

THE WOOL PRESS

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Telephone +500 27355

Fax +500 27352

sferguson@doa.gov.fk

In this issue...

EDITORIAL	2
SALADERO RAM SALE 2007	3
DOHNE MERINO & SAMM – JOINT VENTURE	3
LAMB PRODUCTION AND TESTICLES	5
DOG PILLING PHONE BACK - WHY?	5
HAY AND SILAGE. WHAT DOES IT COST TO PRODUCE?.....	6
FALKLAND ISLANDS WETHER TRIAL HAS BEGUN.....	8
PELLET FEEDING SHEEP – HOW DO YOU DO IT?	9
THE COATS COME OFF AT MANY BRANCH	10
DO PLOVERS AND DOTTERELS STAY AT HOME OR GO TRAVELLING OVER WINTER?.....	11
WHY HYDATID ISN'T SIMPLE	11
INTRODUCING THE NEW GENERAL MANAGER OF FIDC	13
THE TRUTH IS OUT THERE.....	15

EDITORIAL

February, I was assured by my Bold Cove colleague, with guarantees written in foot high letters of glittering gold, is the best month of the year. Not, it would appear, for the wild, wet and windy February of 2007. I may have to litigate!

As the traditional end-of-shearing celebration, Sports Week, closes with shearing yet to do, we can only hope that the abundance of grass at least provides some benefit for the stock. Ewes going into winter with extra body fat – if they haven't shivered it away - are more likely to sustain a successful pregnancy and come through those difficult months when pregnancy is advanced and grazing is scarce. But for the humans at least, the weather has been a trial.

Talking of which... this month's Wool Press is, as ever, an educational layer cake, which is what makes it such interesting reading. Peter Johnson holds the crown with a veritable clutch of worthwhile articles covering trials past, present and future, demonstrating amongst other things that there are always new avenues to explore in this challenging farming environment. It's all about seeking every last ounce of advantage by adding snippets of value to the product. Genetics, strategic food supplements and even ovine tailoring are the areas under investigation, and Peter is only too happy to hear from you. In a similar vein, Andrew Pollard has some sage advice about the feeding of hay and silage. Do they supplement the diet or simply replace like for like? Is the cost covered by the benefit? Up and coming trials for the feeding of bypass protein may provide a financially viable alternative.

On the business side of things, the annual Saladero Ram Sale is fast approaching, to be held once again at Goose Green (to whom we extend our gratitude). Please take note of the timing of events, make your travel arrangements, and prepare yourself for a feast of fertility. Not entirely unconnected, John Hobman has provided an invaluable table of National Stud Flock averages which is food for thought. And Neil Judd has laid out the details of some Joint Venture Partnerships being made available for the propagation of FIG owned sheep. He is keen to hear from interested parties.

From the veterinary section, Vic Epstein has some words of warning about the short scrotum castration technique, and Lyn Dent describes her foray into the lair of the Patagonian Fox on Weddell (foxes beware - the hunt is not yet over). Linked uncannily to this - and proving that hydatid is an almost inexhaustible subject - I have tried to provide a balanced article laying out the escape routes hydatid may use to bypass our controls, with a concluding message of hope. There should be a few surprises.

Twitchers among you who think they can see a plover or dotterel wearing exotically coloured pop socks will be interested to read Helen Otley's piece, which explains all. Please record any sightings and send the information to PhD student James St Clair. Ultimately the clarification of bird movements has implications for their conservation, so knowledge is a worthwhile thing.

And finally we welcome Mark Brunet to his new role as General Manager of FIDC. He sets out his core philosophy and looks forward to a productive relationship with the islands. We wish him every success, to the benefit of all.

It's a calorific layer cake! If you need a work out, turn to the puzzle page. Enjoy!

Joe Hollins
Acting Senior Veterinary Officer

SALADERO RAM SALE 2007

At Goose Green

Venue:
Goose Green Shearing Shed

Time:
Inspections start at 8am

Date:
Wednesday 14 the March 2007

Auction:
Commences at 11am

MV Tamar:

The MV Tamar sails from Port Howard to New Haven at 7am on the morning of Wednesday 14th March and leaves New Haven for Port Howard at 4.30pm the same evening. Please contact Jason on 22206 for bookings and information.

Approximate Number of Rams available at the Sale:

65 x Polwarth Shearling Rams
35 Corriedale Stud Flock Shearling Rams

Sale catalogues are being generated now and will be distributed in the next week or so. All farmers on the Wool Press mailing list will receive a copy – if you know of anyone else who would be interested in obtaining a catalogue, please advise them to contact Siân Ferguson at the DOA.

