of 4kg of high value wool
- Possible lambing percentages of 100 to 130%
- Can be crossed with meat breeds to produce prime lamb
- Can be horned or polled

The four main types of Merino:

- Ultra-fine: The finest wool fibre in the world with a fibre diameter of 17.5 microns and finer
- Fine—Medium: Has a micron range of 19.6 to 20.5 and can cut 5 to 8kg of wool
- Medium: Fibre diameter of 20.6 to 22.5. These are the most numerous types of Merinos and produce a fleece which is heavy, soft handling with a good colour
- Strong: Most prominent in hot and arid areas of Australia. They are large framed, plain bodied and open faced making these animals an "easy care sheep"

MPM

History

- MPM sheep are a product from the soft rolling skin system
- Pioneered by Dr. Jim Watts, who began his research with Merinos as far back as the 1970's
- The idea is that it is possible to grow longer, softer and more wool if the skin is thin and loose
- Thin, soft skin encourages less primary fibres to develop, and results in wool with lots of secondary fibres, free growing and unlikely to be entangled
- The sheep's body has also been "stretched" to a 60/40 carcass, with the 60% at the rear end, not only good for meat sheep but also for ease of lambing
- These animals are in general clear faced and plain bodied, bred for both wool and meat

Adaptability

- MPM sheep are now becoming widely spread throughout Australia and South America and are adapting favourably to harsh conditions in both continents
- We at West Lagoons decided if they could live in Patagonia that we would try them here and, so far, they are doing well
- We now have about 600 half bred animals, these are living quite happily alongside our regular Polwarth/Corriedale flocks

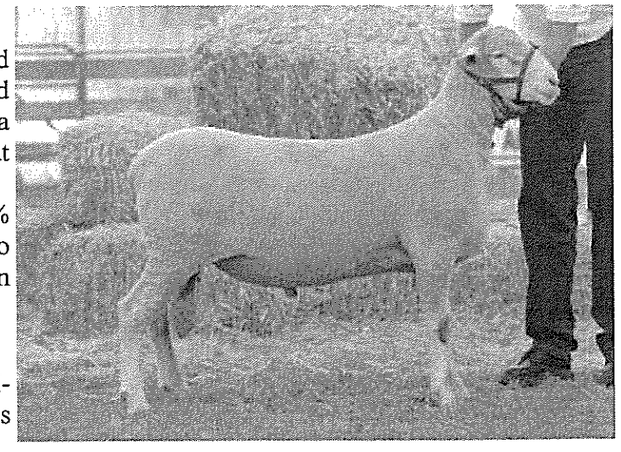
Production

- Although based primarily on the Merino, these sheep also have been crossed with breeds such as the Finn and White Sussex for meat and high lambing percentages
- The Finns, although not a wool animal, have naturally thin skins and are excellent mothers
- The MPM can produce not only about 5kg's of fine wool twice a year, but also a good meaty body

POLL DORSET

History

- The Poll Dorset was developed in Australia between 1937 and 1954 with the aim of breeding a specialist meat sheep without horns
- Poll Dorset's provide over 65% of the short woolled rams used to sire production of prime lamb in Australia



Adaptability

- Able to cope with diverse climatic conditions from sub tropics to the cold highlands

Production

- Poll Dorset rams start working at an early age and have the ability to sire quality prime lambs with phenomenal growth rates under good conditions
- Ewes are early maturing and prolific with 120+% lambing rate
- Ewes are capable of breeding all year round
- Ewes are excellent mothers with outstanding milking ability
- The wool is a dense Down type, white without coloured fibres, hair or kemp in the range of 26 to 30 microns, low wool value is a problem

WORK EXPERIENCE AT THE DOA

The Department of Agriculture were lucky enough to play host to two enthusiastic students from the Falkland Islands Community School for two weeks starting late July. Lucinda Lowe spent her time with Sarah Bowles in the Veterinary Section while Karl Chaloner donned a white coat for his placement in the Laboratory.

- LUCINDA LOWE

"When I first came in, I thought being a Veterinary Nurse was just about assisting the Vet and cleaning up. But no… it is much more than that, as I found out. I was given paper work to do, and answering telephones (which I do not like doing). I also had to wash up the instruments and clean the operating table, benches and cages. I also had to go travelling to camp, which I enjoyed.

Every time an animal was brought in, Joe would go through and explain everything he was doing in detail. This was not just for my benefit but for the owners benefit too.

I also learnt about some of the main drugs and injections that Joe used in the ops. I cannot remember the names of the drugs, as they are hard to pronounce, but I know that no matter what drug you use there is always a risk of the animal dying when under general anaesthetic.

During the first week, most of the operations we did were mainly spaying cats, but we (Joe and I) did get to go out to camp, to visit a lame calf and a bald horse.

During the second week, on the Monday, I got to go out to camp again, with two of the Agricultural staff, Nyree and Peter. We had to scan about two hundred and twenty seven ewes to see if they were in lamb. This was new to me, so I was excited when I got to see the lambs on the screen; it was also a bit chilly on the hands… for Nyree.

When in the Veterinary Section, I spent most of my time either in Vic's office sorting out paper work; Import Licenses and Fishing Boats, or in the operating room cleaning utensils/ the operating table/ benches and doing ops.

On the Wednesday of the second week, in the afternoon, Joe and I went down to Fipass and checked a fishing boat for: Bacteria and/or Cleanness, Temperature of the Freezers, Paperwork done by the men on board and last of all the squid

On the last farm we went to visit we castrated a pig. Watching this from a distance I noticed it is similar to castrating a cat, but because the pig was more likely to roll around in mud and bacteria infested places, Joe had to stitch the ball bags back up, whereas on cats you don't have to. I was fascinated by this trip because I have never seen operations done on a farm before, and it was the closest I have ever been to a pig.

I also got to watch Joe do dentistry on a cat too on the second day before I finished Work Experience.

Overall I have enjoyed my stay at the Veterinary Department and it has helped me get more of an idea of what I may be studying at College. I have enjoyed working here and I definitely want to carry this on as my future career. All the staff at the Agriculture and Veterinary Department have made me feel very welcome here and it has been a great pleasure to work alongside Joe and Sarah."

"We would like to express our thanks to Lucinda for all her help in the Veterinary section over the two weeks. She was a great person to have around, mucked in with all the rotten jobs as well as the interesting ones and even got a grasp on the sense of humour required to work in the Vet Office.... We wish her all the very best for her future studies in the Veterinary field. Thanks again Lucinda!" - ***Sarah Bowles, Veterinary Services Officer***

- KARL CHALONER

"When I arrived on the first day at The Department of Agriculture, I didn't know what to expect. Lucky for me, Lyn and Gordon gave me something a little easier to do to start with. The first test I did was to find out how many Microns/Fibres there were in samples of wool. I then moved on to chemical tests in crop samples. The tests were for Nitrogen, Calcium, Potassium and Phosphorus contents.

By the end of the two weeks they had me counting the amount of eggs in faeces samples and walking around in mud looking at areas of grass. I have enjoyed my time at the Department Of Agriculture, I have learnt a lot from Lyn and Gordon. I may consider a job in this area for my future career."

"Karl was inclined to think he might like to pursue a career in Chemistry so spent most of his time with Gordon doing wool micron testing and trace mineral analyses on feedstuffs. He seemed to enjoy his time here and was a pleasant addition to our team " - ***Lyn Dent, Senior Laboratory Technician (Diagnostics)***

Next Dog Dosing Day (Droncit)...
...Wednesday 27th September

LAST MONTH'S SOLUTIONS

Wordsearch: Annie, Barren, Beauchene, Beaver, Bird, Bleaker, Broken, Burnt, Calista, Carcass, Cochon, Dyke, East, Fanny, George, Golden, Great, Hummock, Jason, Kepple, Kidney, Lively, Low, Middle, New, North, Northwest, Passage, Pebble, Penn, Pleasant, Quaker, Rabbit, River, Ruggles, Saunders, Seadog, Sea Lion, Sedge, Speedwell, Split, Staats, Stop, Swan, Tea, Tyssen, Weddell, West Point, Wolfe.

The Mind Boggles

Concerning her age: We conversed on January 1 and her birthday is on December 31

In hot water: I will be shot

Barber: Answer: Each barber must have cut the other's hair. The logician picked the barber who had given his rival the better haircut.

Murder Mystery: It was the Maid She claimed that she was getting the mail but there is no mail on a Sunday!

MISSING IN ACTION FROM FARMERS WEEK!!

We have the following garmets at the Department of Agriculture which were left at the Town Hall during the Farmers Week sessions;

- Dark grey knitted jumper
- Grey knitted cardigan with black and white pattern at the edges

If one is yours or you know who they belong to, then please let us know as they are both getting rather homesick now!!

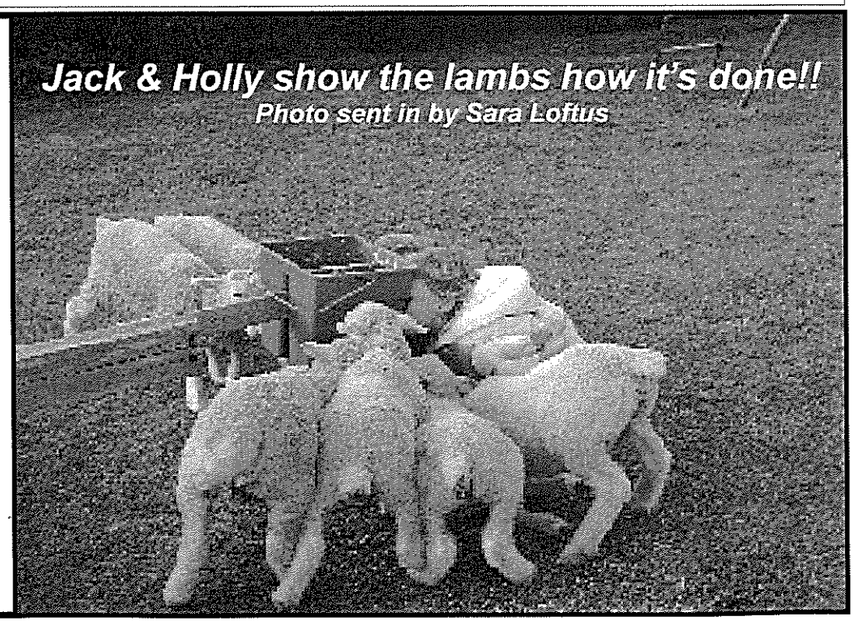
Quirky Animals Tails

Story from Ananova.com, Picture from Silkpainting.uk.com

Sheep in Germany are being kitted out with miniature wellington boots to stop them from getting infections. The PVC shoes are made by businessman Wilhelm Fennen from Boesel in Lower Saxony. Fennen said he started making the all-weather boots for dogs, but soon got a request from a farmer in Hamburg to design footwear for his flock.

"The shoes are not meant for fashion but for protection, particularly when a pet has cut or hurt its paws. "The request for sheep shoes came from a farmer who wanted to protect his animals from an infection that was going around," said Fennen, who has also provided wellies for an entire police dog unit.

Aww... how sweet!!



PUZZLE PAGE

WORDSEARCH - It's only us!!

V C W L N C H U Y J L L P A U H T P I Y
F K N H Y A U H G W V V S N K J H W A U
X P X T E B M A H F L E J O O Y P C Q Y
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N H O J S L T U O E I E G S I N Y R E E
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ANDY
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LYN
NEIL
NYREE
PETER
PHYL
POLLARD
RENDELL
SARAH
SHONA
SIAN
STRANGE
TIMMY
VIC

THE WOOL PRESS

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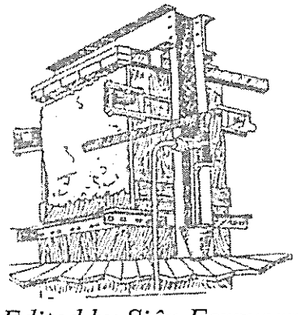
In this issue...

Plus our usual Puzzle Page on the back!!



Edited by Siân Ferguson
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EDITORIAL

The complete package. That is what is contained in this edition of the Wool Press.

First of all set up the group breeding scheme. Has anyone spoken with those farmers of the community that went the next step after Farmers Week and visited South Africa? Can the South African experience be adapted to the Falkland Islands?

Next read about how to improve sheep nutrition with purchased added protein or controlled grazing or growing supplementary feed in the form of Swedes or a combination of all three methods. All these options are available. Which one suits your situation best? Which is the most cost effective for your situation? Which will give the best return on investment? The Wool Press can't answer these questions - can you? Have you tried?

Extra feed means improved reproductive rates. This means extra lambs for selection and surplus for the abattoir. Thereafter the wool goes to the double dumper for cost saving transport to anywhere in the world and mutton and lamb can go to the abattoir.

So all the information is here - at least the first step. All you have to do is plan and after the plan comes the implementation.. Set out the aim and objectives. What do you think the farm can sustain and what will give the best profits? Is it lambs? Is it mutton? Is it wool? Is it penguins? Is it a combination of wool and mutton? Does the present flock structure fit in with the objectives? Is the farm productive enough to achieve the objectives?

Have a read. Have a think and if worse comes to the worse have a chat with someone. If all else fails, and it's all too difficult boil the jug, get the coffee and head to the back page and do the wordsearch.

Vic Epstein
Senior Veterinary Officer

Due to space restrictions we have been unable to include the Wool Price Trend Over Time Graph and monthly rainfall totals. They have been included as a leaflet , otherwise please contact Siân for a copy if you have not received one.

NSF POLWARTH GROUP BREEDING SCHEME

By Neil Judd

In what is believed to be an important step forward for the future of the Polwarth sheep breed in the Falkland Islands, the Agricultural Advisory Committee recently approved the creation of a Polwarth Group Breeding Scheme (GBS) at Saladero.

The Polwarth GBS will be centred around the structure of the existing NSF. NSF families (x8) plus NSF identity will be maintained, but NSF material (rams in particular) will be used to benefit farmers wishing to participate in the GBS. Individual farmers who will contribute a number of their best young ewes each year (4 tooth?) that satisfy the breeding objectives set down by all contributors. In return for the contribution, farmers would receive an agreed number of rams (shearlings) back in return. At this stage it is envisaged that for each 5 ewes contributed farmers would obtain 1 x ram back. In addition, contributors would also receive back any ewes they directly supplied when no longer required by the Polwarth GBS.

For example if a farm supplied 25 ewes each year, they would receive 5 rams back (from their **own** ewes joined to Polwarth GBS rams) plus their own ewes when culled or no longer required. In exactly the same way if a farm supplied 50 ewes each year, they would receive 10 rams back.

It should be noted that ewes contributed in say 2007 would be joined in 2007 and rams due to the farm would be supplied after shearing in late 2008 or early 2009.

The creation of the Polwarth Group Breeding Scheme is believed to represent an outstanding opportunity for farmers interested in the Polwarth breed to get involved in helping to shape the future of the breed in the Falklands, to assist in dramatically increasing the rate of genetic progress of the breed both in the central Polwarth GBS and also importantly on their own farms.

It is firmly believed that much greater progress can be made with the Polwarth breed through farmers working together than as individuals. With such a small genetic base for Polwarths in the world, the need for farmers in the Falkland Islands to work together on the breed with their best animals is real and arguably presents the best opportunity in the long term to improve productivity from the breed.

It should be noted that animals produced by NSF ewes in the GBS would be available for sale each year to the general farming community as usual.

I would welcome any comments, queries or indeed expressions of interest from farmers interested in joining the GBS. As time progresses more details will be provided to interested parties.

Have you checked your Farming Statistics??

Due to a number of errors made with the Stock Return forms,, we will shortly be posting out amendments.

Please get in touch with Siân before 20th October if you would like your figures checked.

WHO IS MY DAD?

DNA TESTING FOR SHEEP IN THE FALKLANDS

By Peter Johnson

Have you ever come across an animal that you thought was superior, and said to yourself that you would like to confirm your suspicion that it came from a certain ram or ewe. Or would you like to get into pedigree recording of lambs but can't find the time to painstakingly tag every lamb to its mother?

Well DNA testing has arrived in the Falklands and may be the answer for you!

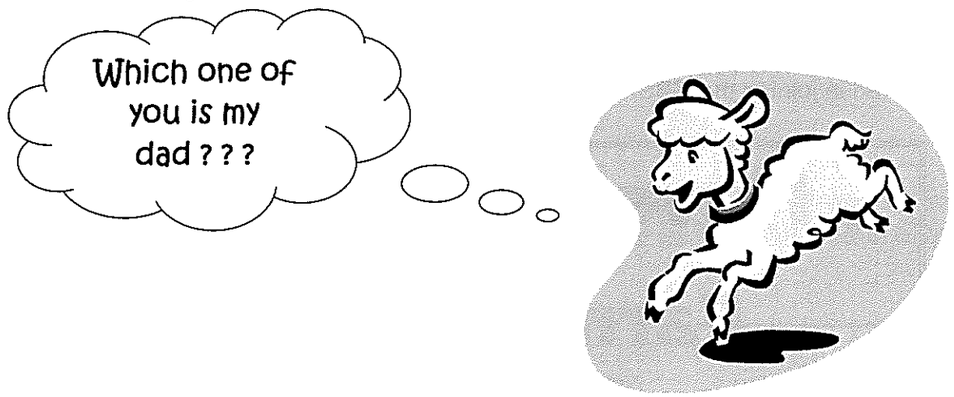
What is it?

DNA testing was once clouded in the mystique of American cop shows tracking down the killer in the ultimate who-done-it. There are now however, many companies around the world who are offering DNA testing for production animals, including sheep and cattle.

The benefits of DNA testing are mainly for people who want to chart the pedigree of their animals. The reasons for this tracking is usually linked to Breeding and Selection, where being able to accurately identify who is the sire/dam or progeny of an animal will influence the calculation of that animals breeding value.

Traditionally, people both here in the Falklands (and in different sheep breeding parts of the world) go to great lengths to identify these animals, usually on the day that the lamb is born. The animals are tagged and that tag number linked to their mother. I can tell you from personal experience, that chasing day old lambs around a paddock for hours trying to catch them and then read their mothers tag may be a bit of fun for one day, but when the mob of ewes lamb for say, 8 weeks, and you have to be out there every day rain, hail or shine, it can wear thin very easily.

There are also other problems with having to single sire mate, and find enough paddocks to single sire lamb into, as ewes are notorious for stealing each others lambs, and even when you get out to tag on the day of birth, the lamb may not be hanging around its mother, but some other ewe high on hormones mistaking that lamb for there own.



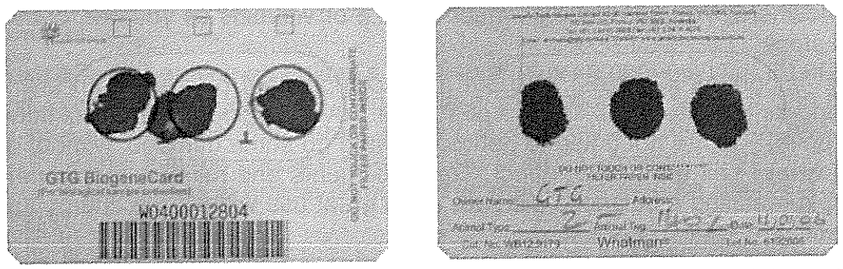
The Process

So enters DNA testing. The process is quite simple. A small sample of blood is taken from each animal you want identified, and a sample from the rams used or from the ewes lambing (if you want both sire and dam records). These blood samples are just drops of blood as shown on the cards below, filled out with details of the animal and popped in the post. It is that simple.

The animals are run in, usually at lamb marking time, and their tag number recorded with the

blood sample. A small lancet is used on each sheep to prick the ear and get the blood droplets. Obviously, a clean lancet must be used with every sheep, and hygiene is important to protect the DNA that gets transmitted onto the card.

Once the lab receives the samples, results can be emailed back to you. Results show who the parent was, and the accuracy of that record. Accuracy is estimated at greater than 99%, if the collection is done correctly.



The credit card sized blood collection card with 3 drops of blood and the animal's details.

The Costs

 # Note – as this is an Australian Service, prices have been converted to £ using the exchange rate at the time of writing of $2.47 Australian Dollar's to the £1.

So this service isn't for free, but the priced has dropped significantly, even in a few short years that the tests have been offered. The cards cost £0.60 each to order, with a rebate of £0.20 when the cards are received back at the lab. The test itself costs £5.06. So for a small nucleus flock of 100 ewes, producing 70 lambs from 5 different sires, where ram pedigree was required, the costs would be –

70 lambs + 5 Rams = 75 tests
Test + Card (- rebate) = £5.06 + 60p – 20p = £5.46
75 x £5.46 = £409.50

With postage to Australia of £15 at a maximum (2006 prices), that works out at £6.07 per lamb. It may seem like a lot, but when you factor in all the costs associated with collecting the information in a traditional way, and the reliability of the results, it can be the cheaper option. If you are interested in using DNA sampling, please contact me for more information at the DoA on 27355 or email pjohnson@doa.gov.fk

Next Dog Dosing Day (Droncit)...
...Wednesday 8th November

PROTEIN – THE HOLE IN THE BUCKET

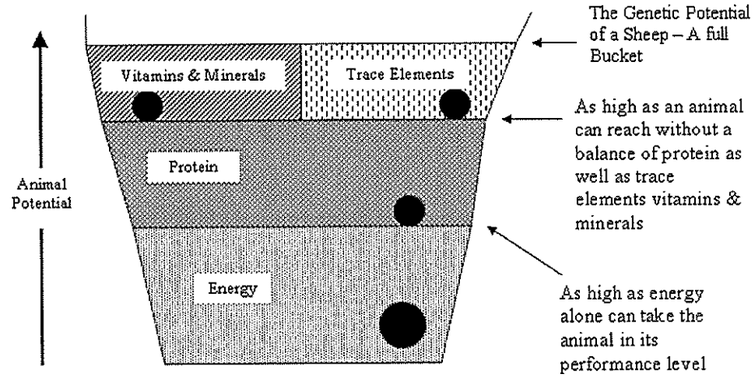
By Peter Johnson

An animal's diet needs to consist of a few major things for it to stay alive and to be productive. This includes energy, protein, trace elements and vitamins & minerals. For an animal to be as productive as it can (to reach its genetic potential), it needs all of these things. However, some of these are more important than others. Energy for an animal is like the diesel for your Rover. Without it, it's going nowhere. You can have as much protein or vitamins as you like, but without energy, the system stops.