Auction:

The Helmsman auction will commence at 11am sharp for all buyers wishing to purchase any of the above rams using their **own** funds. Please note that PIP funding will **not** be available to assist farmers with any purchase at the Helmsman auction. Usual auction processes including buyer numbers etc will apply. Rams remaining unsold after the Helmsman auction will be allocated as per the 2006 process to farmers using PIP funding.

Private Ram Sale Opportunity

The opportunity for farmers to sell **their own rams** at the Ram Sale exists. Please contact Lucy Ellis or Neil Judd to discuss your options.

It should be noted that sale negotiations and payment details for privately owned rams will remain the responsibility of private buyers/sellers. The DOA will not take part in or accept any responsibility for private transactions completed on the day.

Farmers participating in the PIP scheme should also be aware that PIP funds are able to be used to purchase rams from private farms **provided** all PIP planning requirements are satisfied. Anyone requiring more information or details should call Andrew Pollard or Neil Judd on 27355.

Exhibition Animals:

On exhibition this year will be some Multi-Purpose Merinos (MPM) and the elite group of the Polwarth National Stud Flock Rams. If farmers would like to exhibit elite animals, please contact Lucy Ellis for more details.

If anyone has any questions or queries regarding the Ram Sale, please do not hesitate to contact any of the above mentioned members of staff at the DOA on 27355.

DOHNE MERINO & SAMM – JOINT VENTURE

Expressions of Interest

In 2006 the AAC approved the establishment of Joint Venture (JV) arrangements with local farms for the propagation of FIG owned, non-NSF Polwarth sheep currently based at

Saladero.

In line with this approval, the Department of Agriculture calls for expressions of interest from parties for such a venture with FIG owned Dohne Merino and SAMM shearling ewes.

Approximately 50 shearling ewes of each breed are available for the JV, however this may vary slightly due to farmer demands for ewes for flushing this breeding season.

In addition to the Dohne Merino and SAMM ewes, some 20 Corriedale x Dohne ewes are also potentially available for inclusion in one of the schemes.

JV partners will be selected on their ability to satisfy strict selection criteria as follows:

As follows:-

Grazing Management system in place that demonstrates an ability to provide the highest level of stock control, stock supervision and stock nutrition to JV ewes, rams and lambs.

Adequate paddock sub-division and feed availability to cater for individual sire mating and lambing of up to 8 individual family groups for each breed.

Ability to provide pedigree recording of all lambs born.

Ability to provide full performance recording of all animals born including:-

Live weight of all JV sheep recorded each month

Greasy fleece weight, yield and clean fleece weight and micron recorded each shearing

Production of Estimated Breeding Values (EBV's) and overall ranking carried out of for all lambs born each year.

5. Demonstrated ability to manage artificial breeding programmes (AI/ET).

6. Provision of artificial breeding support services including training of rams for fresh semen AI and collection of fresh semen to support spread of elite genetics to other interested farmers.

What's in it for the Joint Venture Partner?

Rams

(a) The JV partner will have restricted access to elite rams generated from the partner ship for limited on-farm use (within strict guidelines and clearly not at the expense of JV use).

(b) All ram lambs born remain the property of FIG (DOA).

(c) Ram lambs will be retained on the farm and managed for up to 18 months. They will be removed from the JV farm by 18 months of age unless:-

They have been retained as an elite stud ram for "JV use or
The retention has been agreed by both parties.

Ewes

(a) All existing mature ewes remain the property of FIG (DOA).

(b) Up to 50% of mature ewes owned by FIG (DOA) may be required for flushing by other farmers each year. Such activity will not be the responsibility of the JV farm. Any flushing of JV ewes on other farms must be completed by mid-May each year to allow natural mating of JV ewes each year in June.

(c) Ewe lambs will be split at the rate of approximately 60% to Joint Venture farm and 40% to FIG (DOA). Division will be carried out at weaning each year on a randomised basis.

Interested parties are urged to contact Neil Judd by 16/03/2007

LAMB PRODUCTION AND TESTICLES

By Vic Epstein

Doug and Damien published an article Lamb production for FIMCO (November 2005) and amongst other things suggested the possibility of:

Leaving rams entire or

Short scrotum castration. This requires castration before 3 weeks of age and pushing the testicles into the inguinal region before placing the rings over the empty sac.

If either of these techniques are used in LAMB production it should be emphasised that the LAMBS should be in the freezer as new season lambs ie 4- 6 months of age.

Before embarking on this management strategy ensure:

Ewes are mated at the right time of year to ensure lambs are dropped and can be grown out in time for the abattoir season

The pasture plan is in place to ensure there is good feed for the ewes so they can produce a lot of milk for the lambs to grow

If early weaning is planned and growing out on pasture, then the weaning pasture must be planned and available

If you can't do it don't do it!! Nothing is worse than lots of randy rams running about looking for mischief.

DOG PILLING PHONE BACK - WHY?

By Vic Epstein

Camp dwellers: Please don't forget to contact the DoA after you pill your dogs.

Why are we asking?

Although some are; not everyone is perfect. The experts are still telling me that the most likely cause of us still having hydatids in the Falklands is non-compliance ie people don't worm their dogs or allow their dogs access to offal.

We know there is **NO** MALICIOUS non-compliance!

How?

If this were the case then there would be an area/s in the Falklands where the level of hydatids is much higher than everywhere else. This is **NOT** the case. So the only non-compliance is the **FORGETFUL** kind. This could possibly be the case!

There are those that never forget and there are many camp dwellers in this category. There are some who forget sometimes - we have to send reminders to about 10% of the Stanley dog owners each 6 weeks to remind them to bring their dogs to the DoA for pilling. They forgot!

If you haven't advised that you have treated your dogs you will be contacted on the Monday

following and asked if the job was done. Don't be offended if you are a never forgetting person. For the forgetful person it may act as a reminder.

Remember hydatids should have been eradicated over 10 years ago based on the basic knowledge and life cycle of the disease BUT it is still with us. We can't go on pilling forever!

HAY AND SILAGE. WHAT DOES IT COST TO PRODUCE? DOES IT MAKE FARMERS MONEY?

By Andrew Pollard

In 2006 14 samples of locally produced hay and silage (varying pastures and cereal crops) were sent to a laboratory in New Zealand for analysis. The results of the analysis were discussed in a session entitled "Growing Forage Crops More Successfully" at Farmers Week 2007.

The presentation focussed on "pasture quality", costs of production and dry matter yield utilising real information from 3 farms in the Falklands (5 samples).

The table below lists these costs; farms have not been identified for this exercise

Sample	Crop	Type of Feed	Tonnes Dry Matter per Ha	Cost £/ tonne of dry matter	Energy	Protein (%)
					ME MJ/Kg	
A	Cereal	Silage	2.34	171	8.7	9.9
B	Grass/Legume	Hay 05/06	3.55	75	8.3	13.3
C	Grass/Legume	Hay 06/07	8.17	32	7.5	10.7
D	Cereal	Silage	2.08	75	8.7	8.6
E	Cereal	Silage	2.12	375	7.8	6.4

The samples show varying quality in regards to energy and protein. They also show massive differences between yields (note: two of the hay crops were harvested from the same field over consecutive years). As shown above, costs £ per tonne of dry matter are generally higher for cereal crops than grass/legume pastures. Establishment costs for cereal crops are annual (one off), grass/legumes crops are over the pasture lifespan (assumption of 10 years for this exercise).

It is important to take things a step further than examined at Farmers Week. That is, to determine the feed value and also cost per head from using the conserved feed.

Case 1 using Sample A Results

Based on a cost per tonne of dry matter of £171 (see table above)
Cost £/kg dry matter (£171 divided by 1000) = 17.1p

I have now made an assumption that we are feeding sheep, at close to full feed requirement, at 1 kg Dry Matter per head for a period of 100 days (winter feeding). **Please**

note at this level of feeding, the feeding could not be classed as supplementary, but rather as substitution as it is close to the animals entire diet (assuming a 40-50 kg wether)

$$17.1 \text{ p/Kg Dry Matter} \times 1 \text{ kg (feed per day)} \times 100 \text{ days} = \text{£}17.10/\text{sheep}$$

Now we will reduce the intake to 0.5kg per sheep per day

$$17.1 \text{ p/Kg Dry Matter} \times 0.5 \text{ kg (feed per day)} \times 100 \text{ days} = \text{£}8.50/\text{sheep}$$

If the rate of feeding was reduced to a lower level, it would be possible to theoretically reduce the cost per head for the feeding programme, however low level feeding (at considerably less than 0.5kg of hay per sheep per day) on typical winter pasture in the Falkland Islands would not be expected to make a significant difference to animal performance.

Summarising the example above, to justify feeding 1 kg DM/animal for 100 days we would have to increase return by more than £17.10 from each animal to justify the exercise (reductions in death rates etc are also important of course and should be valued).

At supplementary rates of 0.5kg per day for 100 days, the cost per sheep is reduced, but the question remains... is the change in each animals performance big enough to make a cost effective difference to the stock. That is, does it generate more than an extra £8.50 per sheep because of the feeding?