The second most important, is protein. Without a full complement of protein, an animal has no chance of reaching its potential. It is like the oil for the Rover. Although not absolutely essential for the Rover to drive, you are not going to get too far, and do some damage, without oil. It is the second layer, in what I call the bucket effect. Trace elements and minerals come next, and although important in reaching a balanced diet, are of no great use without the energy and the protein to go along with it.

"Good nutrition, of which protein is a major part, is the key to an animal reaching their full genetic potential"

Let's imagine that the bucket below is the potential provided by the animal's genetics to perform. If the bucket is full, the animal has reached its full potential performance. If the bucket is empty, the animal is not performing at all, if it isn't dead already. In between the two extremes, we have animals performing to different levels.



The black dots in the diagram (which is my best attempt to draw a bucket!) are holes in the bucket. Without energy, the bucket cannot begin to be filled up, as it just leaks out the bottom. On the other hand, if trace elements are missing, you are never going to get a full bucket, but you can at least obtain some of the animal's genetic potential.

The black dots in the diagram (which is my best attempt to draw a bucket!) are holes in the bucket. Without energy, the bucket cannot begin to be filled up, as it just leaks out the bottom. On the other hand, if trace elements are missing, you are never going to get a full bucket, but you can at least obtain some of the animal's genetic potential.

Sheep in the Falkland's have access to energy all year round in the form of grass, even if it is not green and lush. Even the oldest, rank white grass stand contains energy. It may have a low digestibility, and it may not be the most palatable feed, but even so, it is still energy. So we are half way there. It is at this level that a lot of stock struggle to get above.

For the animal to digest the carbohydrate (energy) in mature grass, the microbes within their rumens have to do a lot of work. These microbes require protein to work most effectively. The nature of the climate and the soil here means that the naturalised plant species are inherently low in protein, and even introduced species cannot provide enough protein throughout the year, as they too are limited in their growing season.

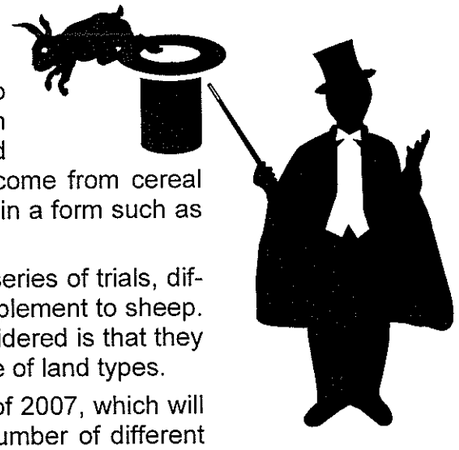
"Sheep in the Falklands have access to an adequate energy source, but it is protein sources that are lacking"

So if we supply a protein source for the animal, not only will it balance out with what it is currently eating in terms of energy, it will in fact drive the rumen microbes to be more efficient, and may even increase the amount of energy (or grass) that the animal eats. By eating more of the carbohydrate source (for example white grass) and eating some of a protein source, the animal is going to be better off nutritionally, and make more efficient use of what it eats.

This may all sound too good to be true, but balancing energy and protein is the first concern of any animal nutritionist. Once this is right, then you can look at the vitamin & minerals and other trace elements.

The flow on affect of getting an animal's nutrition right is compounding. If an animal is receiving a balance of energy and protein, and is held with a good condition score, it is in a better position to face any inclement weather that comes its way. It will grow a better fleece and be able to raise a lamb and look after it in the critical first few weeks of life. This supplementation doesn't need to be done all year round, just at critical points in the year when pasture quality is at its lowest point, such as June – September.

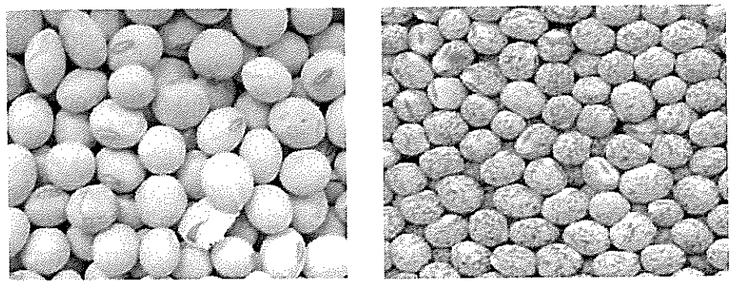
So where is this magical protein?



Well, first of all, it is not magical, it is scientifically proven to increase energy intake if protein has been lacking. Protein for stock supplementation can come in many forms and varieties, although not from rabbits out of a hat! It can come from cereal grains, other whole grains, by-products and from nitrogen in a form such as urea (known as non-protein nitrogen sources).

The Department of Agriculture is currently sourcing for a series of trials, different forms of protein that are suitable to be fed as a supplement to sheep. Among one of the important factors that needs to be considered is that they can be practically fed during a Falkland's winter on a range of land types.

We will be conducting large scale trials during the winter of 2007, which will evaluate the response and the cost effectiveness of a number of different protein sources. We are at this stage looking to feed the animals for 100 days. We will be looking at different methods of feeding the products out as well as any difference between the products themselves. Protein supplements likely to be trialled include whole pulses such as lupins, protein meals, pellets and animal licks.



Soy beans (left) and narrow leafed lupins (right). Two of the feeds proposed to be used during the trial.

In the coming few month's we will begin the search for properties willing to host the trials of the different protein sources. We will work with these farmers to develop what is a practical method for feeding their sheep, accounting for their circumstances, their current machinery and infrastructure, and the particular landscape features of their farm. There will more to follow on this project later in the year.

"The Department of Agriculture will be trialling a number of supplementary protein feeding options on Falkland Island farms over the winter of 2007"

If you have any questions or comments about supplementary feeding of protein to sheep, please contact me.

MAXIMISING PROFIT FROM HOGGETS SUPPLIED TO FIMCO

By Neil Judd

The time of year has come again where farmers start to plan for the sale of surplus lamb and hogget to the abattoir. Several key issues are believed important in the planning; as follows

- Is it the right business decision to supply lamb/hogget for slaughter; if you're not sure the DOA can assist you to work through the logic of this decision as it applies to you individual circumstances so please do not hesitate to ask for assistance if you are in doubt.
- If the sale makes sense to your business, how do you then maximise the money you make?
- November, December and early January have been shown over and over again to be the peak months for grass growth and also peak grass quality; If you plan to sell **hoggets** to FIMCo it will be critical to be working with your animals through this 'prime' period to put on as much weight (and hence money!) as possible. The key is to manage the animals appropriately to your available resources; 'opportunistic harvesting' from a set-stocked system is unlikely to be the most profitable system.
- Results from the DOA simulated grazing trials on local pastures have clearly shown that 'graze and spell' management grows more quality grass than 'set' stocking. If more grass is grown it could be utilised by farmers to either feed more animals (to achieve at the same level as before) or maybe to produce the same number of animals, but individually heavier animals; both options could be considered.
- 'Best bet' graze and spell patterns for hoggets to achieve maximum results would be something like; one week on a camp (of good quality feed!); then rotate through another say 6 camps (each being grazed for about a week) before coming back to the first camp (had a six week spell!). Obviously the better the quality of the feed on offer; the better the results. Simply rotating the animals through poor quality, rank white grass or diddle dee camps would be unlikely to achieve the results needed.
- It is also recommended that farmers supplying hogget to FIMCo consider the worm burden of their hoggets and the disastrous impact on growth rates that high worm burdens can have on young sheep.
- Taking faecal samples to check the worm burden of your animals is very easy and very quick; please do not hesitate to discuss this process with one of the vets or agricultural advisors.
- Time of shearing is another one of the 'variables' for farmers to consider when deciding to sell hoggets to FIMCo. Of course it is important to satisfy the 'health requirement' of allowing shearing cuts to heal prior to slaughter; but the question arises whether any opportunity exists to add more value to your hogget wool clip by adjusting their time of shearing.
- Falkland Islands research has shown that maximum wool growth rates occur during late spring and early summer (not really surprising!). If wool is growing at say 10 to 15 grams per day it is possible for hoggets to grow up to half a kilogram of wool over a 5 to 6 week period during November and December! So the question remains, does any opportunity exist for you to capitalise on this peak wool growth period to increase overall return from the sale of your 'hoggets' to FIMCo?

Summary

It would appear that potential exists for Falkland Islands farmers to increase total returns from their hoggets from both increased wool production and increased liveweight at slaughter. How this can best be achieved on individual farms will obviously vary. It is recommended that any farmers with a query on what they can do to maximise returns from the sale of hoggets to FIMCo this season, should start by simply calling one of the Advisors at the DOA to discuss the issue.

During Farmers Week, a dark grey knitted jumper and a grey knitted cardigan with black and white pattern at the edges were left at the Town Hall during the DOA sessions (or on the evening of the Variety Show). Please give us a ring on 27355 or 27322 if you know who they belong to. If they remain unclaimed, they will be taken to the Police Station to be added to their lost property collection.

THE DOUBLE DUMPER

By Charlene Rowland, FIDC

The Beast of FIPASS has arrived! As many farmers will know, the double dumping machine purchased by FIDC has now been fully installed in the wool warehouse on FIPASS, and is ready to tackle the coming season. The machine, which double-compresses two bales into the size of one, was commissioned by Brian Parfrey of Grampian Wools in Melbourne, who paid a three-week visit to the Islands to get 'The Beast' up and running.

FIDB's purchase of the machine was inspired by farmers' enthusiasm for change at Farmers Week 2005, when many of those attending said they wanted to find new ways to add value to their wool. The recent introduction of a containerised shipping service to the Falklands means that those who want to double-dump their wool can now fit more into a container and should be able to ship more for their money (around 70% more wool can be put into each container using the double dumper). Those who prefer to ship break-bulk will also benefit, with reduced road haulage costs at the other end of the operation.

As well as bringing along his technical expertise, Brian also brought his observations of wool sales and shipping in the wider world, where he said double (or triple) dumping had been the norm for the past 20-30 years.

Brian Parfey at the controls of the double-dumper

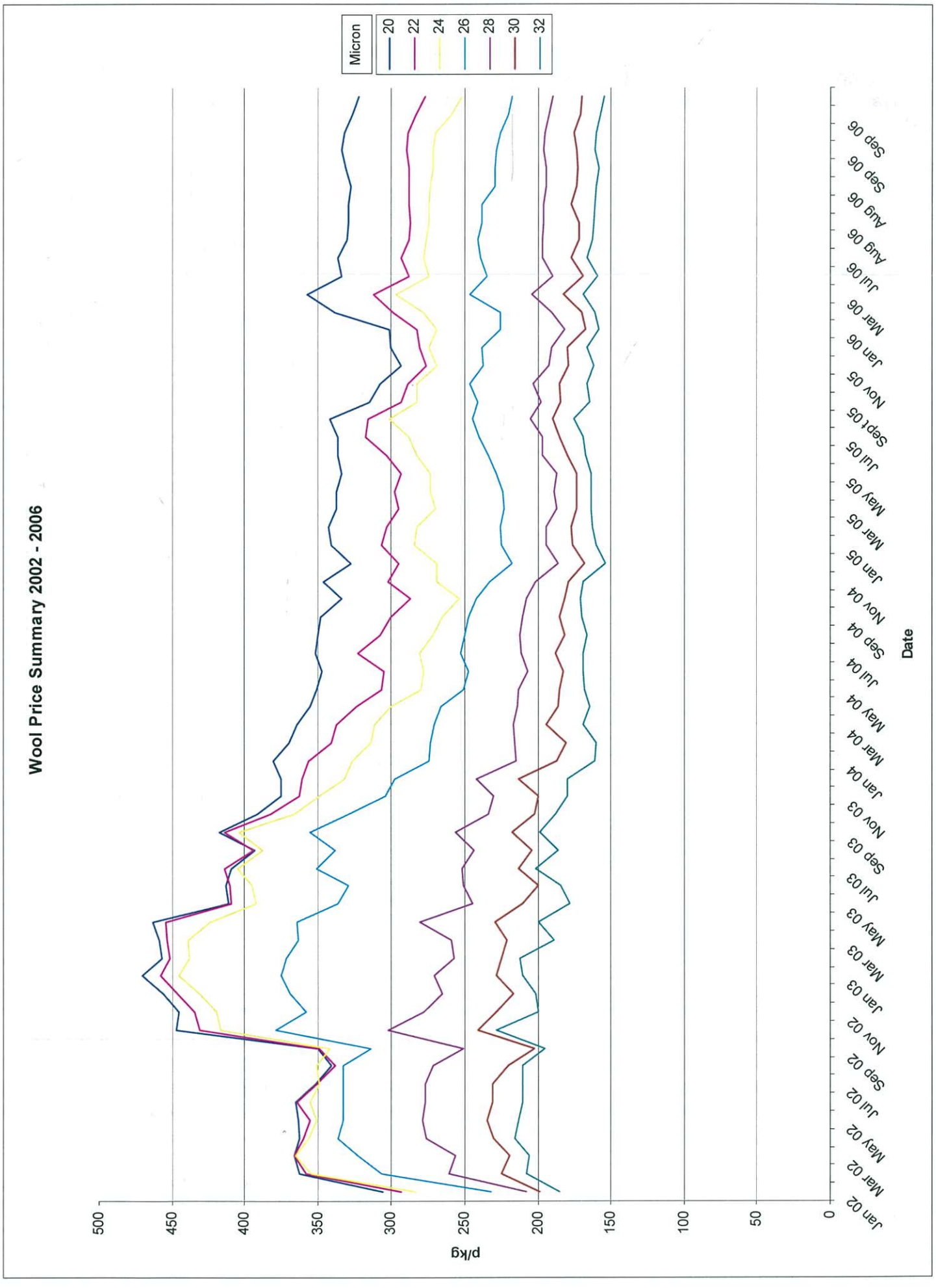
The machine itself is a Fletcher-Davis 360 T Debaler Wool Dump Press - one of only three of this particular model to have been built. She cost AUD$30,000 second-hand, and was sourced by Rodney Lee through his existing contacts in Australia. Rodney also helped arrange shipping, with the machine squeezed into one 40' and one 20' container for the journey from Melbourne, via Montevideo.

She is a back-entry hydraulic press of 360 tonne capacity, with bale feed and dump extraction equipment taking bales directly from and to floor level, with automatic or manual operation. She can squash two normal bales of wool into a smaller than average single bale with 4 high-tensile steel bands. The machine can run up to 50 dumps an hour, ideally with two operators. The machine has been well-trialled and all signs are that she will work well once the season gets underway. The next step is for FIDC to appoint a contractor to operate the machine. At the time of writing, the tender has been advertised and FIDB are expected to make a decision in mid-October on the successful operator.

Aiding Brian Parfrey in assembling the machine were Mark Stroud, Alfie Hobman and Coco of Byron McKay and Andrew Bone of No. 1 Electrical. All four men did sterling work in helping Brian to achieve what he was brought to the Islands to do, and FIDC thank them for their efforts. Raymond Poole has now been commissioned to run the machine for demonstration purposes until a contractor has been appointed – watch this space!

WOOL PRICE TREND OVER TIME

Based on weekly DOA Wool Reports



SEPTEMBER RAINFALL UPDATE

By Siân Ferguson

Temperatures overall for the month were below average, falling to -4.6°C on Tuesday 19th and reaching a maximum of 12.6° on Friday 29th. There was a total of 13 days of snow/sleet and 10 days of hail, which was above the monthly average. No thunder was recorded and there was 5 days of fog.

September saw a total of 118.3 hours of sunshine, which is below average. There were 2 days with no sunshine and the sunniest day was on Friday 29th with 10.4 hours. Wind speeds were below average, with the highest gust reaching 51 knots on Thursday 28th. There was 16 days with gusts over 33 knots (under the norm) and there was 4 days of gales, which is normal for this time of year.

Monthly Rainfall Totals

		2005			2006								
Location		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Stanley	Rainfall	28	45.5	87	56.5	42	39.5	76	30	41	68	28.5	24
	Average	*40*	*46*	*68*	*74*	*57*	*59*	*58*	*58*	*50*	*46.5*	*45.5*	*41*
MPA	Rainfall	32.3	40.1	67.3	89.2	32.3	45.2	61.9	47.4	72.8	58.8	43.5	44.5
	Average	*35*	*36.6*	*57.9*	*63.1*	*46.5*	*56.8*	*54.1*	*49.5*	*58.1*	*45.7*	*36.7*	*34*
Bleaker Island		17.5	23	36	135	52	37	43	26	66	42	43	40
Cape Dolphin		-	-	19	52.5	24.5	22	50.5	39	51	45.5	30.5	23.5
Darwin		-	-	40	63	20.5	25.3	20.5	25	48.5	34	39.5	20
Elephant Beach		19.5	43.5	68	64	37.5	37.5	59	34	64	52	45	31
Fern Ridge		-	-	-	-	-	35	57	58.5	63	45.5	-	30.5
Head of the Bay		21.5	35	71	77	38	40	68	18	62	58	47	32
Moss Side		-	-	62	53	29	36	57	46	58	54	42	32
Paragon		-	-	-	-	-	-	42	43	18	14	12	29
Pebble Island		14.5	16.5	44.8	66	26	22	60	45	43	42.5	37.5	31.5
Port Howard		24.5	47	52.5	130.5	48.8	48.5	71.5	82.5	80.5	71	75.5	58.75
Saladero		15	22	41	56	26	37	26	45	-	-	28	21
Shallow Harbour		-	-	-	-	19.6	33.3	51	47.5	48	53	-	30.5
South Harbour		15	18	35	30	10	28	30	40	45	53	44	25
Swan Inlet		11.5	41.5	47	66.5	24	45.5	49.5	43	72	54	-	27
Wineglass Station		17.5	63.5	58	87	32.5	36.5	66	62	63	61.5	47	28

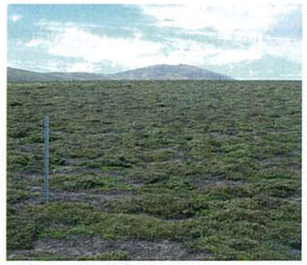
The Department of Agriculture would like to thank the following for providing us with their rainfall totals each month; Robert & Elaine Short, Philip & Sheena Miller, Peter Wakefield, Riki Evans, Kevin Marsh, Ted & Sheila Jones, Mike & Donna Minnell, Vernon Steen, Raymond Evans & Arina Berntsen, Ron Reeves, John & Viv Hobman, Marlane & Ali Marsh, Mike & Donna Evans, Andrez Short and Bobby & Lyndsey Short.

If you are interested in collecting monthly rainfall data for the DOA, or if you already do and would like to pass on the figures each month, please contact us for more details.