Case 2 Using Sample C Results

Based on a cost per tonne dry matter of £32 (see table above)

$$\text{Cost £/kg dry matter (£32 divided by 1000)} = 3.2\text{p}$$

$$3.2\text{p/Kg Dry Matter} \times 1 \text{ kg (feed per day)} \times 100 \text{ days} = \text{£}3.20/\text{sheep}$$

$$3.2\text{p/Kg Dry Matter} \times 0.5 \text{ kg (feed per day)} \times 100 \text{ days} = \text{£}1.60/\text{sheep}$$

Compared to the previous example above this crop looks like a far more attractive option, However the same serious questions remain: - how much feed per day is required, what is the cost of the feed and what is the response from the feeding? Best estimates are that 0.5 kg per sheep per day (or more) would be required to make a meaningful difference to animal performance...hence more than £1.60 per sheep extra must be generated to justify the exercise (again reductions in death rates are acknowledged as an added bonus).

It is worthy to note that the same piece of ground had the following cost of production in its following season. Clearly costs and hence return on investment must be calculated over a number of years, not just on one season.

Case 3 Using Sample B Results

$$\text{Cost £/t Dry Matter} \quad \text{£}75$$

$$\text{Cost £/kg Dry Matter} \quad 7.5\text{p}$$

$$1 \text{ kg fed per day/sheep for 100 days} = \text{£}7.50$$

$$0.5\text{kg fed per day/sheep for 100 days} = \text{£}3.75$$

The feeding of hay and silage to animals in the Falkland Islands must eventually be compared to other strategic feeding options that could be available. The main alternative that will be investigated this winter are the use of low level feeding of bypass protein and feeding of forage swedes.

Regarding bypass protein, trials will explore the feeding of approximately 100grams of

protein per day to sheep. The feeding is hoped to address the animals' deficiency of protein and also to increase its intake of poor quality native grass. At current cost estimates, the feeding of bypass protein to sheep for 100 days will cost approximately £2.00/£2.50 per sheep. Again critical questions remain; what is the response to the feeding and will feeding bypass protein make farmers money?

It is hoped that answers to these key questions will be generated over the next 6 to 12 months for bypass protein as well as for swede and turnip crops.

In the interim however, the impression clearly does exist that in many instances the cost of production of hay or silage will not offer many farmers the likelihood of a return on investment when feeding large numbers of commercial sheep on native camp.

For the option of feeding hay and silage to present a strong possibility of making a return on investment, the following should occur:

- Low costs of production (possibly less than £40/tonne)
- High yields of dry matter (possibly greater than 5 tonnes dry matter)
- High quality feed (protein levels above 10%, energy above 8% and high digestibility)
- Low wastage during feeding
- Low risk of loss post cutting to baling (weather spoilage)
- Low risk of spoilage after harvest (storage)
- Sustainable pasture, as establishment costs are linked to costs of production.
Establishment costs divided by number of years hay can be cut (minimum lifespan of 10 years)

All farmers who would like to know the "true value" of their hay/silage crop please contact the department and we will gladly assist you through this process.

FALKLAND ISLANDS WETHER TRIAL HAS BEGUN

By Peter Johnson

The DoA's wether trial started in the last week of February. 11 teams have entered from farms on both East and West Falkland and all 165 lambs will be run together at Goose Green for the next 12 months to display the genetic potential of each sheep breed represented.

The trial will run 15 wether lambs in a team, representing various breeds. The mob will be run together for 12 months and measurements will be taken of both fleece traits when the animals are shorn in November/December 2007 and carcass traits when they are slaughtered in January/February 2008. The initial plan was to run a trial on both East and West Falkland; however it has been decided to combine the two sites into one larger trial group as an excellent site was on offer.

The trial will be run at Goose Green in the Beach Park camp behind Camilla Creek House. As many of you know this is excellent ewe country and will provide the best possible chance for the animals to show their true genetic potential. There has also been a swede crop sown in the camp to add to the winter nutrition of the animals. They will receive the best of care, and we would like to thank Brian and the team at Goose Green for volunteering to host the

trial and for preparing such a magnificent camp for the animals to graze and really show what genetic potential they have.

All animals were tagged, weighed and had their fleece length measured before entering the trial. They will then be run as a mob until shearing in November/December of this year. At this shearing, fleece weights and other traits will be measured and the wool growth while on the trial will be calculated based on these measurements and an indicative fleece price given for each animal. **The animals were not shorn upon entering the trial** as initially planned. We will use measurement and calculation to account for differences in fleece length prior to entering the trial. The animals will then be prepared for slaughter at the abattoir in early 2008, where carcass characteristics will be measured.

We plan to hold open days for both shearing and slaughtering of the sheep so that people who have entered teams as well other interested farmers can see the differences for themselves. All trial results and comparisons will be available by April 2008.

PELLET FEEDING SHEEP – HOW DO YOU DO IT?

By Peter Johnson

The DoA has recently instigated a full feeding trial at two sites. The trials provide a complete pelleted diet to new-season lambs destined for the abattoir. Lambs will be fed for 3 months aiming to reach as high a weight as possible before the close of the export season.

Animals are being fed on a complete pellet diet that was imported from Uruguay. The feed is in open troughs at Port Howard, and self feeders at EBF. 180 lambs at each of the sites entered the trial, with 150 of those animals being taken through to finish, based on their weight gains after 6 weeks of feeding.

These photos show the lambs and troughs at Port Howard, and one of the self feeders being used at Elephant Beach.

The outcomes planned for the trial include –

Management techniques/experience for fully fed sheep. The trials hope to answer questions such as - what is the best way to train animals to eat the pellets? How much extra management really is involved? What percentage of shy feeders are there? How can the feed be kept dry? How much wastage is there? What animal health precautions are needed? What quality of water is needed for the animals?

These are but some of the mountain of questions that will hopefully be answered from the trial. All that is learnt from the trial will be put into a best-management guide at the completion of the trials. If there are other specific questions that you have about full-feeding of sheep, please contact me and we can attempt to answer them for you, and for other people's information.

Animal growth response to the feed. This is the crux of the trial. The DoA will determine the growth rate of the animals by taking regular individual animal weights, and see if the extra growth rate due to the pellets is worth the cost of feeding the pellets and the extra management. If it is not economical at this point, the analysis will show us at what rate it does become viable, either with lower feed costs or higher prices paid for the finished lamb. This is important to remember, and collecting the data on growth rate, animal response and carcass characteristics is vital in determining if this is a viable option for the future of lamb production in the Falkland Islands.

Initial calculations tell us that at best; feeding pellets with current prices will be break-even. Without solid trial work conducted locally, any calculations made have a degree of uncertainty. The price of the feed we are using is £0.22 per kg of dry matter, landed in Stanley.

Seek out potential supply lines. Another positive from conducting the trial has been the establishment of links with stock feed suppliers in Uruguay. With the regular SAAS boat, freight is kept to a minimum, and for sourcing animal feeding products the supplier of this particular feed was very obliging and keen to start trading to the Falkland Islands. Anyone, farm or importer, who would like the details of the manufacturer can contact me for their details.

Trial Results. The results from the trial and the best-management guidelines will be available by Farmers Week this year. I will give short updates as the trial progresses over the next few months and if you have any questions about any of the issues raised, please contact me at the DoA.

THE COATS COME OFF AT MANY BRANCH

By Peter Johnson

After spending 10 months protecting the fleece growing beneath, the sheep coats were finally removed from the ewes at Many Branch on the 11th of February. The coats were removed as the final stage before shearing took place the next day.

The photo's across show the coats on the sheep, and after the coats were removed. It is a process that takes about 20 seconds per sheep while they are standing up. I am sure Bill and Shirley will agree that it is hard work on a hot afternoon!

There is an obvious line on their neck where the uncoated part of the fleece stops and the covered part begins.

The final body weights of the ewes showed no difference between the coated and the uncoated sheep. The difference in greasy fleece weight was only 40g and can probably be accounted for purely by the amount of dirt the coats have kept out.

There was a difference between the sheep as they were shorn. All of the trial sheep, starting with the un-coated ones, were shorn by Jack Wilson. According to Jack, the coated sheep weren't harder to shear, just 'different'. They felt wet, although it wasn't water, but actually beads of grease, as there wasn't any dust to soak it up. Another observation was that the wool on the front legs of the animals was affected by water, presumably where rain had trickled around the coat and dripped down the legs. Where the coats rubbed around the sheep's neck was also slightly matted and small pieces had to be removed from some of the fleeces.

Mid-side samples were taken from a random selection of both groups of sheep and will be further analysed. A bale containing only the coated fleeces was also pressed and will be core-sampled for comparison to other 'A ewe' lines of 'Many Branch' wool. These results will be published when they are available in the near future. Yield comparison will be particularly important to determine clean fleece weight differences between coated and uncoated sheep.

The future coated sheep in the Falklands – do you want to be part of a trial? The DoA is planning to make use of the sheep coats in a future trial, as they have a three year life

expectancy and are still in excellent condition. The planned trials for 2007 are similar to the 'Many Branch' trial, and will be a similar replication, where approximately 200 ewes will be coated and 200 ewes will be run as a control. There is also a hogget trial planned with 200 coated and 200 un-coated hogget's as a control.

The DoA would like to call for expressions of interest from anyone who would like to host either the ewe or the hogget trial. The host farm/s will be expected to work closely with the DoA for the duration of the trial and must be willing to provide the level of management needed to run the coated sheep. If you are interested in hosting either of the trials, please contact me.