MANAGED GRAZING TRIALS - POSTERS

West Lagoons Managed Grazing Trial

Peter, Shelley and Karl Nightingale



Trial Details:

- **Size of site:**396ha
- **Date established:** October 2005
- **Type of camp:** Valley greens with diddle-dee ridges, shallow soils with some peaty areas. Beach access to three camps
- **Number of sheep:** 135 ewes and lambs, 530 shearlings
- **Fencing:** Two wire electric with solar energiser

Aims of the Trial:

- To increase sheep production and economic returns using "Managed Grazing" techniques
- To increase sustainable production from white grass camps in the most economic manner
- Maximise percentage of productive fine grasses over a number of years

Paddock Name/No.	Area (ha)	Total Days Grazing	No. days for 2 grazings	No.days for 3 grazings
14	27.75	8	4	3
15	40.65	12	6	4
16	50.50	15	8	5
17	9.96	3	2	1
18	4.35	1	1	0
19	36.03	11	5	4
20	27.54	8	4	3
21	27.44	8	4	3
22	33.84	10	5	3
23	100.66	31	15	10
24	36.96	11	6	4
Total	396	120	120	120

Table 1: Grazing Plan

Management:

- Site being rested over the winter period
- Site grazed for 135 approx days during November, December, January, February and March
- Sheep moved every 5—8 days

Observations:

- Shearlings that went into the trial as hoggets are much quieter and very easy to handle due to regular movement and contact
- Usual hogget/shearling camp rested all summer now has excellent feed for winter
- Bare areas in less productive paddocks now showing more grass growth due to rest

Setbacks:

- Ewes did not do well. Perhaps only dry OR wet sheep in this system
- Mis-mothering of lambs caused by shearling ewes moving faster when changing paddocks

Group	Average Weight		Body Condition Score	Wt gain/g/day	Wt gain/g/wk
	Weighing Dates				
	28/11/2005	02/02/2006	02/02/2006		
MPM Shearlings	26.7	29.4	2.2	39.41	275.84
Flock Shearlings	25.8	26.8	2.4	15.25	106.78
Ewes with lambs	34.4	33.7	1.7	-10.25	-71.80
Ram lambs	8.6	14.7	nr	90.95	636.62
Ewe lambs	9.2	14.7	nr	82.17	575.21

Results of grazing on trial site

Outcomes:

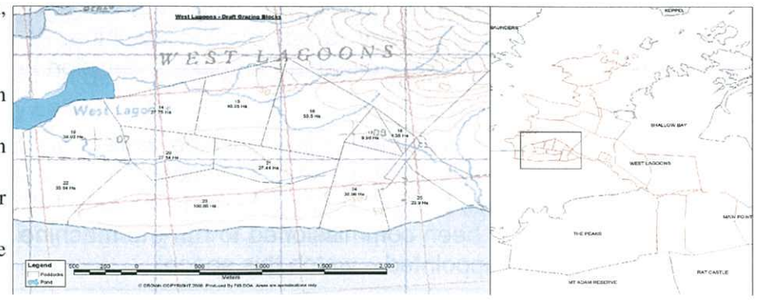
- Initial results suggest the increased stocking rate has not adversely affected the sheep
- Unsurprisingly, ewes with lambs initially lost some weight

Lessons Learnt and Essentials of Managed Grazing:

- Electric fences need to be working well otherwise it trains some animals to continuously move through them
- Times between paddock movements dependant on grass growth
- Careful monitoring to ensure sheep are not left in paddocks too long
- Regular sheep shifting not a problem, incorporates with other on going work

Future:

- Spread legumes in spring and walk in using sheep to improve pastures
- Forthcoming season only hoggets in the system
- Split largest paddock and add another two
- Gradually adopt system for other ewe grazing camps



DISPLAYED DURING FARMERS WEEK

White Rock Managed Grazing Trials

Rodney and Carole Lee

Trial Details:

- Size of site: 256ha
- Date established: Autumn 2005
- Type of camp: White grass with some greens
- Number of cattle: Approx 200
- Fencing: 12 km of mainly 2 - wire electric

Two-strand electric fence

Aims of the Trial:

- To make better use of feed by rotating stock in summer period
- Improve pasture by more intense stocking rate
- Stock impact will allow attempt to improve pasture species by direct drilling or broadcast sowing/ frost seeding

Month	Rain mm	Month	Rain mm
July	43	Jan	116
Aug	54	Feb	37
Sep	18	Mar	40
Oct	18	Apr	54
Nov	41	May	60
Dec	38	Jun	86
Ave.	50.4	Total	605

Table showing annual rainfall

Management:

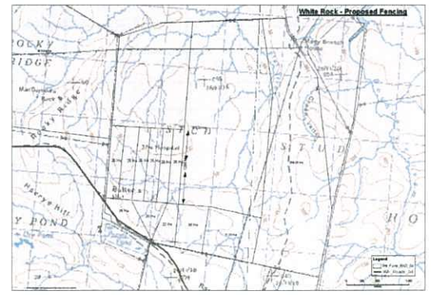
- Rotating cattle through all ten strips during summer months

Observations:

- In one season it is easy to see more green grass is showing, especially in the bog white grass
- Stock easier to handle and respect electric fences

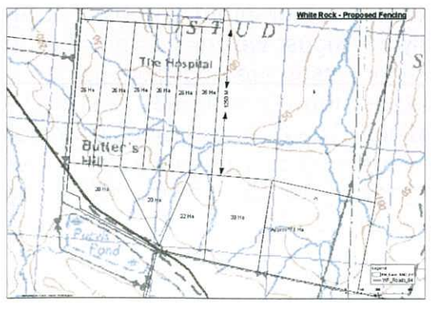
Setbacks:

- In the first instance we left the stock on the area for too long and as a consequence they lost condition before winter



Outcomes:

- Grazing approximately 200 animals at a stocking rate of 73 DSE/ha compared to previously set stocked at 1.1 DSE/ha per year
- Pasture already improved
- Improved stock handling facilities



Lessons Learnt and Essentials of Managed Grazing:

- Do not let stock graze pasture too short before moving
- Keep regular checks on what is happening

Future:

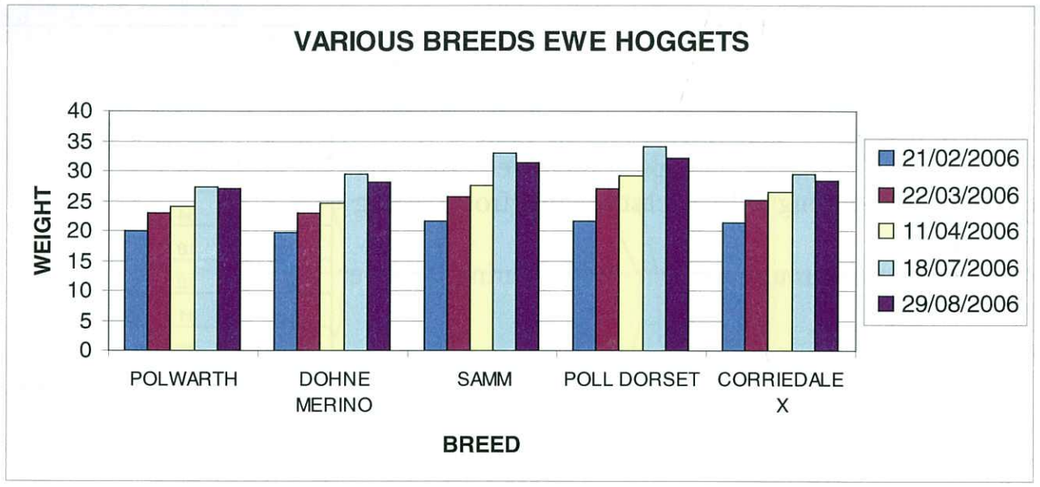
- Introduce new grasses and legumes
- Possibly rotate sheep behind cattle
- Bigger system for winter grazing

SALADERO EWE TRIAL

By Lucy Ellis

As a result of genetic improvement activity carried out last year. Saladero has a considerable number of ewe hoggets from a range of breeds and crosses. The animals are individually identified but have been managed as a single mob since weaning. The breed/crosses are: Polwarth, Dohne Merino, SAMM, Poll Dorset and Corriedale x Dohne Merino.

As all of these breeds are currently being trialled by growers in the Islands it was decided that the opportunity could not be missed to obtain information on how the various breeds/crosses compared. These animals have been regularly weighed since birth and below is a graph and a table showing how each breed/cross has performed so far:



	Polwarth	Dohne Merino	SAMM	Poll Dorset	Corriedale x Dohne
21/02/2006	19.97	19.73	21.53	21.52	21.34
22/03/2006	22.97	22.89	25.78	26.96	25.1
11/04/2006	24	24.47	27.52	29.22	26.37
18/07/2006	27.4	29.53	32.84	34.16	29.52
29/08/2006	26.97	28.06	31.29	32.2	28.45
	37*	44*	51.6*	56.5*	37.6*
	50.5**	66.6**	76.9**	85.9**	55.6**
	*Daily weight gain (gms) over 189 days (21/2/06 to 29/8/06)				
	**Daily weight gain (gms) over 147 days (21/2/06 to18/7/16) before weight loss occurred				

Table showing weighing dates and weight trends

It is interesting to note that even though the Poll Dorset is a purely meat breed and the SAMM a dual-purpose breed that their weight gains are almost identical. Another interesting point is that the Polwarths lost the least weight (0.43kg) between the July to August weighings and the Poll Dorsets the most (1.96kg). Between the other breeds the weight losses are negligible as can be seen. The Corriedale x Dohne has performed very well against the other breeds and is third heaviest and after the Polwarths has lost the least weight (1.07kg). The Dohne Merinos were trailing the Corriedale x Dohnes for some time and then rapidly caught up only to lose a fair amount of weight at the last weighing (1.47kg), it will be interesting to see which of these two breeds makes the most weight gains when the spring growth of grass comes.

It has to be noted that these figures and readings cannot be described as definitive as there is a

large disparity in the number of animals in each breed group, even so, they are worthwhile to see if a trend is appearing.

Breed numbers:
Polwarth: 105 Poll Dorset: 6 SAMM: 56
Dohne Merino: 63 Corriedale x Dohne: 20

These animals will continue to be weighed over the coming summer and autumn to follow breed, environment and genetic trends. When these hoggets are shorn, they will have their fleeces weighed, as well as yield and micron measured. With this information we can assess the commercial aspect of each breed for their wool value. When we combine their wool value and their carcass traits we can then assess the overall potential of each breed/cross option. In addition, each group will be assessed for face cover and body condition.

We asked John Hobman, Saladero Manager, for his views on the different breeds and his first comment was that in his opinion it is too early to make any assessment as the hoggets are just ten months old plus they are not "free ranging" as most other hoggets are but get handled at least once a month. However, his observations are worthy of mention – he has noticed that the SAMMs are very active and are quick to put on weight. The Corriedale x Dohnes appear very hardy whereas he has found the clear-faced Dohnes to be unco-operative on occasions when being worked. The Poll Dorsets, are docile, slow and have little regard for fences. Then we come to Johns self-confessed favourites, the Polwarths, which are placid and have held their weight better in the winter months than the rest which neatly backs up the figures from the chart and table (but are still the highest group overall). John does freely admit that he is a wool breed man rather than meat or dual purpose and feels that the other breeds have yet to prove themselves.

Over time it will be critical to follow the various breed and crosses to assess reproductivity performance and hardiness. Once all of this information comes to hand, farmers will have a powerful data-set to assist with their long term decision making.

Thank you to John and Viv for providing the information and honest comments on the hoggets.

Attention all QFW Stencil holders

Can all stencil holders who have not yet returned their self-audited forms please do so as soon as possible.

Farms that have successfully completed the forms and complied with the standards for QFW will be issued with a bi-annual certificate to display in the shearing shed.

Shearing starts very soon – please get those forms in ASAP.

Thank you, Lucy

For your information:

It has been brought to the Department of Agriculture's attention that bales intended for the double-dumping machine really should not exceed a maximum weight of 220kg. Whilst we understand that not all bales will be double-dumped, we thought that all farmers should at least be aware of this bale weight restriction.

MAXIMISING PROFIT FROM NEW SEASON LAMBS SUPPLIED TO FIMCO

By Neil Judd

Obviously the same decision making process used to evaluate the economic logic of supplying hoggets to FIMCo is recommended to be used to decide if supplying new season lamb to FIMCo makes sense on your farm; if for now it is **assumed** that this process has already been completed, what are some of the key things that might affect how much **money you** make out of the exercise.

1. 'Quality' of lambs at weaning

- It is clear that feed conditions before a lamb is born and also in the first four to six weeks of its life will have a major bearing on a lambs growth rate and overall well being.
- Well nourished ewes in late pregnancy produce well nourished lambs of good birth weight with a greater chance of surviving in harsh conditions of the Falkland Islands.
- Well nourished ewes produce vastly more milk than poorly nourished ewes and hence also produce lambs that grow more quickly. Whatever can be done to economically improve the feed on offer to ewes in late pregnancy and early lactation will have a massive impact on the quality of lambs (and also on the numbers that survive) through to lamb marking, weaning and if surplus exist, through to sale.

2. Feed on offer

Feed conditions in terms of both quantity and quality on offer are highly likely to fall from late January onwards each year. This decline is believed to be a response to basic weather patterns, declining rates of moisture penetration into the soil, and also, it is suggested, naturally occurring changes in soil nutrient availability. As feed quality declines in late summer and early autumn each year, animal growth rates also decline. This natural decline in feed quality and quantity makes it very hard to produce 'new season' lambs for sale that achieve target weights off natural camp or indeed from re-seeds, particularly if set stocked.

In the Falkland Islands a number of options exist to grow food for lambs for use in February, March and April. For example, oats, tricticale, pasja as well as early turnips and other forage brassicas. However the key is to determine which of the options offers the most economic scope to fill this critical gap when pasture conditions deteriorate. Please do no hesitate to discuss this issue with Andrew Pollard. Ground preparation 'windows' are opening **now** and planting windows will be open **soon**, so do not wait until it is too late!

To assist with cash flow and feed budgeting the following 'rules of thumb' might be of interest;

- It might cost about £150 to break-up and plant 1 x hectare of new ground for say early turnips.
- 1 x hectare of early turnips, if sown at the right seed rate and depth into well prepared ground and planted at the **correct** time (moisture and month of the year) might produce enough feed for say 100 lambs for 75 days of grazing.
- Good quality lambs have the ability to put on in excess of 100g/day, above what they might achieve from natural pasture during February, March and April. Over 75 days of grazing, this could represent approx 7.5kgs of extra liveweight or up to 3 to 3.5kgs of extra carcass weight.
- 3 to 3.5kg of extra carcass weight at the current rate of £1.25/kg has the potential to provide a rate of return of around £4/lamb against a cost of approximately £1.50/lamb to grow the feed.
- Weaners are very vulnerable to internal parasites, which if present in large numbers could affect their growth rates. All of the comments regarding regular monitoring of the worm burden of your animals made in the article about supplying hoggets to the abattoir should be checked. Note – regular monitoring is essential, not necessarily regular drenching!
- The scientific consensus is that the weaning of lambs at around 12 weeks of age is generally the most logical compromise between lamb growth rates and long term impacts on ewe liveweight and body condition for the next breeding season. At around 12 weeks of age lambs have fully functioning rumens and are able to obtain all of the nourishment that they need for growth and development completely independently of their mothers. The key task of course, is to provide the feed resource for them to actually be able to do so. Remember, the comment made earlier; that at weaning time (late January or maybe February) feed quality and feed quantity have started to decline rapidly.

Any farmer with a comment on anything raised in either of the articles on supplying lambs and/or hogget to FIMCo is urged to contact the author or any of the Advisors at the DOA.

FALKLAND ISLANDS MEAT COMPANY

By Rodney Lee

I would just like to inform farmers that we are looking at the possibility of shearing some of the stock prior to slaughter at the Sand Bay abattoir this coming export season. I must stress that it is very much still looking at the possibilities at this stage but felt that we would like to keep farmers in the picture as much as possible as the implications of this are that it would not be possible to use the farm paint brands on any animals to be shorn and an identification tag would have to be used instead.

At the moment we are looking at any mature animals with wool over 25mm in length and possibly some/all of the lambs. The lambs in particular will be depending on what sort of price we can achieve for last seasons skins, which should be known over the next few weeks. Once we know this, we can look at the economics and decide which is the better option. As has been discussed in the past, we do have a problem with dust/dirt contamination when the wool gets longer and this may be one way to help alleviate this. We will keep you informed as decisions are made.

On another subject, I would like to congratulate Elephant Beach on still being able to produce beef with a fat score of '10' in the middle of September and prove that even in Falkland conditions, with crops etc, it is possible to achieve these excellent results. I am not saying it has to be done with crops but this is the way Rikki and Ben went this season.

For those that are interested, the below are fat score results from Jan this year up until now :-

Beef Fat Scores Report as at 26 September 2006

		Fat					
Age Group	**Total WT**	**0**	**<3**	**3-4**	**5-12**	**>12**	**Number**
0-6 months	608.38	1	7	0	0	0	8
1-2 years	2922.8	0	3	6	7	0	16
2-3 years	20329.1	0	10	17	61	2	90
3+ years	32720.5	0	12	23	75	11	121
Mature	693.94	0	0	0	3	0	3
Prime	2525.3	0	1	6	5	0	12
Veal	132.4	1	0	0	0	0	1
Totals	59932.5	2	33	52	151	13	251

SHEEP BREEDS - POSTERS DISPLAYED DURING FARMERS WEEK

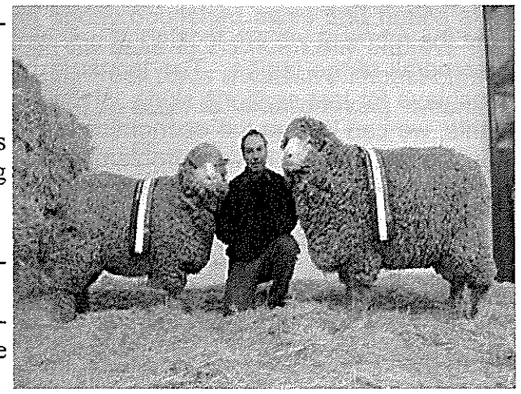
POLWARTH

History

- Established over 100 years ago in Australia
- Now proving its value as a dual purpose breed
- Originated from crossing Saxon Merino rams with Lincoln ewes
- Selected for both wool type, fertility and meat
- Produces fleeces of moderate value wool and sound carcasses

Adaptability

- Can adapt to a range of climatic and regional conditions
- They thrive in a mix of hot and cold temperatures with low to high rainfall, either hill and high country or lowland environments
- Have the ability to retain body weights under extreme conditions



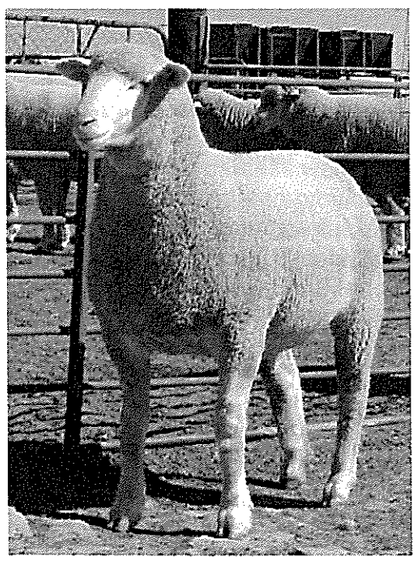
Production

- Due to a high Merino content, Polwarths have the ability to achieve all year breeding with a high ovulation rate
- Good mothering instincts
- Fibre diameter in the range of 22 to 24 microns
- High wool weights, sound feet and the ability to produce good lambs are a few of the many good traits of this breed

SAMMI

History

- Originally known as the German Mutton Merino, the first 10 ewes and a ram were imported to South Africa from Germany in 1932 by the Department of Agriculture for a breeding programme
- As a result of the breeding programme and selection for better wool quality and conformation, the type became known as the South African Mutton Merino
- It is a dual purpose sheep (60:40 mutton to wool emphasis)
- Breed developed to produce an early age slaughter lamb as well as good quality wool



Adaptability

- Able to cope with many and various climatic conditions; exceptional in dry conditions

Production

- SAMMs have high lambing percentages—150+% are not uncommon under good feed and weather conditions
- Excellent dual purpose animal—early maturing meat/wool sheep of high fertility
- Produce fine wool in the range of 23 to 25 micron
- They are hardy and have a strong constitution

SHEEP GROWTH ON SWEDES

By Peter Johnson

A small trial was conducted on Port Stephens and Stoney Ridge farms during August and September looking at how sheep performed on swede crops. The results were very promising, with all classes of animals on the swedes gaining weight over the three week trial period.

Port Stephens

200 hoggets were weighed and placed onto the swede crop. A second group of 200 hoggets were weighed and returned to their camp. Three weeks later the same groups of animals were weighed. At this time a worm egg count was also done, with no worms burdens in the hoggets grazed on the swedes or in the camp The table below shows the difference in weight between the groups from the start to the finish of the trial. All results were statistically significant.

	Swedes	Camp
Pre Grazing Weight	20.7	20.4
Post Grazing Weight	21.6	20
Difference	**0.9**	**-0.4**

All weights shown are mean body weights in Kilograms

Stoney Ridge

193 sheep of various classes (Wethers, Ewes, Shearlings and Hoggets) were placed on the swede crop for a period of three weeks. All animal classes gained weight, with older animals doing better than the younger classes of stock. Due to numbers of stock in each of the classes however, only the results of the wethers in this trial are considered statistically significant.

	Wethers
Pre Grazing Weight	42.7
Post Grazing Weight	45.2
Difference	**2.7**

Weights shown are mean body weights in Kilograms

The Future

These small scale trials have produced some promising results, although it is important that further work is carried out in upcoming seasons to ensure the gains are repeatable and also of economic value. Growth for any animal at this time of year has a very positive impact on not only body condition, but also reproduction, lamb foetus growth rate, wool quality and wool quantity and over all mob death rates. The full paper and results for both of the trials are available if you would like more detail.

COWS THAT MOO WITH AN ACCENT - WHATEVER NEXT?!

By Siân Ferguson & Joe Hollins

Well now I have heard it all. English dairy farmers have now been backed up in their claims that cows moo with a local twang. Not only do the owners in Somerset believe their animals have a regional accent, but professors at the University of London said this is a common occurrence in birds and that there are distinct chirping accents found around the country in birds of the same species.

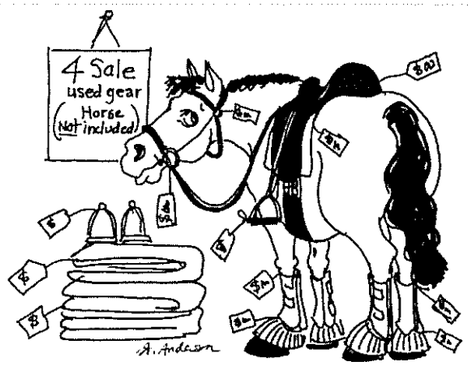
They claim that in small populations, this could also happen in cows, with people encountering distinct variations which are most affected by the immediate peer group. It has been suggested that this phenomenon was noticed because of the close bond between farmer and cow. One farmer in Glastonbury even quoted "I spend a lot of time with my animals and they defiantly moo with a Somerset drawl".