These pictures show the difference between the coated fleece and the uncoated neck on the table.

DO PLOVERS AND DOTTERELS STAY AT HOME OR GO TRAVELLING OVER WINTER?

By Helen Otley, Environmental Planning Department

British PhD student James St Clair has completed his first of three summers studying two-banded plovers and rufous-chested dotterels on Sea Lion Island. Now back in his University of Bath office, he is wondering whether the banded birds will stay on Sea Lion Island or migrate northwards to East Falklands or elsewhere. "Similarly sized white-rumped sandpipers arrive in the Falklands in September from the Arctic, so plovers and dotterels should be able to travel large distances and move from island to island," explains James.

"Over the summer, the banded birds on Sea Lion Island stayed fairly close to where they were nesting, but over winter, no one knows if they stay or move to different feeding grounds," says James. "If you see a banded plover or dotterel away from Sea Lion Island, I'd love to hear about it."

James asks that you record the date, location, species and combination of the colour rings. The study birds have four bands, with the bottom right band being metal. Record first the colour of the bottom left band, then the top left band and lastly, the top right band. "Colour rings can be difficult to read," says James. "But if you see a colour-ringed bird but can not read the colours or sequence of rings, please make a note of this and submit the record anyway."

Records should be sent to James by email jjhsc20@bath.ac.uk or to Falklands Conservation who will pass them on.

WHY HYDATID ISN'T SIMPLE

By Joe Hollins

It would be reasonable to think that the subject of hydatid has been done to death (unlike the parasite as yet), but this article is designed to put together a few facts pertinent to the Falklands, and to give everyone a little hope that hydatid might one day be eradicated.

The life cycle

In its basic form everyone knows the hydatid life cycle – or they think they do! Sheep dies → Dog eats offal/cyst → Dog passes eggs in faeces → Sheep grazes eggs/forms cyst → Sheep dies... etc. Very simple, therefore very easy to control. Unfortunately – like everything in life – this 2 host loop is too simplistic. It is however the core of the problem and the main engine that drives hydatid, which is why it is also our main point of attack. The purpose of this article is to explain how a small trickle of hydatid manage to escape control.

Background

To recap, in 2006 out of 33,500 kills at the abattoir there were 5 confirmed hydatids, an incidence of about 0.015%. Without getting hung up on the fact that hydatid has still not been eradicated, this does not represent a specific breakdown of hydatid control because: (1) the incidence is statistically very low, and (2) the 5 cases are very scattered. Remember that a hydatid cyst can be years old, and at this level it is more likely that each cyst has its own particular story of how it escaped our three pronged eradication protocol, namely: (1) kennelling dogs; (2) denying access to offal; (3) worming every 6 weeks. To do this, there have to be small loopholes or escape routes, and to complete a 2 host cycle, 2 escape routes have to occasionally coincide (ie: sheep to dog and back again). At the level of 0.015% - through sheer chance – occasionally they do.

The escape routes

There are a surprising number, and this is probably not an exhaustive list.

- (a) Non compliance ie: human failure to dose dogs: (i) Deliberate (hopefully very rare). (ii) Forgetfulness (human nature, more common, and proven to occur in Stanley every 6 weeks!). (iii) Poor dosing technique/difficult dog (there are always dogs that refuse or hold tablets and regurgitate).
- (b) Underdosing: Either through miscalculation or tablet loss.
- (c) Drug resistance: Fortunately never recorded with praziquantal (Drontal/Droncit).
- (d) Transport hosts: An interesting category, they create a transport link between the dog and the sheep: (i) blue buzzers, (ii) green bottles, (iii) birds and (iv) beetles can spread eggs from dog faeces over at least 30 hectares. Do turkeys have a role the other way from carcass to dog??
- (e) Alternative hosts to sheep? Yes. Sheep are the ‘intermediate’ host (the dog is the ‘definitive’ host). Hydatid is fairly non specific for the intermediate host, which is why humans occasionally get involved. It is known that cattle can occasionally host the sheep hydatid (this is separate to the true cattle hydatid found overseas), and there is one paper recording sheep hydatid in the European hare. This could therefore apply to East Falkland. If anyone finds cysts in their cattle (or hare!) please send them in.
- (f) Alternative hosts to dogs? Yes. Although the hydatid is fairly specific for its definitive host, the dog, there is one well known exception – the fox. It is however a very poor and inefficient alternative. Whereas a dog, having consumed a cyst, may have 100s of hydatid tapeworms pumping out eggs, very few will take in the fox and in very few foxes. Egg production is low. But occasionally it happens. I know of 7 farms in the West alone with existing Weddell sheep, and some with Beaver sheep. It would not be surprising if this was a source of a very occasional - albeit rare - hydatid. (0.015% is 1 in 6,500 sheep!)
- (g) Access to offal: Dogs do escape and wander. Also there is unavoidable opportunist access to carcasses when out gathering.

- (h) Contaminated carcass site: Dogs don't need offal to get infected! Rolling in a contaminated carcass site followed by self grooming is enough. A cyst can contain up to 4 million tapeworm heads, scattered all about by the turkey vultures.
- (i) Ruptured cysts: In the same way, an unnoticed ruptured cyst when preparing a carcass would contaminate all the meat and surrounding ground with tapeworm heads. The meat is then fed to the dog.
- (j) Anomalous cysts: A small % of hydatid cysts are in the muscle/brain/other organs, and might be fed.
- (k) Adapted strain: It is known that one strain of hydatid has a 5 week life cycle. The Falklands may have an adapted strain. Even so it would only have a tiny window of opportunity to produce eggs between 6 weekly wormings.

The good news

That is – surprisingly – about 16 possible ways for a hydatid to slip through the net. But don't despair! These rare escape routes are reliant on the central life cycle to sustain the hydatid's existence. 0.015% means that the life cycle is teetering on the brink of collapse, which is why we are pressing hard to make sure everyone is still worming effectively every 6 weeks. Tasmania took 35 years to eradicate, New Zealand over 40. Still they are only 'provisionally free' and have had a smattering of residual cases. We may be witnessing its final throes in these islands, so – pile on the pressure!

INTRODUCING THE NEW GENERAL MANAGER OF FIDC

By Mark Brunet

Mark Brunet arrived on Friday January 26th and started work as General Manager, FIDC on Monday 29th. Here, he tries to explain why he and his wife, Ursula, were prepared to let their son live in their house in the UK while they went away...

Having spent three months explaining "No, I haven't been there before I go out to take up the job" it shouldn't have been a surprise that I have spent the last two weeks explaining "No, I hadn't been here before I came out to take up the job".

It symbolises, for me, the fact that Falklanders have a great deal in common with those in the UK - well, with the people we know in the UK, anyway. But it is a valid question - what was the appeal that was so strong that we committed to three years far away from home?

Partly, this was because this is a selfish opportunity for me to do the sort of thing which I really enjoy - helping others to make a real success of their ideas, and for those already in business to do things better. Partly, to be able to get to know a really beautiful part of the world. And partly to experience something different - a different sort of community and a way of life that appeals to two people brought up in the country.

Above all, "because we can" - no parental ties now, and youngest gone to University (Spanish and Russian at Exeter).

After a varied (chequered?) career which has included marine engineering, the performing

arts (backstage - I have not got the legs to be a dancer), controls engineer, project manager, and Finance Director of a start-up company, I have spent the last six years working directly with companies and also building and running teams of advisers - all aimed at helping to create sustainable, growing businesses in a variety of sectors. For the past two and a half years, I have concentrated on working with people doing new things, often in new markets - and helping them to understand how (and when) to improve things which have "always been done that way".

Developing a business is difficult. I know - we grew our company from nothing to 120 people in nine years before I left - and I wish I had known then what I know now. There are things - simple things - which help make understanding any business easier. Mostly this is about breaking down the process of seeing what is going on into simple areas - asking simple questions about the product or service, the business model (the people and the money!) and the market - and particularly how to get to the people who will buy from you.

Many people are most interested in the core thing that makes their business - the product. Diving company people like diving; farmers like farming (mostly, anyway). But a little bit of better understanding about how the business can be improved can make it much easier to be able to afford the time (and money) to get on with the interesting bit of being in business. For those whose interest is in being business people, there is always scope for understanding how better to understand and improve the business, and someone to bounce thoughts off can be invaluable.

Mostly, I think this is about listening - and asking questions. A good business adviser isn't a specialist in your business - nor your product, your way of doing business or your clients. A good programme of business support aims to improve the way that business people go about improving their businesses!

And I believe that this is as true of rural businesses, including farming, as any other. I grew up in the country; my first jobs were on farms (cattle, arable and - oh boy - sheep!).

Supporting business directly is part of what FIDC is about - and I hope that we can aim to help make them better businesses by whatever means is most appropriate.

That is only part of what we do, of course - we have a variety of projects going which are aimed at helping other people to tread new paths confident that they can make a viable business. The fish farming project at Moody Brook aims to establish ways of making low-cost and low-tech fish farming viable for the islands, for example.

At the other end of the scale, we are trying to map a route forward to make sure that the prot area gets developed - it is high time to make something happen.

Most importantly, I believe that all of these strands of activity contribute to the development of sustainable growth in the Falklands.