Understandably thinking that I finally had proof the English population had gone mad, I spoke to Veterinary Officer Joe Hollins to gain a technical opinion on the matter...

"Well Siân, it's perhaps not as far fetched as it may seem. After all if we, as mammals, can have such far ranging accents, why not cattle? I'm a stranger to these lands but I can certainly tell the difference between a Wester and an Easter, and I dare say the Fitrovians and Salvadorians can distinguish themselves from the Howardians and the Hill Covians.

As a point of interest when Darwin the famous naturalist visited these fair islands there were some 30-40,000 head of cattle. He noted that they had self bred into three distinct herds: a lead coloured breed upon the slopes of Mt Usborne, a reddish breed beyond Port Pleasant, and a black and white breed down on Lafonia. They calved at different times and I'll bet they mooed in different tones. But what about sheep? Is a baa a baa? Do the posh and finer fleeced Dohnes and Cormos frown upon the guttural bleatings of the coarse haired Corrie? Siân - man the phones."

What can the Wool Press offer you?



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Information!!

Each month the Wool Press is packed full of interesting and informative articles relating to agriculture in the Falklands and elsewhere, written by departmental staff or you, the reader.

Each issue includes an editorial from the bosses, chart depicting the latest wool price trend for a range of microns, rainfall figures from around the Falklands and a light-hearted animal story to make you laugh.

Don't forget to also look out for our monthly puzzle.

If you would like to contribute an article, place an advertisement or order a years subscription, then please contact Siân Ferguson...

sferguson@doa.gov.fk **Tel: 27355** **Fax: 27352**

Last Month's Solutions

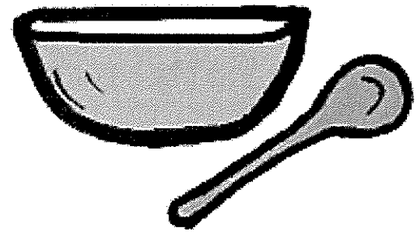
V C W L N C H U Y J L L P A U H T P I Y
F K N H Y A U H G W V V S N K J H W A U
X P X T E B M A H F L E J O O Y P C Q Y
M V O A Y A L B P Z C L Q H L P L N I W
N H O J S L T U O E I E G S I N Y R E E
S M I A E J A H N H V N Q V X J Y H M L
A W R D K F D D M R N N Q M H X B B L L
A A N H I A R B A A E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

Chocolate Fudge (eggless, for those winter months!)

Provided by Farrah Peck, Stanley

Sponge:
1 cup plain flour
Half cup caster sugar
1 dessert spoon cocoa
2 tsps baking powder
3oz butter
1 cup milk

Sauce:
1 cup brown sugar
1 cup hot water
1 tblsp cocoa



Method:
Put dry ingredients in mixing bowl. Melt butter. Then add milk and butter and stir until evenly mixed. Put brown sugar and cocoa in large jug. Add boiling water and stir until sugar desolves.

Put cake mix in a pirex dish (no need to grease) and pour sauce over the top, DO NOT STIR IN! Sauce may sit on top, but will sink down in the oven. Put in oven on medium heat for about 40 mins. Leave for longer if you like the sauce thicker. Enjoy!

PUZZLE PAGE

WORDSEARCH - Know your Falkland highs!!

S	T	H	G	I	E	H	N	O	R	Y	B	T	W	P	N	R	E	P	N
K	T	U	M	B	L	E	D	O	W	N	N	O	O	G	O	B	D	Y	A
J	C	P	T	Y	T	E	L	F	W	E	L	K	Q	D	S	L	G	T	V
E	N	A	D	W	N	H	O	E	M	I	E	Z	A	O	N	U	E	C	I
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M	I	B	R	A	E	T	I	I	N	A	L	R	H	E	O	E	R	T	S
J	S	L	Y	A	T	L	N	S	S	I	E	I	T	A	R	G	T	E	G
U	R	M	A	E	M	T	F	J	T	P	O	Y	H	D	M	N	H	R	I
C	O	H	S	S	Y	S	B	F	P	E	D	N	I	P	A	E	E	A	B
S	T	A	N	H	O	P	E	A	U	G	R	A	D	M	D	L	L	T	C
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ADAM
ALICE
BIG
BLUE
BYRONHEIGHTS
CANTERA
CAROLINE
CHALLENGER
COUTTS
DARCY
DIAMOND
DOYLE
EDGEWORTH
EMERY
FEGAN
FIRST
FOXBAY
GOAT
KEPPLE
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MARBLE
MOODY
MUFFLERJACK
NIPPLE
PHILOMEL
POKEPOINT
REES
ROBINSON
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ROSALIE
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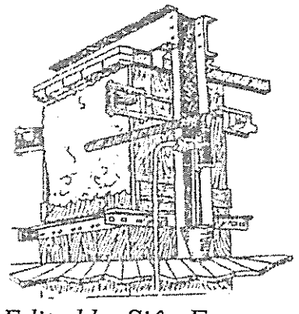

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EDITORIAL

Spring has sprung once more. You can hear the grass growing- well not quite but at least it has started. The abattoir is gearing up for the next season; the double dump is ready to press; ewes lambing; cattle caving and farmers should have made plans long ago on what to sell; what to keep and what direction to progress their farms.

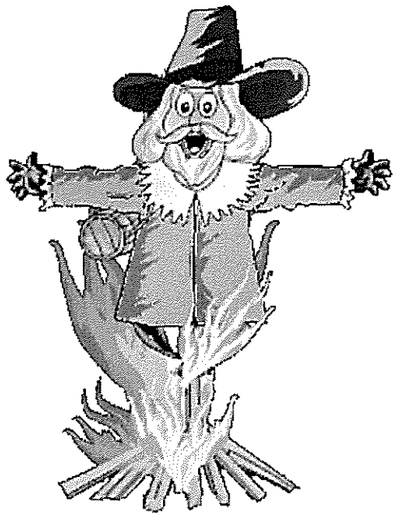
The DoA is thinking ahead already to the next winter- organizing feed trials. Just when work is reaching a crescendo in the camp you are being asked to think to next winter at the time you are trying to forget the last!

In addition to thinking of preparing for next winter you are being reminded to keep an eye out for strange happenings in the stock so anything abnormal can be investigated and Falkland Islands disease free status can be maintained. This is the time stock are seen and observed; this is the time to report strange goings on.

Farming can give one a headache!

Horses are heading into town with their feet nicely grown after a winter on the soft ground ready to be prepared for the racing season. Time to trim the hoofs, clean up the yard of hazardous materials and start the training schedules.

Guy Fawkes is on 5 November.. This is traditionally when, in Australia we used to blow up the neighbour's letterbox and scare our mates to death. Now days things are a lot more civilized but remember dogs with sensitive ears should be hidden away on the night of merriment so we don't get rung up during the night to try and fix things that have gone wrong!



Enjoy the shearing and remember this is the final process in putting together the product you will sell and have spent a year producing. Look after it!

Vic Epstein
Senior Veterinary Officer

PROTEIN SUPPLEMENT TRIALS
DO YOU WANT TO BE A PART OF THEM?

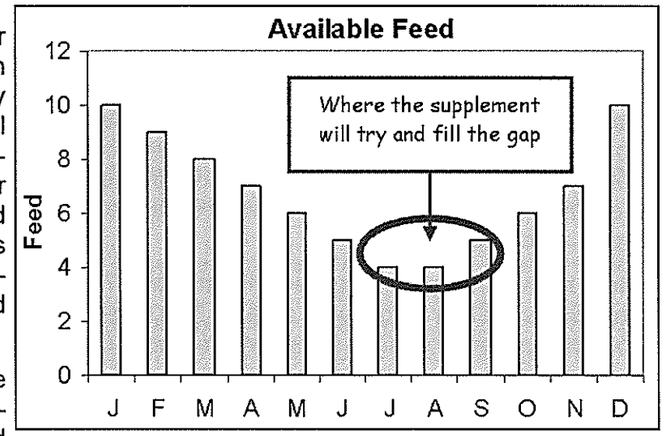
By Peter Johnson

It has long been established that low protein levels in camp feed are a major limiting factor for animals in the Falkland Islands. Not only does it have a direct effect on animal nutrition, but it has compounding effects through ovulation rates, reproduction, lamb survival, hogget death rates and mature sheep death rates.

With a more reliable freight service from South America, relatively cheap sources of protein for animal supplementation are now a more economically viable option for the Falklands. These plant products include grains, pulses, oil seeds and their various ground meals. The DoA plans to carry out experimental work in 2007 to quantify the effects of feeding a protein supplement to animals, and to come up with practical systems of feeding it out to animals.

The Trials

Eight separate trials are planned, four involving groups of ewes and four with groups of hoggets, with approximately 500 animals in each group. The trials will run for up to 100 days starting in mid-winter, traditionally when animals suffer the most from poor quality feed and harsh climatic conditions. Other animals grazing on traditional camps, un-supplemented, will also be measured during that time as a control.



Measurements on all animals will be bodyweight, condition score, fleece characteristics (weight, yield & micron) and mob death rates. Extra measurements on the ewe flocks will include reproduction data such as scanning results, lambing percentages and the follow on effects for the following year's conception and reproduction.

Expected Benefits

Nutritional research has proved repeatedly that the benefits from supplementation during the toughest period of the year and pregnancy are wide reaching. The progeny of the ewes supplemented in the trials can be expected to have a lower micron, cut a heavier fleece and have higher lifetime reproduction. Another benefit will be that if we can increase hogget ewe weights during this period (rather than them losing weight at this time of year), then many of them may reach joining weight at 18 months of age, instead of 30 or 42 months.

The Protein Supplement

The exact feed type (whole seed, pellet etc) and how it will be fed out will be determined by the farm hosting the trial in conjunction with the DoA. We need to ensure that animals have good access to the feed but also that it is available to animals on even the wettest, coldest day of the year. For this we currently have no perfect solution and encourage input from all people as to how the problem can be tackled.

The trial will run in 2007, with some of the follow up data on the ewes also collected in 2008. The trial is designed to show the response to the protein source by Falkland Island animals. There is plenty of overseas data showing positive responses, but we need to know exactly how the animals from here respond. We will then do the economic number crunching to determine if the measured positives associated with the supplementing (wool weights, survival rates etc) outweigh the cost of getting the protein here.

The Results

The results will be presented as a sensitivity table, so that it is easy to see at what price of the input (protein) becomes economically viable to supplement at, compared to the price of the output (wool / sheep meat / animal survival). For example, if the input price of protein is £180 a tonne, with clean wool at 220p/kg it may be a viable option, but at £220 a tonne and clean wool at 175p/kg it may not be. That is the sort of information we will generate to indicate at what price the supplement may be viable.

The trial as such will finish at the end of winter in 2007, although more data will be collected from some animals, particularly reproduction data, into 2008. If the results show that it is viable, then it will be up to individual farmers to source and purchase their own protein supplements if they choose to go down that path. DoA will support this stage in an advisory role to farmers with supplier contacts, feeding rates and feeding practice advice as required. If supplementing proves unviable at this stage, then the animal response curves will still be valuable information to have.

Your Questions Answered

'I am interested in hosting one of the 8 trials'
That's great! Please keep reading. I have not met all of the farmers in the Falklands so far, so I don't yet know everybody who would be interested in running one of these sites. Please contact me! The trial sites can be on East or West Falkland, or on one of the other Islands – we want a broad spread of areas.

'How many sheep do you need for the trial?'
The trial is for four farms with at least 500 ewes (preferably 1000 – 500 supplemented & 500 as a control) and another four farms with at least 500 hoggets (ideally at least 600 to 1000, again to have a reasonably sized supplementation and control groups within the trial).

'What do you want me, as the host farmer, to do for the trial?'
If you put your hand up to host the trial you can expect that I will be working closely with you over the next 6 months or so preparing for the trial, and deciding how and what we are going to supplement your animals with. If your animals are ewes we will start recording information about pregnancy status etc after joining. Before feeding starts, we will need to get all the animals in to be tagged, weighed and condition scored and split into supplemented and control groups.

During the trial you will need to ensure that the animals are fed the supplement at the right rate and at the right time. This may be twice a week or twice a month, depending on the type of system we put in place. You will need to gather the animals comprehensively when they need to be weighed, or other measurements taken. Once the supplementation stops, there will be follow up work about survival rates, weights, wool characteristics and reproduction data to collect.

'What do I need?'
First of all, the animals, and then the camps separated by good fences to ensure that only trial sheep are fed the supplement. You must have a passion for this work as I will be out an awful lot taking different measurements and seeing how the trial is going! You need to be prepared to have a go and accept that the way we feed may not be perfect to start with and may require some adaptation as we go through the trial.

'Where can I get more information and how do I get involved?'
Contact me at the DoA if you wish to have a look at the full trial proposal, which I can send to you. If you are interested in being one of the host farms, I will arrange to meet with you and discuss the trial. This is an exciting trial with results that are expected to really mean something to all of the farmers in the Falkland Islands.

Telephone: 27355 Email: pjohnson@doa.gov.fk

NSF - POLWARTH GROUP BREEDING SCHEME

By Neil Judd

Wanted - Farmers interested in progressing Polwarth- ype sheep in the Falkland Islands.

When - Enquire NOW to Neil Judd at the DOA. The intent is to have the NSF Group Breeding Scheme (GBS) fully operational for next years mating.

What will happen?

- Selected ewes from interested farms would be re-located to Saladero early in 2007 (March?) to acclimatise to the new surroundings.
- It is expected that each farm would contribute between 25 and 50 ewes to the NSF-GBS in 2007.
- Ideally ewes would be maidens or have had no more than 2 lambs.
- For each five ewes contributed in 2007, farmers would receive 1 x ram back for free in late 2008/early 2009.
- Similarly the number of ewes contributed in 2008 would determine how many rams were received in 2010; the number of ewes contributed in 2009 would determine the number of rams received in 2011 etc.
- For each 5 ewes contributed there is one-off allocation of 1 ram!
- Ewes from farms joining the NSF-GBS would be split approximately equally between the NSF existing 8 x family structure. Ewes from each farm would be mated to the best stud sires that the NSF has.
- Artificial Insemination (AI) may be considered necessary to add sufficient 'sire quality' to some families.
- Ram lambs born from your ewes would be available for you to select your quota of rams from.
- Ewe lambs born in the NSF remain the property of the NSF-GBS until no longer required.
- When ewes born into the NSF-GBS are no longer required, they will be offered for sale to members. If insufficient demand exists from members, they would then either be offered for sale to the general public or otherwise disposed of.
- Each year ewes in the NSF-GBS would be heavily culled. The expectation is that between 30 and 50% of ewes would be culled from the breeding flock each year.
- Ewes contributed to the NSF-GBS from member farms, once culled, would be returned to the farmer who contributed them.
- Once the flock is fully up and running, new female entries would come into the NSF-GBS every year from both member farms and also from shearling ewes born in the NSF-GBS.
- It is expected that after year 1 (2007) and year 2 (2008) the number of ewes required from member farms would reduce. It is possible that a member contributing say 50 ewes in 2007 would only need to contribute about 25 ewes in 2008 and even fewer in later years.

Objective of the scheme

- To produce the best quality Polwarth type rams in the Falkland Islands.
- Best-Practice principles will be used to identify the best animals to progress the characteristics of members' sheep that make members money!
- Breeding objectives will be reviewed regularly by all members, but the following general principles are believed to be appropriate to start with;
  - Breeding ewe flock fibre diameter of 22 to 23 micron with desire to slowly reduce it further
  - Clear faces
  - Increase bodyweight and frame size
  - Improve reproduction rate and fertility
  - Maintain/slowly increase fleeceweight
  - Reduction/elimination of pigmentation
  - Produce quick growthy lambs mainly for the hogget market
  - Surplus rams produced from the scheme above members 1:5 allocation would be of

fered for sale to members before being offered to the general public

If you are at all interested in helping to secure the future of the Polwarth breed in the Falkland Islands and in advancing your own Polwarth sheep at the same time, do not hesitate to call. It is firmly believed that if we all work together on this project, we can achieve so much more for the Polwarth sheep breed than by working alone!

Note - you do not need pure Polwarth sheep to be involved, but rather a willingness to contribute your best available ewes and a desire to progress towards Polwarth type dual purpose sheep.

THE HEALTHY HOOF

By Joe Hollins

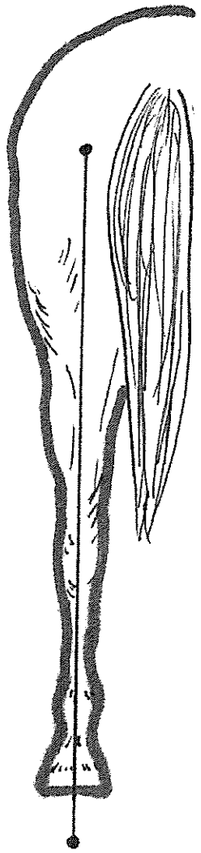


Fig. A

1834. Darwin, the great naturalist, is visiting the Falkland Islands on HMS *Beagle* with Captain Fitz Roy. Observant of every detail as ever, he says of the resident horses that: 'From the softness of the ground their hoofs often grow irregularly to a great length, and this causes lameness'. Nothing's changed!

The problem is twofold: the soft ground minimises wear, and the wet, acid peaty soils leach out the protective oils in the hoof. The result is an excessively hard but brittle hoof that elongates, especially at the toe. This acts as a lever, strains the flexor tendons (at the back of the foot), alters the whole axis of the foot, is prone to splitting (sandcracks), and provokes long term complications such as 'sidebone' (a hardening of the cartilages or 'wings' above the heels) and 'ringbone' (bony thickening above the hoof and below the fetlock). It is probably true to say that without corrective trimming most - if not all horses - in the Falklands will develop problems in time. It's the nature of the territory and not really their natural environment. The best defence against these complications is prevention, and it helps to have a basic understanding of what the hoof is all about.

Some horses are born with, or develop poor conformation. It should be possible, when viewing a limb from in front or behind, to visually draw a vertical axis straight down through the centre of the limb from the hip or shoulder to the middle of the toe (Fig. A). Some horses are base wide or base narrow, toe in or toe out, with a number of variations on the theme. They will have abnormal hoof conformation anyway and are beyond the scope of this short article.

Given a normal conformation, how should you treat the hoof to keep it healthy?

First a little about the hoof. The hoof is a fantastically evolved structure. Look at the middle finger on your hand and curl back your other three fingers and thumb, then plant that finger tip vertically on a table. That one finger simulates a horse's leg, the nail a horse's hoof. Extrapolate that to your other hand and the middle toes on your feet, then add maybe 500kgs (get out the beers and chocolate!). The nail has evolved into an enclosing case to distribute the load and disperse the concussion up through the limb.

The horse's hoof consists of a wall, extending from the nail bed (the coronary band) to the

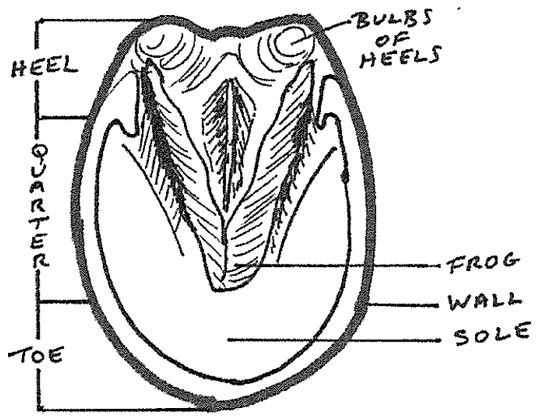


Fig. B

ground; a concave sole which should not touch the ground except where it joins the wall; a pair of bulb-like heels; and in the centre of the sole, a soft triangular frog (Fig. B). The frog does make contact with the ground, and distributes the load and impact up into a spongy structure called the digital cushion, very much like hydraulic suspension. The relationship of these structures and the curvatures and angles are an evolutionary masterpiece of engineering. Alter the angles and the relationship fails, with the result that the 500kg mass pressing down from above causes progressive damage. The inevitable result is lameness. The plan then, given a horse with good conformation, is to pare the hoof to keep it that way.

A few facts to broaden the knowledge. The hoof grows at about 6mm a month from the coronary band, and keratinises and hardens the further down it goes. Hence from the band to the toe represents 9-12 months, from the band to the heels about 6 months. It also means that the heels are younger softer horn. In colder climates - in other words here! - it may be slower.

The variation in hardness between the different parts is not just due to the amount of keratinisation, but the water content, which is as follows: the wall 25%, the sole 33%, and the frog 50%. The water content is retained through natural oily secretions preventing desiccation, and gives the hoof its pliability. If it dries out, as it does here because of the leaching of the oils, the hoof becomes harder, hence it overgrows. Overgrowth here is already encouraged by the soft terrain, so this is, as the Americans would say, a double whammy. It gets worse. The overgrowth has a splaying effect on the wall of the hoof, and because the hoof is drier, inflexible and brittle, this encourages splitting or 'sand cracks'. At the same time the overlong toe exerts a tremendous lever effect and in the long term damages the heels, tendons, cartilages and joints, and causes lameness and a poor gait. A set of vicious circles.

Moisture then is the key and the Falklands have a real problem with hoof desiccation. The treatment, for that favoured horse you want to bring on, is oiling the hoof, ideally daily. Oils to use: fish oil, olive oil, proprietary hoof oil - or even lanolin (a prize for the first person who trains their pet lamb to give the horse a rub down each morning!).

Trimming is not as simple as it sounds. How much you should trim depends on whether the horse has a permanent poor conformation, or just an overgrown hoof. The latter is correctible; the former may be worsened by attempts to correct. As a guide, if the horse has a broken foot/pastern axis, then altering the hoof may well normalise the conformation. If the horse has an unbroken foot/pastern axis and the angle is wrong, then trying to correct the angle by altering the shape of the hoof can cause further damage (Fig. C). Trimming an overlong toe though always

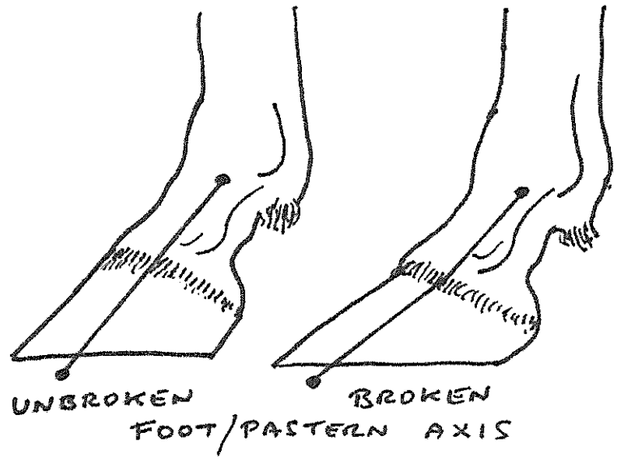


Fig. C

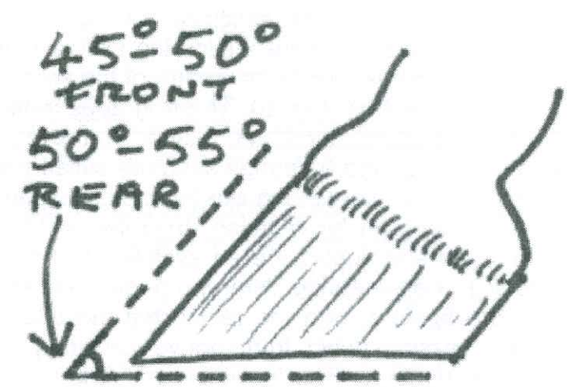


Fig. D

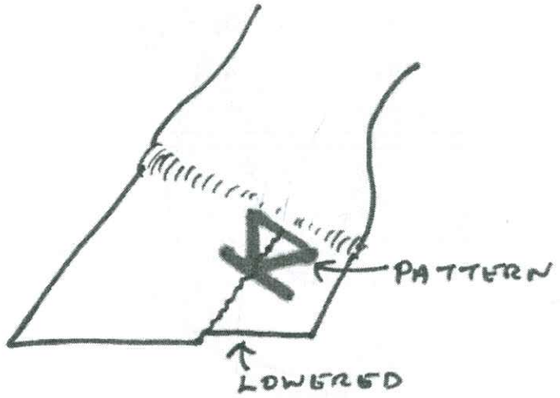


Fig. E

helps by reducing that leverage effect.

If it is just an overgrown hoof, then it is a question of not only trimming the toe but rasping down the sole to alter its angle to the ground. As a guide, the front toe angle should be 45°-50°, and the rear toe angle 50°-55° (Fig. D). Use a protractor to make a simple cut-out to help you measure. Lowering the sole can be hard work; a traditional hoof knife and horse rasp will do, or even better is a Surform, which acts like a cheese grater. Large Surforms require an extra pair of hands, but a small one can be held in one hand and makes swift work of the hoof material.

Finally sandcracks, a common complication of the brittle overgrown hoof. Cracks will often bleed, become infected and cause lameness. Here they tend to be of the type that extends upwards from the sole towards the coronary band (nail bed). Once they have reached the band, they become harder to deal with and may create a permanent flaw. The key is to try to stop them and get them to grow out. Overseas, supportive shoes with toe clips are used to finalise treatment. That's not going to happen here. However, 2 things can be done quite readily: lowering the hoof wall, and scoring across the crack.

The cracks occur in three areas: the toe, the quarter, and the heel. A toe crack should have the hoof wall where it makes contact with the ground trimmed away 2cms deep on both sides of the crack. This relieves the pressure on it. In addition a pattern should be burnt or cut across the top of the crack to limit its extension. A quarter crack and a heel crack should have the wall lowered only to the rear of the crack and where there is room, a pattern cut in (Fig. E).

So, a basic guide to the healthy Falkland hoof is: trimming, oiling, and tackling the sandcracks. It's all a question of shutting the stable door before the horse has bolted.

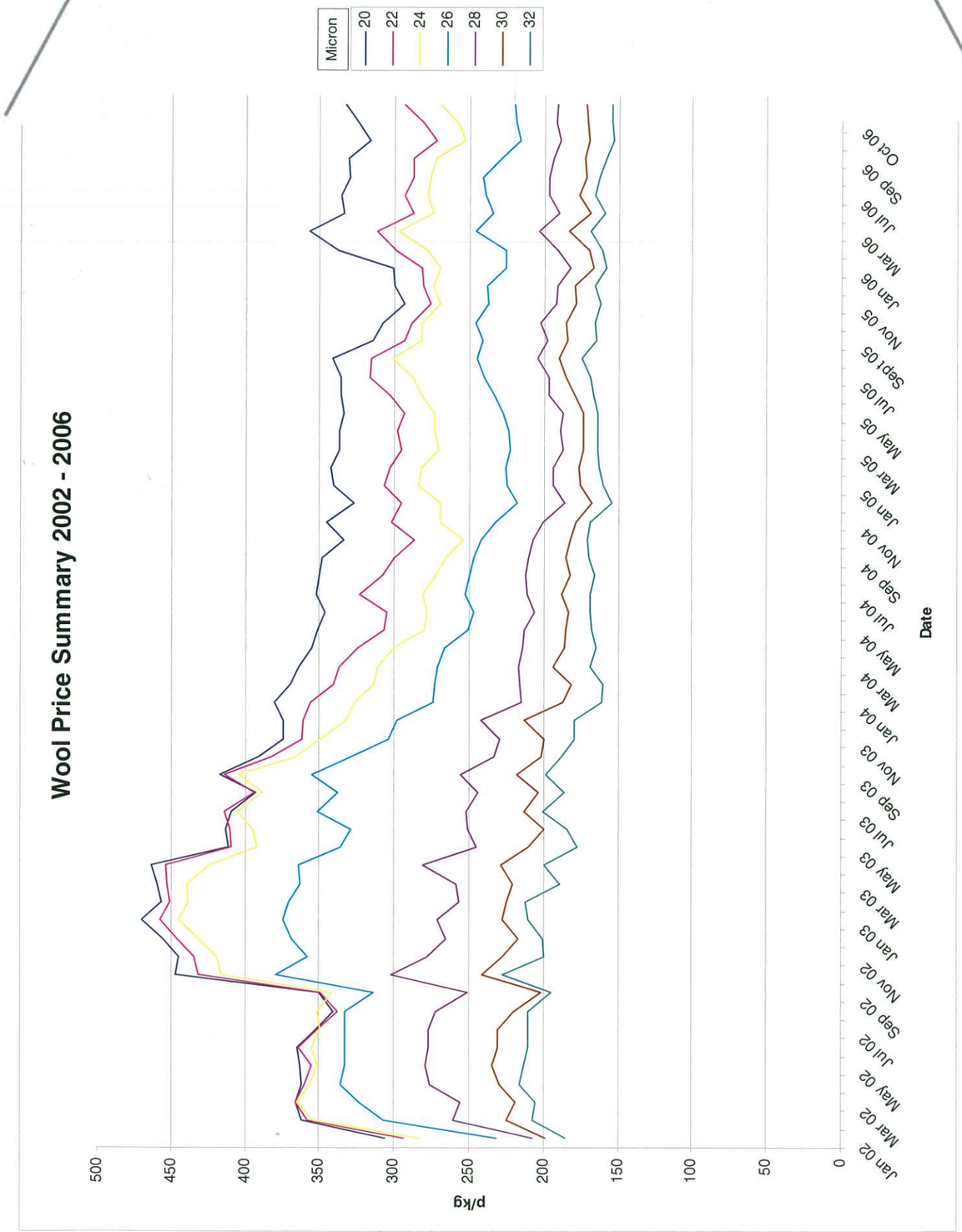
From Bold Cove Farm

RoboCan……For those who have been asking for refills etc; stocks are now available. Please contact me on tel: 42178 or email: fbc@horizon.co.fk Alternatively contact Amanda on tel: 21823 or email: 21823@horizon.co.fk

Branding Fluid……I have a small qty arriving in December, red or orange. Please give me a call for prices.

WOOL PRICE TREND OVER TIME

Based on weekly DOA Wool Reports



MANAGED GRAZING TRIAL POSTER FROM FARMERS WEEK

Wineglass Station Managed Grazing Trial

Bobby Short

Trial Details:

- Size of site: 1025ha (summer341ha, winter 684ha)
- Date established:10th November 2004
- Type of camp: White Grass, Christmas Bush with a few small valleys
- Fencing: 2– strand and 1-strand electric
- Number of sheep: 10/11/04: 793 Hoggets and Shearlings
  24/03/05: 991 Hoggets and Shearlings
  8/11/05: 940 Hoggets and Shearlings
  20/3/06: 842 Hoggets and Shearlings
  10/5/06: 895 Hoggets and Shearlings

Aims of the Trial:

- To increase body weights and maintain them through the winter
- To encourage wider grazing habits

Management:

- Both summer and winter paddocks have a 36 day rest period
- This allows sheep to be moved approximately every 3 to 5 days in the summer paddocks and every 15 to 20 in the winter paddocks—depending on their size

Observations:

- Losses dropped from average of 22% to less than 8%
- Sheep much easier to handle
- System allows for improved husbandry

Setbacks:

- Solar panel energizers not 100% reliable

Essentials of Managed Grazing:

- Needs to be monitored well

Future:

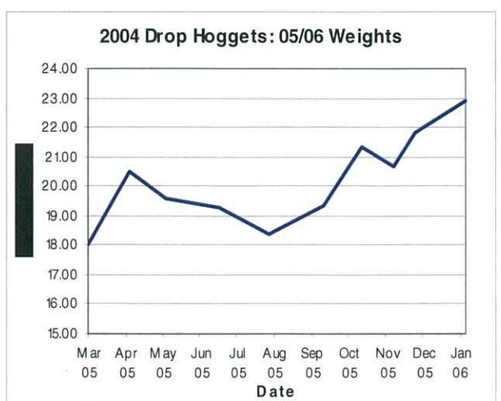
- To have all of Wineglass Station on the same system

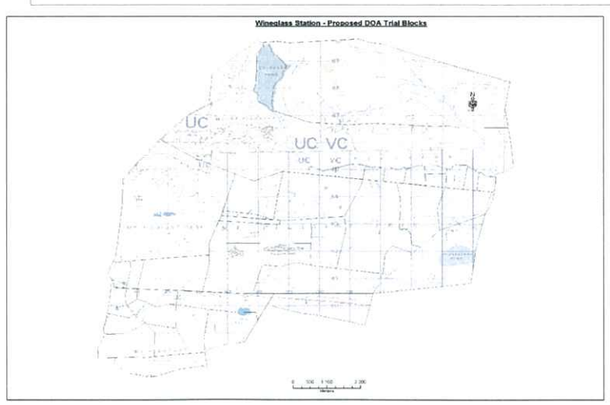
Summer Grazing - recovery period 36 days

Paddock	ha	grazing days	hrs
1	26	3.04	73
2	34	3.96	95
3	32	3.72	89
4	40	4.68	112
5	40	4.68	112
6	19	2.2	52
7	32	3.72	89
8	39	4.56	109
9	40	4.68	112
10	39	4.56	109

Winter Grazing - recovery period 36 days

Paddock	grazing days
East camp 6 (196ha)	15
Middle camp 7(265ha)	20
West camp 8 (223ha)	17





Wool Price Indicators

By Neil Judd

In an attempt to increase the usefullness of wool price tracking for farmers, the DOA has developed three new price indicators. The indicators represent the average clean price per kilogram for fleece wool in a particular micron range. As shown, the indicators represent price movement for fine wool (average of 19, 20 and 21 micron fleece wool lots (FWI)), medium wool (average of 22, 23, 24 and 25 fleece wool lots (MWI)) and broad wool (average of 26, 28, 30 and 32 micron fleece wool lots (BWI)) over the last 12 months.

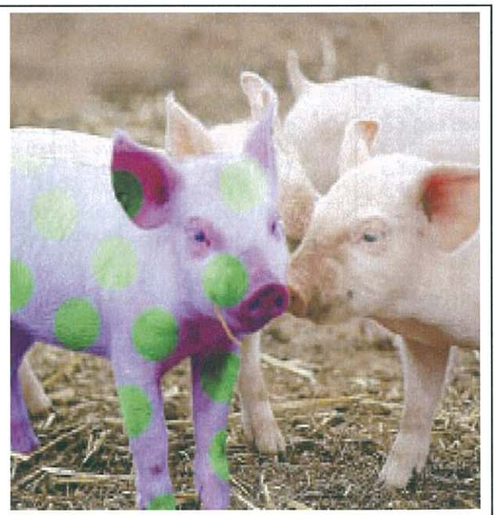
It is hoped that these Falkland Islands Indicators will help farmers identify price movements that occurred in the wool market over the last year and to assist with planning for the future.

Seen anything strange lately?!

Don't ignore it..... or shoot it

Call the Veterinary Section on 27366

ACTIVE SURVEILLANCE IS OUR BEST DEFENCE



DOA ENVIRONMENTAL DATA LOGGERS

By Peter Johnson

The DoA have recently acquired four environmental data loggers that will be used to support data coming from current and future trial sites around the Falklands.

Environmental data logger set up behind the DOA

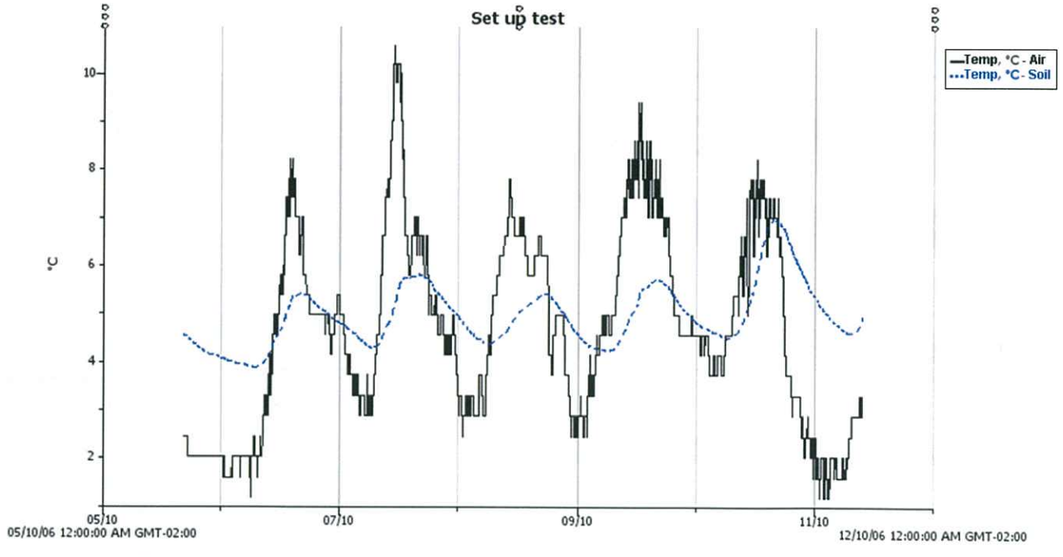
The environmental data loggers are made in the United States and come with a range of sensors and probes. The configuration we have purchased can record wind speed, wind direction, rainfall, air temperature, humidity, soil temperature at 2 depths and soil moisture.

All of this information is automatically logged in the data-logger which runs off 4 AA batteries and lasts for up to 12 months. The data can be collected every second, but we have set them up to record every 10 minutes, to give a good idea of how things are changing through the day. Once the data is recorded, it can be stored for up to 12 months.

To download the data, you simply plug in a cable from a laptop and it downloads into graphs and tables. This graph is of air temperature and soil temperature that was recorded at the back of the DoA office over the last week – just so we know that the equipment is working!

The data will be used in a number of ways, but particularly to link data collected about plant growth from grazing and management trials with climatic data such as rainfall, soil moisture and soil temperature, all of which have a huge influence on plant growth.

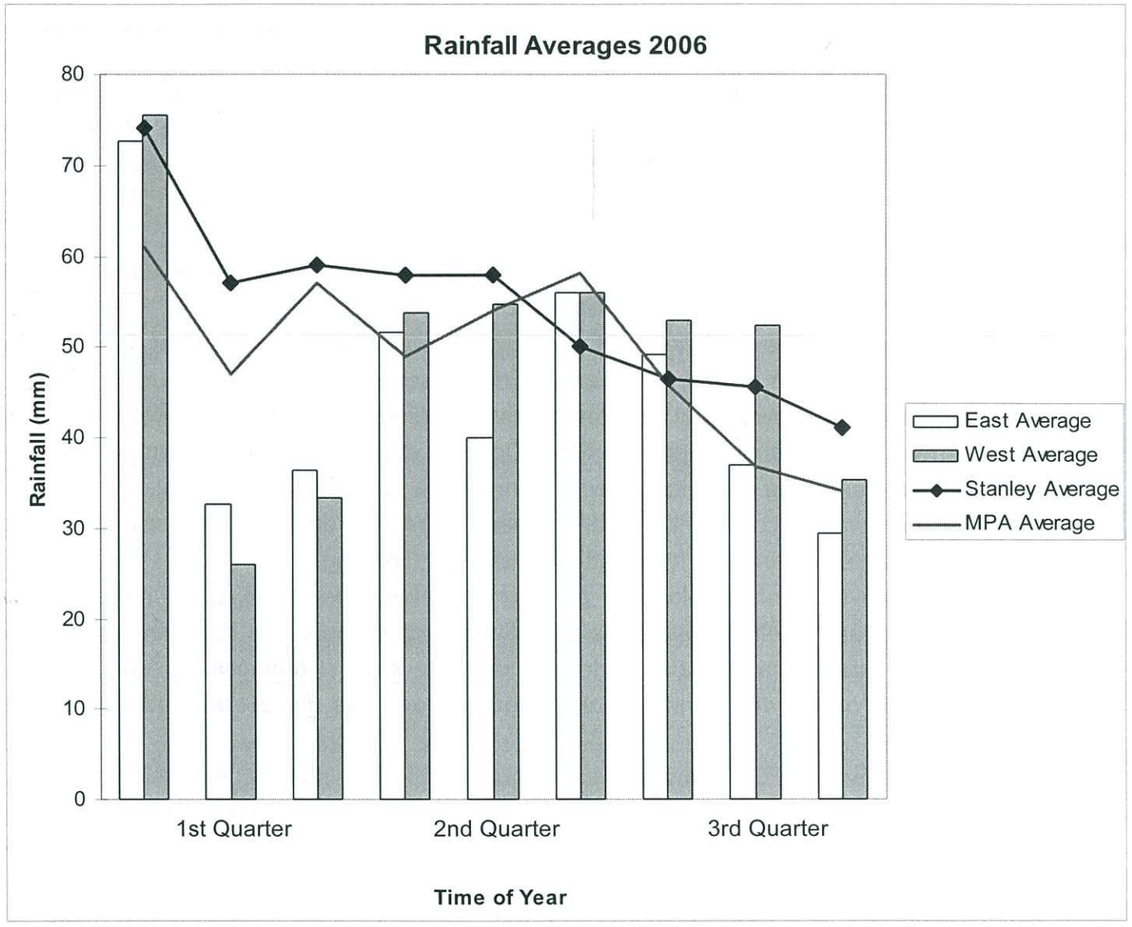
Over the coming months, once we have set the environmental data loggers up at the trial sites, some of the data that they collect will be published in the Wool Press.



Example graph produced by information collected from the environmental data logger

RAINFALL AVERAGES

By Siân Ferguson



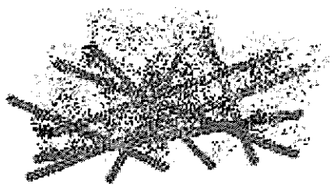
REMEMBER, REMEMBER THE 5TH OF NOVEMBER

By Siân Ferguson

Remember, remember the 5th of November... How many times throughout your life have you heard that rhyme? We all know that Guy Fawkes was trying to overthrow the government by blowing up the Houses of Parliament and we celebrate this with fireworks and a bonfire, served with a topping of a home-made Guy. But how much do you really know about this very traditional English celebration which started 401 years ago?

10 Things you should know about Guy Fawkes and the Gunpowder plot!!

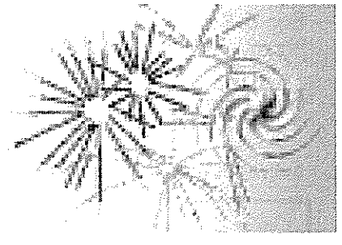
1. Those behind the plot were a group of Roman Catholic conspirators opposed to the Protestant King James I (Kings James VI of Scotland).
2. Guy Fawkes was not the ringleader of the group, but was placed in charge of executing the plan because of his military experience as an English soldier.
3. The intention was to blow up not only members of Parliament, but also the House of Lords, Kings James I and his family during the State Opening of the House of Parliament.
4. There were originally five conspirators who planned the 1605 Gunpowder Plot.
5. The conspiracy was discovered by an anonymous letter sent on 26th October to the Catholic Lord Monteagle warning him not to attend the State Opening.
6. The actual uncovering of the plot took place on 4th November 1605, when the suspicious Lord Monteagle and a fellow Lord made an initial search of the vaults beneath the House of Lords, uncovering wool and coal provided to cover the kegs of gunpowder. A midnight raid then took place on the 4th, during which the gunpowder was discovered and Guy Fawkes arrested.
7. Over the next few days, Guy Fawkes was tortured (following special permission granted by the King) until he named his fellow conspirators, who were all captured by 12th November.
8. All but one of the men pleaded not guilty to the charge of high treason, they were all convicted and sentenced to death.
9. On 31st January 1606 the men were taken the Old Palace Yard in Westminster were they were hung, drawn and quartered (except Guy Fawkes who cheated this fate by jumping from the gallows and snapping his neck).
10. On 5th November 1605, London celebrated the defeat of the plot by fires and street festivities, with children making 'guys' equipped with grotesque masks to be burnt on the 56th November bonfire and the letting off of fireworks- a tradition that is still carried on today.