Sustainability is about balancing three things - making money, providing the right quality of life for the populace and caring for the environment, so that it is there for our children to pass on to theirs. All three legs of this stool need to be in balance - if one leg is short, you will fall off!

So when you look at your business plan, or when I am asked to look at a project aimed at enhancing something in the Falkland Islands, there are three things I shall be trying to make

sure are all catered for and all in balance.

People, Profit, Planet. Let us improve all three.

Profit, People, Planet - balance them or fall off the stool.

THE TRUTH IS OUT THERE

By Lyn Dent

At 0900 hrs on Monday morning the 22nd of January, a team of 4 hand-picked hunters & backup crew were due to set off by helicopter to Weddell Island. The Department of Agriculture has declared war on hydatids and the purpose of this trip was to determine if hydatids were present in foxes in large numbers on the Island. The aim was to shoot as many foxes as possible in 3 days and to conduct post mortems on site and examine their gut contents.

Unfortunately the weather was against us as Stanley was shrouded in heavy fog. Heli-ops requested that we all proceed to MPA and, as soon as it was clear enough, they would try from there. We did actually get airborne for about 15 minutes then suddenly executed a u-turn in mid-air and went back to MPA. The West and surrounding islands were all fog-bound to ground level so we were grounded. By 1300hrs the decision to abort was made and we all returned to Stanley. A follow-up heli-bid was submitted for the following Monday in hopes that the weather would improve by then.

On Monday the 29th January, weighed down by mounds of equipment, including rifles, ammunition, sleeping gear, scientific apparatus, Vick's Vapo-Rub and food, we went back out to MPA. The Chopper took off at 1125hrs and landed us at the settlement on Weddell Island at 1240hrs. We landed to find two American men, Bob and Robert, standing on the green watching us with interest, which was disconcerting since we knew the island to be uninhabited at the time. They had just landed their Cessna on the airstrip and were resting and waiting for the wind to die down before proceeding to Port Howard and on to Saunders's Island. They were travelling around the world in their light plane and were very interesting to talk to.

The hunters went off in two teams of three to various parts of the island in search of prey. The A+ Team was led by David McLeod with Ernie and Vic, and Jeremy Poncet was leader of the A_team, Steve and me. Vic the vet was in charge of the post mortems, and I had the rather dubious privilege of harvesting gut samples and digging around the small intestines for faecal samples and to search for adult *Echinococcus granulosus* in the gut lining. This is where the Vick's came into its own! It is a well-know trick of police and mortuary workers to apply a generous amount of Vick's to the inside of your nostrils when dealing with dead bodies. Foxes don't even have to be dead to stink so it was a wise precaution.

When the foxes were shot, Vic and I opened their abdomens and tied off various sections of small intestine for examination. This is to keep the worms in one section for easy retrieval and to prevent any possibility of accidental infection to humans. I split each section lengthwise then immersed the sections of gut in 0.9% Saline for 30 minutes to loosen any worms from the gut lining. I then scraped the linings with a metal spatula, *not* from *my* kitchen, and examined the contents with a hand lens and then a dissecting microscope for the presence of adult worms. And no, I didn't use my own pots either! Jeremy and Steve also got in on the act on the last night and can now do a fair sort of sample collection.

On Wednesday at 1600hrs our trusty chopper (the Sikorsky S61) was supposed to arrive to take us back to MPA. We went hunting in the morning then packed everything up ready to go to the helipad. During the afternoon we met a couple who are travelling around the world in a 40 foot yacht. We contacted MPA via the yacht's radio but the message duly arrived back that there was no flight scheduled for us that day so we unpacked again.

We contacted MPA again on Thursday morning and were told that we would be picked up at 1120hrs. The helicopter arrived on time and hauled us away in very rough winds. We arrived in one piece at MPA at 1240hrs and headed back to Stanley with our trophies.

The hunters brought us 31 foxes in the 3 days. Several brushes were kept for the Stanley Museum and 30 faecal samples were brought back to the lab for Elisa testing. If any of those samples prove positive on Elisa, they will be sent off to the UK for confirmation by PCR analysis. This is the second lot of foxes we have analyzed in the last 6 months. We need lots more foxes for our statistics to have any real meaning so the exercise will be repeated at a later date, as well as collecting foxes from other islands. If no positives are found then we may be able to conclude that foxes are not the reason why Hydatids continues to exist in the Falkland Islands. These animals are geographically remote from any of the farms which had positive findings in sheep last season; therefore the likelihood of the foxes being to blame seems an unlikely scenario, although sheep from Weddell Island have been sent to mainland farms in the past.

The whole team sends heartfelt thanks to everyone who helped make the trip possible and successful. It was a worthwhile trip and the whole team functioned well as a unit. Many thanks to all of you for your efforts in the name of science.