Remember, Remember the 5th of November,
Gunpower, Treason and Plot.
I see no reason why gunpowder, treason
Should ever be forgot.

Guy Fawkes, 'twas his intent
To blow up king and parliament.
Three score barrels were laid below
To prove old England's overthrow.

By God's mercy he was catched
With a dark lantern and lighted match.
Holler boys, holler boys, let the bells ring
Holler boys, holler boys, God save the King.



GUIDELINES FOR SUBMITTING WOOL SAMPLES FOR MICRON & % YIELD TESTING

- Provide at least 50g of sample in order to do micron and % yield testing
- Select mid-side samples as this gives the best overall average micron of the sheep
- Use permanent marker pen on the outside of the individual bags of samples to indicate the tag number and where necessary total fleece weight (needed for yield testing for clean fleece weight). Pieces of paper put in with samples are more likely to get lost and delay the general process of testing
- If you choose to use pieces of paper in with the samples, please use pencil as this is less likely to run if moisture gets in
- Ensure the tag number and fleece weight is easily distinguished from each other
- Underline digits that may get confused if the number was read the wrong way up e.g. 6 and 9
- The best bags to use to hold wool samples are transparent zip 'n' seal bags used for freezer food. Please avoid tying knots in the bags where possible
- All results are sent by e-mail where possible. If this is not convenient please state that you would prefer the results to be faxed or posted. Please leave a fax number.
- **All samples sent in should be accompanied by an Agricultural Request Form, which is required by the DOA before samples will be processed. Samples and forms should be marked for the attention of Siân Ferguson.**

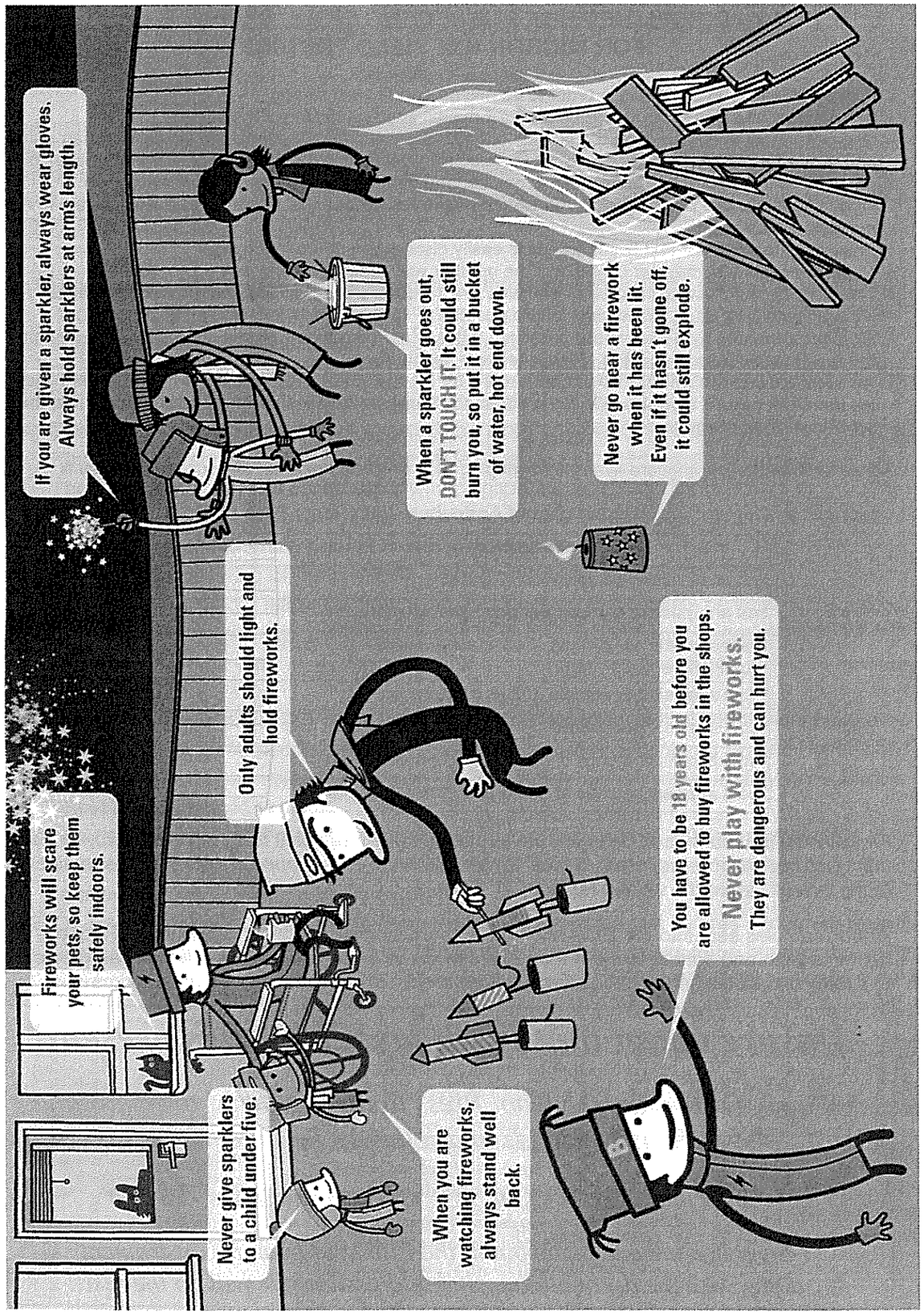
Agricultural Request Forms are available by ringing Siân on 27355 or email sferguson@doa.gov.fk

Department of Agriculture Laboratory Fees

Procedure	Fee
Soil analysis per sample (N,P,K and pH)	£10.00
Soil analysis per sample (per additional element)	£2.00
Plant analysis per sample (Proximate analysis – dry matter, protein, fibre, Ca, P, Mg)	£20.00
Wool analysis per sample (Fibre diameter only)	£3.00
Wool analysis per sample (Fibre diameter & yield)	£5.00
Wool analysis batches of 650 (Fibre diameter only)	£2.00
Wool analysis batches of 650 (Fibre diameter & yield)	£3.00

Please note that each farm does not have to send in 650 samples to qualify for the lower charge, they just have to be prepared to wait for the DOA to collect approximately 650 samples from farms overall before the wool is tested.

All soil samples sent into the DOA should also be accompanied by an Agricultural Request Form sent into Siân and if there is more than one sample to be tested, please mark all samples clearly to avoid confusion when you receive the results back.



FIREWORKS CODE

- Only buy fireworks marked and that meet with current British Safety Standards (BS7114).
- Keep fireworks in a closed box, in a cool dry place.
- Make sure you notify the public that you are intending to set off fireworks by informing FIRS of the time and the place at least 3 working days in advance.
- Only category 1 (sparklers) and category 2 (garden) fireworks may be used within 4 miles of Stanley. Category 3 (display) fireworks may only be used in organised public displays, with the prior permission of the Government Secretary.
- Fireworks must not be set off in any street or road.
- Make sure you have the landowner's permission to set off fireworks on their land.
- Fireworks must not be set off, or bonfires lit, on public land, including beaches, without the prior permission of the Government Secretary.
- Do not set off fireworks in or in the proximity of sensitive areas e.g. nature reserves and beaches with breeding animals.
- Unpack with great care and well away from flame or flammable material.
- Read the instructions on the firework and do what they say.
- Make sure the wind and display are angled away from spectators.
- Do not set off fireworks in very windy conditions.
- Be careful when setting off fireworks in gardens and if possible set them off well away from any building, fences, trees and hazards.
- No fireworks must be set off within 200 metres of any bulk fuel depot.
- No fireworks to be set of within 60 meters of Stanley Services service station, Airport Road.
- Ideally only let fireworks off one at a time.
- Light them at arm's length, using a taper.
- Stand well back.
- Never go near a firework that has been lit. Even if it has not gone off it can still explode. Do not approach for at least 30 minutes.
- Do not drink alcohol when setting off fireworks.
- Do not smoke when handling fireworks.
- Only adults should light or hold fireworks.
- Children must always be supervised.
- When you are watching fireworks stand well back.
- Never put fireworks in your pocket or throw them.
- Never play with fireworks, they are explosives.
- Keep pets indoors with curtains closed; fireworks terrify animals.
- Have consideration for your neighbours.
- Do not set off fireworks before 07.00 in the morning or after 11.00 at night. There are only two exceptions – on the 25th December fireworks must not be set off before 07.00 in the morning or after midnight, and on the 31st December fireworks must not be set off before 07.00 in the morning or after 01.00 on the following morning.
- Gather spent fireworks using tongs or some other suitable tool. Wear strong gloves and use a torch.
- For reasons of safety always try to go instead to a properly organised public display.

SPARKLERS

- Store sparklers in a closed box and in a cool dry place.
- Light sparklers one at a time, and always wear gloves.
- Never give sparklers to a child under 5.
- Always supervise children.
- Never hold a baby or a child if you have a sparkler in your hand.
- When your sparkler has gone out don't touch it - put the hot end in a handy bucket of water.
- Beware – sparklers can reach 15 times the boiling point of water.
- Avoid using sparklers where it is crowded.
- Do not dress children in loose or flowing clothes, they may catch light.
- Show children how to hold sparklers - away from their body and at arm's length.
- Teach children not to waive sparklers near anyone else or run whilst holding them.

BONFIRES

- Bonfires can get out of control if you are not careful. Do not light them if it is too windy.
- Build your bonfire well clear of buildings, sheds, fences and hedges.
- If you have to use flammable liquids to start the fire keep it to the bare minimum, and use Kerosene or Diesel and never burn dangerous rubbish like aerosol cans, paint tins, foam furniture or batteries.
- Keep a bucket of water or a hose-pipe handy.
- Before you light the bonfire check that there are no children or animals hiding inside and that they are a safe distance away.
- Do not leave bonfires unattended. An adult must supervise it until everything has been burnt. If the bonfire has to be left, damp it down with water.
- If you are having a fireworks display if you can light the bonfire afterwards so there is no risk of sparks or heat from the fire setting off the fireworks.
- Never put fireworks on the fire.

IN AN EMERGENCY

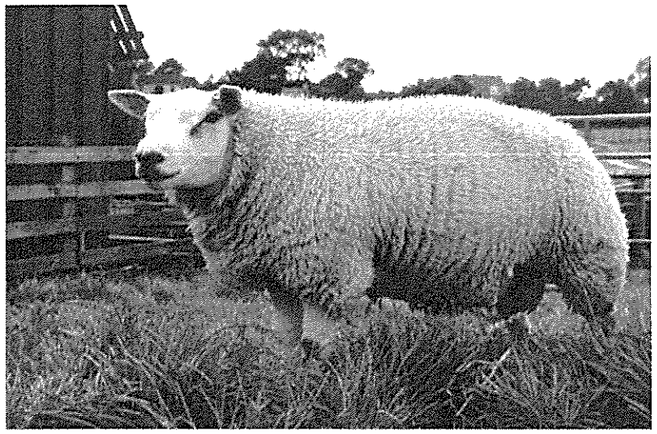
- Cool the burn or the scald with cold water for at least 10 minutes.
- Cut around material sticking to the skin – don't pull it off.
- Don't touch the burn or burst any blisters.
- Cover the burn with clean, non-fluffy material – cling film is ideal – to prevent infection.
- If clothing catches fire, get the person to stop, drop to the floor, and roll them in heavy material like a curtain.
- Get advice from your doctor or the hospital.

SHEEP BREEDS - POSTERS DISPLAYED DURING FARMERS WEEK

TEXEL

History

- Originated on the Isle of Texel off the north coast of Holland
- Original breed was then crossed with Lincoln and, to a lesser extent, Leicester and Border Leicester
- Texels are now firmly established as one of the principal terminal sires
- The breed today is a white - faced breed with no wool on the head or legs, characterised by a short, wide face with a black nose and widely placed, short ears with a nearly horizontal carriage and are very docile.



Adaptability

- Is very hardy and thrives under a wide range of environments

Production

- Ewes are durable, prolific, are excellent mothers with an abundance of milk
- Good growth with excellent conformation and carcass quality
- Rams are very active and fertile
- Texels produce a fleece of 3.5 to 5.5kg in the fibre diameter range of 32 to 34 micron
- Their outstanding features are their muscle development and leanness

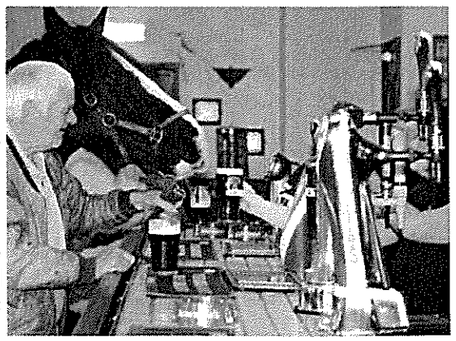
If you would like to contribute an article or recipe in the Wool Press, then please contact Siân Ferguson on telephone 27355, fax 27352 or email sferguson@doa.gov.fk

If you have something to share, then let us know!!

Submissions need to be in before the end of the month.
All contributions are gratefully received.

Why the long face?

Source: Ananova.com

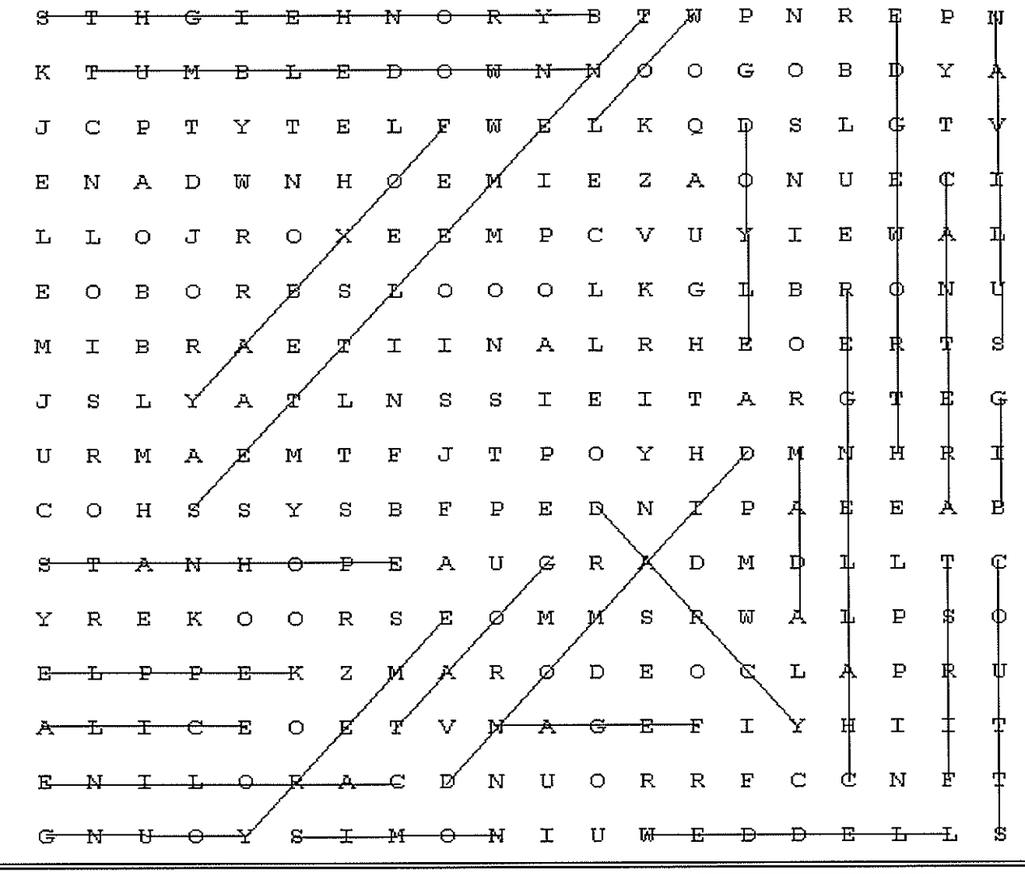


To most people embarking on a change of career is quite a big adventure, but one English publican got the surprise of her life when one of her regulars turned out to be a horse!!

Assuming local rumours surrounding the pub to be untrue, Jackie Gray was shocked when carthorse Peggy followed her owner into the Alexandra Hotel for her regular pint of John Smiths and pickled onion crisps.

For regulars, Peggy has become a novelty, having frequented the pub in Tyneside for years. Jackie says she is no bother at all, adding that Peggy is a proper lady!!

LAST MONTH'S SOLUTIONS

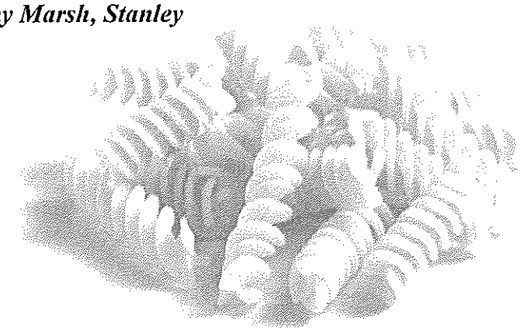


Pasta twirls with scallops and bacon

Provided by Sammy Marsh, Stanley

Ingredients:
4 lean rashers smoked back bacon
1 garlic clove crushed
2 leeks thinly sliced
1 x 7oz (200g) can tomatoes
¼ pint (150ml) white wine
6 large mushrooms diced
6oz (175g) scallops
40z (100g) dry weight pasta twirls

Serves: 4
Per serving:
205 Kcals/2 g fat



Method:
Trim all fat from the bacon and discard. Cut the bacon into strips. Dry fry the bacon in a pan until almost tender.

Add the garlic and cook for a moment or two. Add the tomatoes, white wine and mushrooms. Bring to the boil and simmer for about 8 minutes.

Add the scallops and continue cooking for a further 1-2 minutes until the mushrooms are tender and the sauce has been reduced. Scallops need only a little cooking, just until they become opaque (they are better undercooked than overcooked or they will become tough). In the meantime, cook the pasta according to the instructions. Drain well and stir into the sauce.

PUZZLE PAGE

Spot the difference!!

Can you spot the difference between these two engravings of the conspirators behind the 1605 Gunpowder Plot?

THE WOOL PRESS

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Telephone +500 27355 Fax +500 27352 sferguson@doa.gov.fk

In this issue...

Edited by Siân Ferguson
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Produced by the Department of Agriculture, Falkland Islands Government

EDITORIAL

The longer sunny days are a reminder that wool is accumulating in shearing sheds and farmers need to consider how to transport and sell wool this season. Neil Judd's succinct article on the subject shows how many choices there are now that there is a double dumping machine installed on FIPASS. Neil's chart on sales differential is food for thought as well. For farmers on the East with wool heading for the warehouse on FIPASS, please note Lucy's useful proposals for stacking wool this season.

Please read SVO, Vic Epstein's article on a dog dosing reporting system. His paper was discussed at the last Agricultural Advisory Committee meeting and it was agreed that voluntary reporting would be introduced from next dog dosing day (**20 December**) for Camp dog owners. All the experts consulted as to why hydtidosis is still persisting in small numbers of sheep here in the Falklands after years of dog treatment state that non-compliance has to be the most likely cause. We would like to eliminate this from the list of possibilities so Vic is asking that to prove to the experts all farmers are compliant, they report that they have dosed their dogs. This can be done by simply leaving a phone message at the DoA. **We would be very grateful if all Camp dog owners would support the scheme.**

Another paper presented at the last AAC meeting concerns TB testing in cattle. Many farmers are keen to develop a broader beef industry, selling to wider local markets and then possibly overseas. To do this there has to be disease monitoring data as early as possible to provide evidence of our disease status. There is much to discuss on this subject so let's have your views for the next committee meeting.

I was interested to learn from Joe Hollins' article, "Lumps and Bumps" the problems that stray cats cause with the spread of disease. I was aware that they cause the transmission of toxoplasma but Joe explains in his article that they are also responsible for the spread of a disease called Sarcocystis. Another good reason for controlling any feral cats on your farm.

Vikki Lee has joined the team this month and I am pleased to see from her introductory article that we are working her hard!

All good wishes with lambing, calving, shearing and of course.....Christmas and have a prosperous New Year.

Best regards,

Phyl Rendell
Director of Minerals & Agriculture

HOW DO I RANK MY SHEEP? USING A SHEEP INDEX!

By Peter Johnson

The DoA has created a programme that can provide you with a simplified sheep index and ranking sheet for your animals on your farm. This information can be used to make selection decisions for both Rams and Ewes and is vital for ensuring that you get the best animals to do the job you want.

What do I need to have my sheep indexed?
You need a number of things, the most important being a breeding objective of what you are aiming to achieve with your sheep in the medium to long term. You also need objective data on individually tagged animals such as body weights, greasy fleece weights and fibre diameter for that sheep.

What is my breeding objective?
Breeding objectives are different for each farm business. They dictate what emphasis you wish to place on your breeding, whether it be for micron, wool weight, bodyweight or a combination somewhere in between. The DoA has 16 basic indexes that span the range that you can choose from with advice available to get the right one for you. Breeding objectives need to be set for the medium to long term, as chopping and changing year-in year-out can lead to your genetic trend going round in circles.

How do I get the other information I need?
You measure it! You weigh your animals to find out how much they weigh, you get your samples tested to see what micron their fleece is, and you weigh their fleeces at shearing time. Yes it does take effort, but if you want to make genetic gain, you need to measure what you have!

What happens when I have my information and my breeding objective?
You send it in to the DoA or I come out and discuss it with you and we do the calculations. I have a Microsoft Excel based program that will crunch the numbers and put the relative weightings on the different traits according to your breeding objective. Although it is a complex calculation, it is quick and easy to run and a list of the sheep with their tag numbers, rankings and index score can be printed off to use down in the yards when you are going through your sheep.

I'm still not sure what breeding objective suits my business?
We can discuss this at length by looking at historic market prices and trends for both wool and meat, use the gross margin model to get a few numbers for each scenario and then run 2 or 3 different breeding objectives through the index calculator to see what animals perform best for different breeding objectives.

Once I have the rankings, is that the end of it? Do I just take my top twenty sheep?
No, no, no! The best objective measurements need to be used in conjunction with some traditional classing. One way to use this tool may be to test a group of say, ram hoggets for fleece weight, fibre diameter and body weight. We can do the calculations based on your breeding objective then draft off say the top 50 animals from the group based on the index and go through them to select the 20 replacement rams that you want using *both* the **figures** and what you **see** before you in the animal. The highest ranking animals may not be the best overall when you look at the other traits you consider important, but are not part of the index.

I'm interested, what other information is available?
I have more information on the specifics of the selection indexes if you want to know more about them. If you think you would like to have some of your animals indexed, get in touch and I will go through the process with you. If you would like any assistance with deciding breeding objectives, planning the testing/weighing of animals or selection advice, please contact me at the DoA.

Next Dog Dosing Day (Droncit)...
...Wednesday 20th December

PROPOSED DOG DOSING REPORTING SYSTEM

In the AAC meeting on 15 November, the following proposal was discussed.

The committee decided that dog owners in camp report to the DoA that their dogs have been pilled after dog dosing day. The reporting system will be implemented from next dog dosing day ie 20 December 2006 and continue for a trial period of 12 months

All camp dog owners please advise that their dogs have been pilled by:
Telephone Veterinary Section: 27366 (if after hours leave message)
Email: imports@doa.gov.fk
Fax: 27352

If one person is responsible for an entire community only one phone call is necessary.

Please advice by the end of the week in which dog dosing day occurred.

When leaving a message please simply state:

1. Name
2. Location
3. Number and names of dogs
4. Actual day pills were administered

If you would like to raise any issues please contact Ian Hansen, Richard Stevens, Terrance McPhee or Justin Knight.

Introduction:
Advice received from experts overseas always comes back that 'non-compliance' i.e. the dogs not being restricted from offal and/or not receiving their tablets is the primary suspect cause of non-eradication
All other avenues of persistence of tapeworm infections and hydatidosis are being investigated
I have undertaken some small surveys last dog dosing day. They indicate

- Only 5 (out of) of the 'registered' dogs are fed camp killed meat and visit camp. ie 5/59 dogs could possibly be spreading hydatids or bladder cysts. These 5 dogs are wormed every 6 weeks by Sarah so the chances of registered dogs being responsible is even less
- 8 dog owners had to be reminded to present their dogs for treatment.
- I can only assume camp dwelling dog owners would have the same 'forgetting' rate.
- There are 495 dogs in camp of which 481 are fed camp killed meat.
- These dogs are all capable of spreading hydatids and bladder cysts
- It they are not pilled every 6 weeks this increases the chance of transmission
- It was proposed that if all camp owner advise the DoA by any means (phone/fax/email) after the dog dosing day that their dogs have been treated that this may be a good way of ensuring compliance and getting rid of hydatidosis and bladder cysts

AAC meeting of 15 November 2006

PROPOSED DOG DOSING REPORTING SYSTEM

1. Purpose

1.1 Discussion paper on the implementation of a 'dog dosing' reporting system for camp dogs (ie unregistered dogs).

2. Recommendations

2.2 Delegates of the AAC discuss the concept of a 'dog dosing' reporting system for camp dogs with their constituents (RBA members, farmers) and other interested parties. Following consultation, advise the DOA whether there is support for the introduction of the system.

2.3 Delegates report back to the SVO before the next AAC meeting. If the proposal has support a paper can be prepared and presented at the next AAC meeting. If agreed, the process of implementing any necessary changes could be started immediately.

3. Background

a. Current situation

3.1 Hydatid cysts were seen in 5 sheep, coming from 5 unrelated properties processed at the Sand Bay Abattoir (SBA) between January and May 2006.

i. All camp dogs (unregistered dogs) are 'pilled' every 6 weeks with worm tablets for the prevention and ultimate eradication of hydatidosis in the Falkland Islands.
ii. This system has been in place for over 30 years.
iii. Based on the life cycle of this parasite this disease should have been eradicated from the Falkland Islands many years ago.
iv. Camp dogs are fed mutton more frequently than town dogs and are more likely to be involved with the transmission of hydatidosis than town dogs.
v. No recording or reporting system is currently in place to know if 'pilling' has or has not been carried out for camp dogs. It is an honour system.
vi. No recording system is in place for changes in the dog population in camp as these dogs do not require registration.
vii. Registered dogs are 'pilled' by the Veterinary services every 6 weeks either directly or under supervision.
viii. Many times the DoA staff have to ring parties that have not presented their dogs as required, indicating there is not 100% compliance without reminding

b. Possibilities on why hydatidosis persists in the Falkland Islands.

i. Non- compliance ie dogs are not wormed and restricted from access to offal.
   - Overseas experts always have consistently stated that this as the most likely cause **or**

ii. There is a residue of hydatids in the Falkland Islands. This could be the fox.
   - This is currently under investigation **or**

iii. The strain of hydatids worm in the Falklands is unique and its life cycle is different to hydatids found elsewhere in the world.
   - This is currently under investigation **or**

iv. Introduction of new infections with the importation of new dogs into the Falklands. There are no wild dogs in the Falklands (let me know if I am wrong) and dog importation is under a protocol where it is 'pilled' before arrival **or**

v. The hydatids worm is resistant to the 'pills'.
   - Resistance has not been found anywhere in the world to-date

4. Proposed changes

a. Farmers report the dosing of all camp dogs to the Veterinary Services Officer (Sarah Bowles) by phone, fax or email on the day they are 'pilled'.

4.1 Advantages

- It would rule out 'non-compliance' as a cause of hydatids persisting.
- This will ensure compliance is maintained as non- reporting can be followed up by the DoA.
- This can help rule out non- compliance as a reason hydatidosis persists in the Falkland Islands.

4.2 Disadvantages

- Extra work for the DoA.
- Extra responsibilities and work for the camp dog owners.
- Other proposals may be made depending on the outcome of other investigations into hydatidosis so protocols may change in the future.
- Follow up may have to be done in the evenings and involve extra costs.
- It may have to be compulsory through legislation if compliance is low.

SELLING WOOL IN 2006/2007

By Neil Judd

A - Selling Options

Farmers in the Falkland Islands are faced with a number of options regarding the sale of their wool this year, as follows;

Option	Contact Person	Email
David Midgley Wools	David Midgley	david.wool@btinternet.com
Falkland Islands Wool Company	David Lambert	dlambert@blueyonder.co.uk
Falkland Islands Wool Marketing	Adam Holdsworth	adam@dbholdsworth.demon.co.uk
Falkland Wool Growers	Robert Hall	roberthall@falklandwoolgrowers.co.uk
Individual Farmers	Individuals	Individuals

It is clear that responsibility rests with each individual farmers to choose the agent/merchant to sell their farms' wool. Obviously many issues have an influence on this decision, as follows; relationship with the agent/merchant, money security, speed of payment, performance of the selling option relative to benchmarks and so on.

Once a farm has made the decision as to who is going to sell their wool this season, it is believed that a series of questions need to be asked quite quickly to help ensure that the whole process happens efficiently and effectively. Again, as follows;

1. Should wool be core-sampled in the Falkland Islands, if so all of it or just the main fleece lines?
2. What should happen to wool that is not core-sampled in the Falkland Islands?
3. For lots core-sampled in the Islands, what should happen after core test results are received?
4. Which freight company and which destination?
5. If using FIC service, freight based on weight hence there would not appear to be any advantage in double dumping any wool
6. If using SAAS freight service, should some of your wool be double dumped?
7. How will the merit of wool price offers be evaluated? For example, benchmark price compared to gross Bradford, net Bradford, gross Czech Republic, net Czech Republic, gross Chile, net Chile or maybe benchmark price compared to Net Stanley?

Due to the difficulty in comparing many different selling options and delivery destinations with different freight, commissions and other selling costs, the DOA recommends that farmers attempt to bring their wool price offers back to a 'Net Stanley' basis. By doing this, farmers will be able to compare offers from anywhere going to any destination on an equal basis.

The following hypothetical examples may help to explain the concept;

1. Wool Sold ex-warehouse Bradford

Gross Bradford price	250 pence/kg clean
Selling costs *(including core test in UK)*	20 pence/kg clean
Freight - Stanley to UK *(warehousing in UK)*	25 pence/kg clean
Net Stanley price banked	205 pence/kg clean

2. Same Wool Sold Delivered to Czech Republic

Gross delivered Czech Republic	258 pence/kg clean
Selling costs	20 pence/kg clean
Core test costs	6 pence/kg clean
(based on 8 bales at 70% yield & £65 per test)	
Freight Stanley to Czech Republic	27 pence/kg clean
Net Stanley	205 pence/kg clean

Note - these examples are **not real**, they are intended to try and demonstrate the principles only. Price offered may vary with destination, costs do vary between agents; selling costs should vary as to whether or not wool is core-sampled in the Falkland Islands or in the UK and freight costs depend on whether or not some of the wool is double dumped or no as well as where the wool is going.

All of these facts need to be considered - hence the point, **'Net Stanley'** price is considered a fair analysis of comparing prices when circumstances can vary so much.

FLEECE WOOL SALES RATING

By Neil Judd

Over the last few years the DOA has been working with farmers on wool marketing efficiency. The following table summarises the general results of this work to day;

Note - 'Net Stanley' is the basis of the scale. The difference between the benchmark price and net Stanley price achieved on the day of sale being the key (this is referred to as the sales differential).

FALKLAND ISLANDS FLEECE WOOL SALES RATING	
Sales Differential (p/kg clean)	**Sales Rating**
20 or less	Outstanding
20 - 30	Excellent
30 - 40	Good
40 - 50	Average
50 - 60	Poor
60 or less	Very poor

Note - Sales Differential equals benchmark price less Net Stanley price achieved.

One of the most important opportunities of using the DOA wool sales ratings system (including the concept of sales differentials) is that over a season, the ability exists for farms to compare their wool selling efficiency against other farms and also against alternative selling options. Surely such scrutiny is a good thing? Please do not hesitate to contact the DOA to discuss this service or if further explanation is required.

2007/2008 Dog Dosing Dates

Date	Drug
7th February 2007	**Drontal**
21st March 2007	Droncit
2nd May 2007	Droncit
13th June 2007	Droncit
25th July 2007	**Drontal**
5th September 2007	Droncit
17th October 2007	Droncit
28th November 2007	Droncit
9th January 2008	**Drontal**

West Falkland Ram & Fleece Show

The twentieth show will be held as usual at Coast Ridge shed on Thursday 28th December.

All the usual timings, classes and prizes.

See you all there!!

LUMPS AND BUMPS

By Joe Hollins

The idea of this article is to provide a brief guide to the commoner lumps or fluid filled cysts to be found in a sheep carcass.

Sarcocystis:
Not a very enthralling name, but most of you will have seen this and wondered what it is. Sarcocystis is a parasite, not a worm but a small multicellular organism called a protozoa, which relies on two hosts - a carnivore and a herbivore - to complete its life cycle. Around the world there are 4 main types to be found in sheep, the small or microcyst variety transmitted by dogs and foxes, and the large or macrocyst variety transmitted by cats. The good news is that the microcyst form is the type most likely to cause ill thrift and the Falklands have the macrocyst form (the fox populated islands are probably an unknown on this). The bad news is that the macrocyst variety is extremely common here. In the abattoir most carcasses showed signs of sarcocystis.

The Falkland variety, *Sarcocystis gigantea*, is large and readily visible to the eye, forming 1cm elongate cysts which resemble fat, overcooked rice grains. Fortunately these cysts generally do not affect the prime abattoir meat, unless they are aberrant, and are to be found almost exclusively in the tongue and the gullet/oesophagus (Plate 1) where they protrude from the surface.

The life cycle is an impressive multiplication process. Each cyst contains thousands of infective organisms. A stray cat finds a carcass, eats a cyst, and the thousands of organisms attach to the cat's gut lining. Within 2 weeks these organisms produce hundreds of thousands of infective oocysts in the faeces for several weeks. The oocysts are scattered on the pasture where they form spore-like organisms that can survive for many months, ample opportunity for a grazing sheep to ingest at least a few. Each ingested sporocyst migrates from the gut of the sheep into the tissues where it multiplies again for several generations. The offspring then migrate to the tongue and gullet, each forming a cyst and multiplying yet again to many thousands of new infective organisms. It is a life cycle that leaves little to chance, sheer numbers making it very successful. Sheep eventually become immune or they would be overwhelmed, but cats never do and go on linking the cycle.

Although the Falkland variety is considered non-pathogenic, it is actually open to question. Worldwide the research has not been done, and it is thought likely that heavy burdens are a contributory cause to ill thrift. Looking at the picture, it does not take a great deal of imagination to see that it probably does affect grazing and swallowing.

The abattoir findings confirm therefore that there is a massive stray cat problem in the islands. Stray cats are undesirable for many reasons: the destruction of birdlife; the transmission of sarcocystis; and the transmission of toxoplasma. Toxoplasma is the second commonest cause of abortion in sheep in the UK, and is prevalent here. It is a very similar organism to sarcocystis, and is transmitted to sheep by cats in the same way. The main difference is that cats tend to acquire it by hunting rodents. Control of stray cats is therefore beneficial to sheep farming, although difficult to achieve in Camp.

Boils:
'Boils' were covered in great detail before (Wool Press August 2006). Suffice to say that they are commoner in older sheep and affect about 10% of carcasses going through the abattoir. Although the majority are to be found in the external glands of the body, representing the drainage areas of infected shearing nicks, 50% of infected sheep will also have internal abscesses, sometimes deep within the meat. It is a major problem for the abattoir and meat exports, as well as for the animal on farm which may suffer from ill thrift and wool breaks. Not all abscesses are 'boils' as they can be caused by a number of other organisms, but the true mature 'boil' tends to be firm and have a characteristic onion ring pattern in cross section. The organism, Corynebacterium pseudotuberculosis, is hardy and persistent, but readily killed with disinfectants. Control measures for boils (see back issue) can be disheartening in their results, but don't give up. Even with full vaccination programmes it takes four years to see any difference. With no controls (in extensive grazing conditions) infection rates can reach 30% - so continue the battle!

Bladder cysts:
The widely recognised non-pathogenic bladder cyst is caused by a tapeworm *Taenia hydatigena*, or 'false hydatid'. This is a long tapeworm of dogs which infects sheep via dog faeces and grazing. Ingestion of the cysts when a dog finds a carcass completes the cycle. The cyst in the sheep is found almost exclusively attached to the outside of the lining, organs and membranes of the abdomen.

It is of particular interest though because it is considered by some authorities to be a good marker of effective hydatid control - both are tapeworms and rely on an almost identical cycle, and both are killed by the dog wormers. As there is a persisting albeit statistically small hydatid problem, and a high prevalence of bladder cysts, it poses many questions. True, it is probable that the life cycle is less than 6 weeks, but how are dogs getting access to the cysts to complete the cycle? And even if the life cycle proves to be 4 weeks (the DoA is undertaking a trial to try to establish this), the 6 weekly worming sessions should still decimate it. Its strength is a massive egg production in the dog, but how is it getting around to infect so many sheep? It is the sort of paradox that suggests there may be an unknown factor involved.

Hydatid:
There has been much written about hydatid. The most important thing is to recognise it (Plate 2). The life cycle of this small tapeworm (just 5-7mm long in the dog) is very similar to the bladder cyst. The abattoir found 5 confirmed cases of hydatid out of 33,000 carcasses, an incidence of 0.015%. This is a big, and therefore statistically significant or accurate sample. Island wide - ignoring age bias at killing - this may represent 100 cases. Cysts can vary in size from a gooseberry to a grapefruit, and most are to be found buried in the substance of the liver (often visible) or the lungs. They may be less obvious in the lungs because of the lack of contrast, so it is worthwhile having a closer look when they are removed. This may be of particular importance if you know you have sheep from the fox islands (such as Beaver or Weddell) - the cysts are long lived. A very small percentage can occur almost anywhere else, even in the muscle. So any large, opaque cysts are of interest.

Plate 1: Sarcocystis in the gullet

Plate 2: Hydatid in liver

Sheep measles:
This is yet another tapeworm, *Taenia ovis,* which relies on the dog/sheep relationship. It has a very similar life cycle to the hydatid and the bladder cyst, its strength being that each worm in the dog can produce ¼ million eggs per day. Generally sheep measles are seen as small pale multiple cysts within the muscle, most easily found in the jaw muscles, diaphragm, tongue and flaps. Each cyst is an infective tapeworm head. Cysts die relatively quickly (less than 1 year) but leave small gritty lumps in the meat. It is non-pathogenic, but clearly of great significance for the meat export industry. Fortunately it is less common as it has a relatively long life cycle and has been hit

hard by the 6 weekly worming programme.

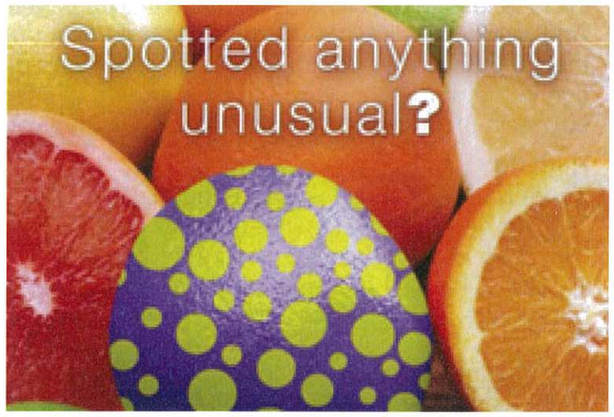
A plea:
Here at the Veterinary Service we love to see samples of what you are finding out in Camp. Please send them in ('boils' apart!) and at no cost to yourselves we will investigate them. There is a stigma attached to having a hydatid on your farm, but there shouldn't be. We will not assume that you have been non-compliant with worming. The cysts can be old and inherited from brought in sheep, and many farms are over-crossed by other farms' stock and dogs during gathering. Please send anything interesting or suspicious in. There are many other types of benign cysts and occasional tumours to be found, and we are happy to check them all.

Seen anything strange lately?!

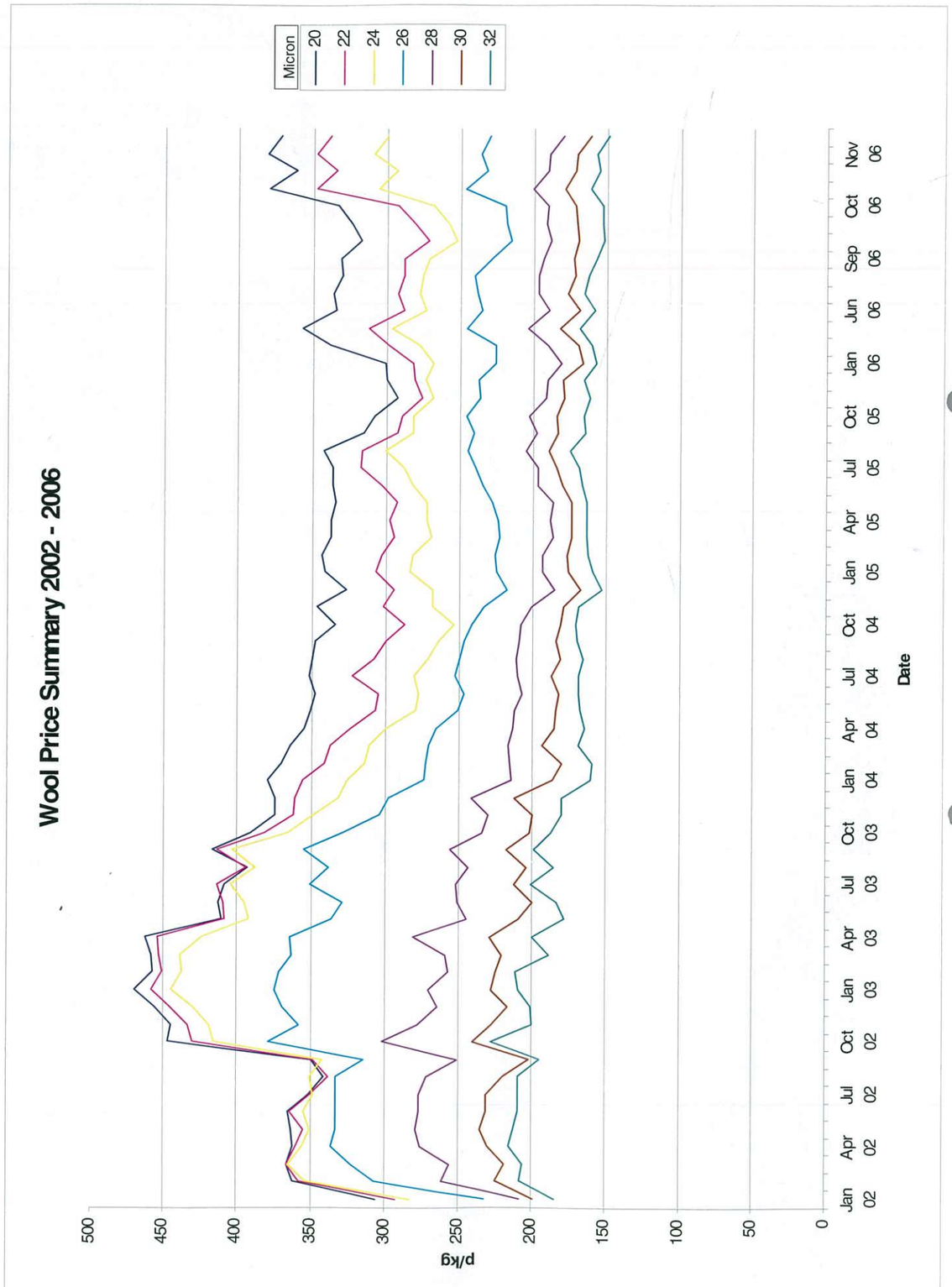
Don't leave it
..... or shoot it

Call the Veterinary Section on 27366

ACTIVE SURVEILLANCE IS OUR BEST DEFENCE



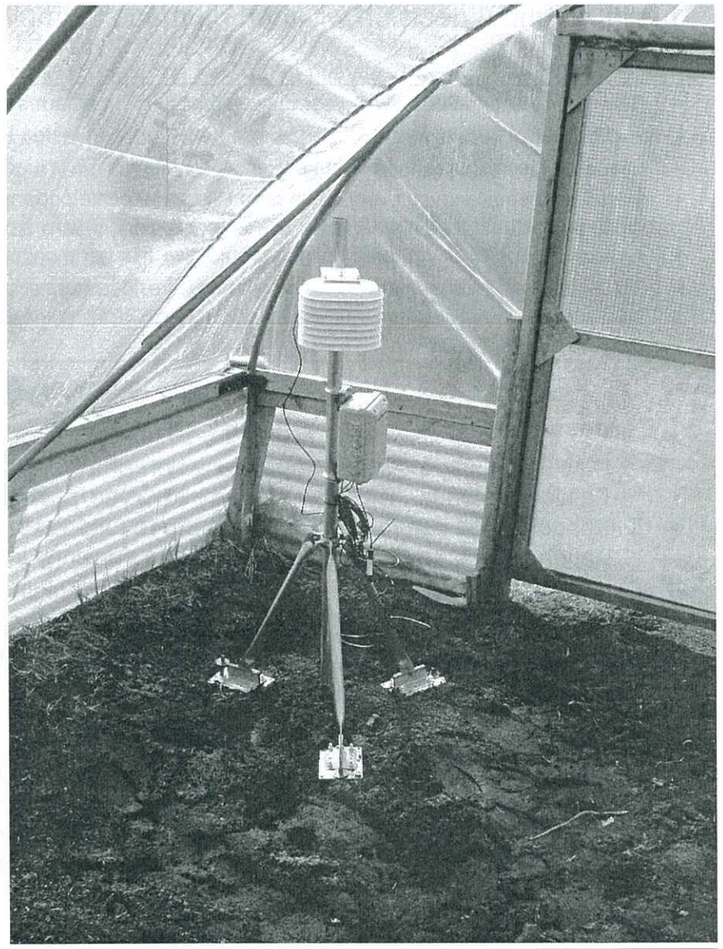
WOOL PRICE TREND OVER TIME



LOGGING IN A POLY TUNNEL

By Peter Johnson

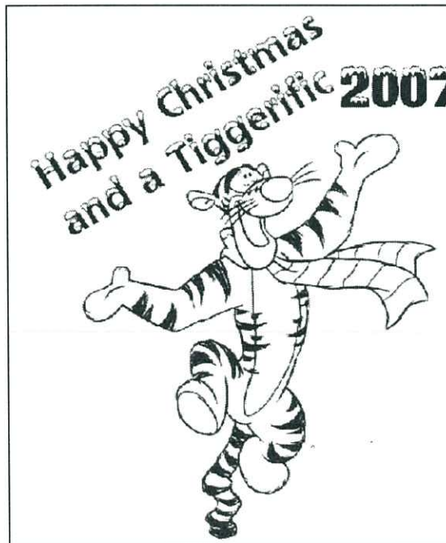
One of the environmental data loggers recently purchased by the DoA has been placed inside a poly-tunnel at the Stanley Garden Centre. The poly-tunnel is not heated and has a soil floor. It is hoped that the logger will remain in place for a period of around 6 months.



The data logger will record the following measurements every 10 minutes –

- air temperature
- humidity
- soil temperature (top soil)
- soil temperature (10 cm)
- soil moisture

It is hoped that the resulting data can be analysed to show the extremes and averages of temperature and moisture found within a poly-tunnel in the Falkland Islands. This data may prove valuable when looking into varieties of horticultural crops that can be grown in the Falkland Islands within a semi-controlled environment such as a poly-tunnel.



From,

all at the

Department of

Agriculture

PROPOSED CHANGES IN BOVINE TB MONITORING

In the AAC meeting on 15 November, the following proposal was discussed. Please make your thoughts known to Ian Hansen, Richard Stevens, Terrance McPhee or Justin Knight. A decision will then be made to implement or abandon the project

Introduction:

- Between 1987 and 2005 every year only a small percent of farms with cattle have been tested for TB.
- Approximately 36% of farms stocking cattle have not been tested for TB since 1987.
- Based on these figures the current system of monitoring TB is inadequate.
- Based on a small survey every cattle farm kills some cattle on farm each year so this could act as a better monitoring programme that the current one.
- An examination of slaughtered animals would give a better monitoring system for TB in the Falkland Islands.
- TB in cattle is a human health hazard so cattle with TB lesions should not be presented for human consumption
- Farmers need not become experts on the diagnosis of TB but with basic knowledge they can identify abnormalities and advise the DoA

Proposed changes in bovine TB monitoring

1. Purpose

1.1 Discussion paper on the implementation of a new strategy to monitor bovine TB within the Falkland Islands. The new strategy involves post-mortem (PM) examination of camp and abattoir killed beef and reporting of the results to the DOA. The strategy replaces the vaccination reaction monitoring system that is currently in place.

2. Recommendations

2.1 Delegates of the AAC discuss the proposal with their constituents (RBA members and farmers) plus other interested parties and advise the DOA whether there is support for the introduction of the new strategy.

3. Background

3.1 Current situation:

3.1.1 TB testing for cattle within the Falkland Islands is undertaken by intradermal antigen testing.

3.1.2 This testing requires the cattle to be injected and the reaction to the injection examined 4 days later.

3.1.3 This presents difficulties as cattle have to be yarded and reyarded 4 days later – yarding facilities are poor on many farms.

3.1.4 Records indicate that between 1988 and 2006, 36 % of farms stocked with cattle have never been tested.

- In 2003 14% of the cattle population were tested
- In 2004 8% were tested
- In 2005 10% were tested

3.1.5 Between 1988 and 2005 the number of tests on each farm varies from 10 (the dairy) to 1.

3.1.6 The last positive test case was in 2003 and was not confirmed as the cow died and the farm changed management.

3.1.7 The second last suspect case was in 1998 but this case could not be confirmed by laboratory culture in UK so can be considered negative.

3.1.8 The Sand Bay Abattoir (SBA) is now killing approximately 350 head of cattle each year. These are mostly 'young' stock.

3.1.9 The SBA employs a person with meat hygiene inspection (MHI) qualifications. Currently each beast slaughtered is inspected for evidence of TB (either examined by the person with MH qualifications or an employee trained by him).

3.1.10. The SBA is submitting a monthly report to the DoA on beef kills and PM inspection findings.

3.1.11 'Home killing' is allowed in the Falklands for sale and personal consumption.

3.1.12 There is currently no inspection requirements imposed on 'farm killed' stock although there is no restrictions on the sale or consumption of that meat.

3.2. Difficulties with the current TB testing campaign:

3.2.1 It is thought that FI is bovine TB free but wild cattle exist on the Falkland Islands.

3.2.2 A monitoring programme has to be in place to prove and demonstrate the Falkland Island claim that it is TB free.

3.2.3 Many farms have not been tested.

3.2.4 Yarding facilities on many farms make it unlikely that this situation will change under the current practice.

3.2.5 Cattle being slaughtered at the SBA are 3 years old and under so this population bias is less likely to find an infected animal.

4. Proposed new strategy

4.1 Run training sessions on the PM inspection of cattle for farmers

- training days run by the DoA.
- training days may involve the MHI who has technical expertise in this matter (this will involve negotiations with SBA management).
- training will involve development of literature for farmers on PM examination and sample preparation.

4.2 Only farmers who undergo 'training' can slaughter animals for sale.

4.3 Farmers submit a slaughter return each time they kill a beast.

4.4 Farmers submit any suspicious lesions or advise the DoA so they can collect samples.

4.5 Suspicious samples will be sent to UK for laboratory analysis

4.6 Advantages of proposed changes

4.6.1 A 'rudimentary' meat hygiene inspection programme will be introduced into farm killed beef for sale and domestic consumption.

4.6.2 The current testing system can be abandoned or used only on dairy cattle which will save time and is inefficient.

4.6.3 This system of surveillance should be as effective as the current system at monitoring TB in cattle in the Falkland Islands.

4.7 Disadvantages

4.7.1 The education programme will have to be ongoing so more work time will be taken up by farmers and Veterinary Section.

4.7.2 The management of SBA may not be willing to share MHI as the MHI gives a 'market advantage' for SBA.

4.7.3 Farmers must co-operate willingly unless the system is legislated and penalties are imposed.

WOOL WAREHOUSE

By Lucy Ellis

The D.o.A has received numerous calls from farmers asking about the Wool Warehouse and what instructions to give to carriers as to where to put their bales.

Whilst the D.o.A has no official say in the management of the wool warehouse, we did think it prudent to get some sort of plan in place for the interim, especially now that core sampling is underway. These plans, which we sent to everybody 2 or 3 years ago, are basically the same but have been slightly modified to take into account SAAS and the double dumper.

May I also remind growers that it is very important to inform your carrier where your bales are to go in the warehouse i.e: in the coring area, not to be cored and shipped with FIC/SAAS or, at this stage, uncertain so can go in the "Unknown" area etc.

These floor plans are in no way definitive, they could very well change drastically, but for the time being could carriers/hauliers and individuals bringing bales into the warehouse please follow the guidelines.

If anyone has questions/comments or an improved floor plan, please do not hesitate to call me on 27355.

IN AN EFFORT TO MAKE THE WOOL WAREHOUSE A MORE USER FRIENDLY AND LESS CHAOTIC AREA IT HAS BEEN SUGGESTED THAT THE WAREHOUSE GETS SPLIT INTO BLOCKS LIKE SO:

BAYS, ON THE LEFT, INCLUDING THE UNLOADING AREA - F.I.C

AREA BETWEEN FIC AND FLH - SAAS

END OF THE SAAS AREA UP TO THE CORNER ON THE LEFT - FLH

FIRST 2 BAYS, ON THE RIGHT, PAST THE UNLOADING AREA – DOUBLE DUMPING AREA

AREA PAST THERE FOR CORED BALES TO BE DOUBLE DUMPED

BAYS ALMOST TO THE CORNER ON THE RIGHT - ALL BALES FOR CORING (EXCLUDING FLH)

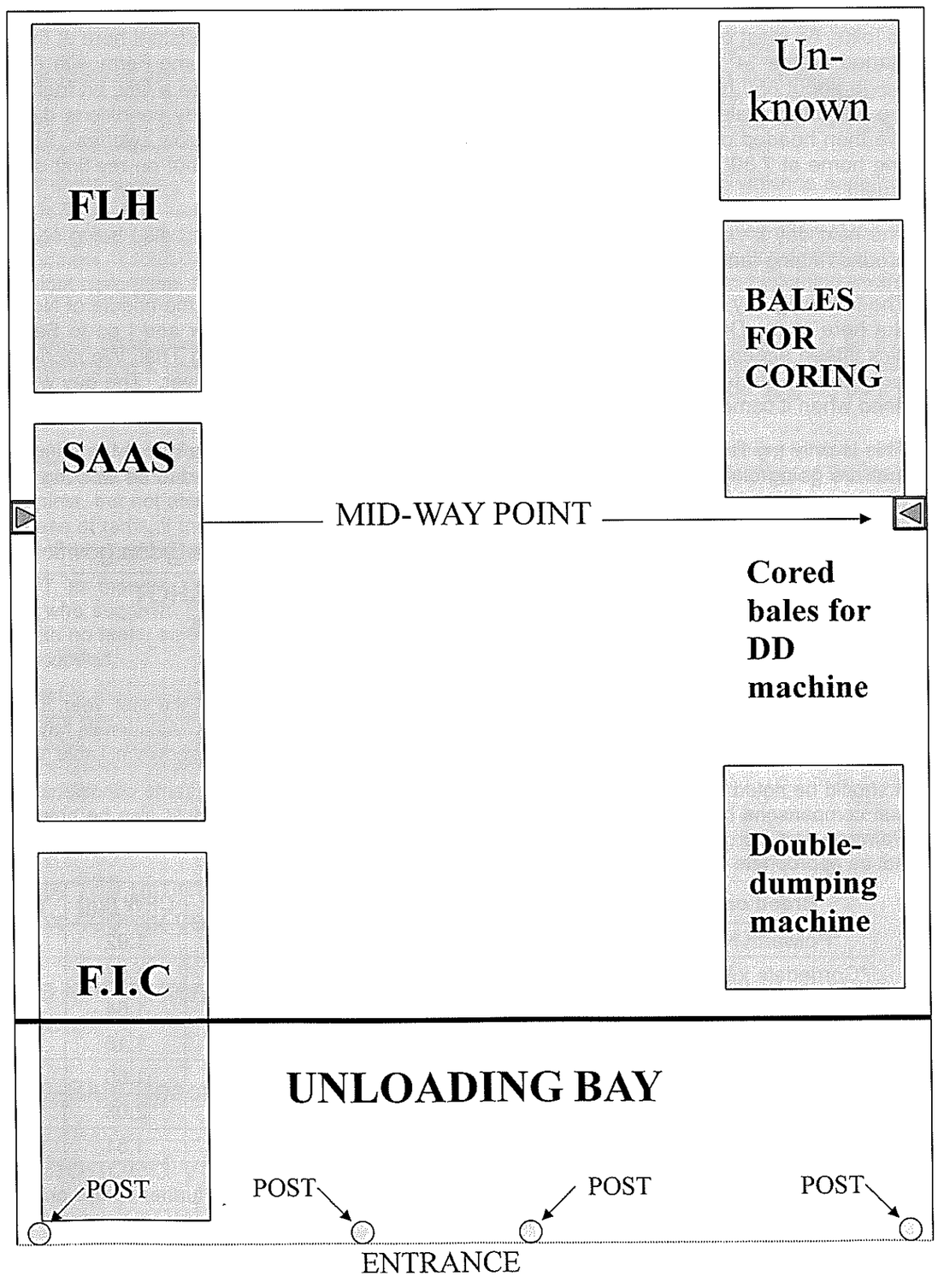
FAR RIGHT CORNER – BALES WITH NO FIXED DESTINATION

CAN ALL INDIVIDUALS AND HAULIERS PLEASE MAKE EVERY EFFORT TO FOLLOW THIS FLOOR PLAN - THANK YOU

PLEASE NOTE:THIS IS NOT A DEFINITIVE PLAN AND WILL BE SUBJECT TO CHANGE

THIS IDEA HAS BEEN SUGGESTED BY VARIOUS GROWERS, F.I.C, FLH AND THE D.O.A

Layout of the Wool Warehouse



NEW AGRICULTURAL ASSISTANT

By Vikki Lee

Hi folks. As most of you may already know I am the new Agricultural Assistant here at the DOA. I started on the 14th of November. My first day included going out to Home Farm with Andy P to weigh about 550 hoggets for one of the feeding trials. It turned out to be a little bit frustrating as the weighing scales were not working according to plan, plus the windy conditions didn't help. We then headed off to Cape Dolphin to look at some suitable land to grow swedes. Finally getting home at 7.30!! I did expect some early mornings and late nights, but on my first day. How cruel!!

The next day it was mostly involved formal paper work in the office and also being Nyree's run around ringing farmers for the forthcoming AI and ET programme.

The following day it was snowing!! Not just a little bit considering it was the middle of November!! But here at the DOA the weather doesn't stop the works. So off Peter and I go to Saladero to pick fifteen sheep up to bring back to Stanley for the Imported Feeding Trial. We recorded their weights and ear tag numbers before putting them in back of the Landrover. The day was brightened when it came to lunch time and I was lucky enough to sample one of Viv's fantastic lunches.

This is only my first week; I've really enjoyed it and already learnt loads about the different trials that are going on. Most people at the DOA will tell you I am very excited to be working here and really look forward to working with you in the near future.

Telephone: 27355 Email: vlee@doa.gov.fk

SHEEP BREED PERFORMANCE SNAPSHOT SALADERO & GOOSE GREEN 2006

By Neil Judd & Lucy Ellis

A number of sheep breed/crosses have been located at Saladero over the last year. In addition Goose Green has continued to manage the National Corriedale Stud Flock. All animals have recently been shorn for the first time; animals have also been weighed. Results are shown in Table 1.

It should be noted that the ewe hoggets were all run as 1 mob (under the same conditions). As a result comparisons between the various breeds/crosses are possible. It should also be noted that the Polwarth and Corriedale ram hoggets were run on different farms, hence different comparisons are not as appropriate for some characteristics (such as liveweight).

Breed or Cross	Micron	Liveweight (kg)		GFW (kg)	CFW (kg)	Yield (%)
*Polwarth NSF Ewes	20.35	(11/10/06)	31.0	2.67	1.92	72
*Corriedale x Dohne Ewes	22.47	(11/10/06)	33.0	2.44	1.65	68
*Dohne Ewes	19.26	(11/10/06)	32.0	2.33	1.64	70
*SAMM Ewes	22.57	(11/10/06)	35.0	1.78	1.18	66
*Poll Dorset Ewes	29.53	(11/10/06)	38.0	1.67	1.00	60
**Polwarth NSF Rams	20.32	(23/11/06)	39.0	3.04	2.08	68
**Corriedale NSF Rams	24.31	(13/11/06)	38.0	2.84	1.81	63

Please do not hesitate to contact Lucy Ellis or Neil Judd if you would like further details on the conditions under which the breeds/crosses were run.

Note: * Run under the same conditions

ENTROPION – A PROBLEM TO WATCH FOR

By Nick Pitaluga

With lamb marking now on us, (for those who haven't yet done it), it seems timely to raise the subject of something which may (and should) be of interest, if not concern to people as they mark this year's crop.

Now that some of the bloodlines from the AI/ET progeny stock must be starting to produce the next generation, & be put across local flock lines, there will be considerable anticipation to see what's coming out of it. Something that is, it seems, seen by many people in small, but occasional quantities in their lambs, is what appears to be a runny or watery eye or both eyes.

It is well worth looking to see if it is just pen dust, or unfortunately, an affliction which is endemic in Falklands flocks that have pushed finer, especially those that have had looser-skin sheep crossed into them. Apart from putting lambs off drinking when new born & ultimately causing ulceration of the eyeball, blindness, ill thrift & possibly death, its not an issue that has merited serious consideration in areas it might have done, hence this short note of caution for those who *may* just be becoming aware of it.

This inturned lower eyelid, or "entropion", is hereditary, albeit recessive, like black spots, so it *can* jump a generation & come out in later crosses. It is a serious, but not insurmountable problem, which can cause a variety of % -age damaging issues in flocks, so it really needs to be weighed up if you happen to see a lot of it.

There <u>are</u> treatments for it, for affected animals; this really should involve veterinary advice, so it is not the intention of this article to get too deep into that, although rolling out & pinching of the skin, is the simplest, but not always guaranteed to work. It also needs to be considered whether, particularly in the case of rams, if the interests of your flock (or others, if you sell sheep), are best served if these sheep are not marked, given the recessive & potentially damaging effect they can have.

It is NOT, as thought, confined to any one breed; it is there in many, & please, do not be kidded by anyone who suggests it's <u>not</u> important; it IS! You would not want to use rams with one testicle, or ewes with no teats, so lambs that can't see or focus properly are at greater risk, as well as considerable discomfort.

The effect is much the same having a piece of gravel, or a grass seed in your eye. (It was even present in one eye of a massive Corriedale ram judged Grand Champion at the Pastoral Show in Punta Arenas back in 1998…where it was passed off as being caused by the bosal he was wearing for the show…!!) Good luck with your marking.

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PUZZLE PAGE

Xmas Special

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