

THE WOOL PRESS

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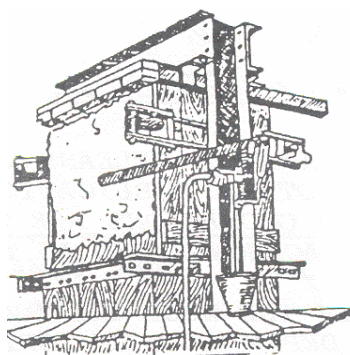
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Edited By Tracy Evans

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EDITORIAL

As noted in the pages of this edition of the Wool Press, Tom McIntosh and Matthew McNee are due to join the department imminently as Senior Agricultural Advisor and Agronomist respectively and we look forward to their arrival. We also welcome Dani Baigorri and Mike Davis in Biosecurity and Kattrice Berntsen to the Veterinary department. There is some way to go to spring proper with snow about at the time of writing. As everyone limbers up for another production season the nature of what type of Brexit will come to pass, is as uncertain as ever. On the one hand virtually everyone professes to want a Brexit involving some sort of deal, on the other hand a no-deal Brexit looks ever more likely. Only the 31st October may tell. There is a view, possibly even an assumption, that if the UK leaves with no deal that it will only be a matter of time before a deal is concluded. The postponement of Brexit from March to October has given more time for Falkland meat and fish to enter the EU on existing pre-brexit terms, including the 56,000 tonnes of calamari from the first season. The second calamari season is underway and much of the catch should reach Europe before 31 October.

Talking of trade deals or lack of them the other potentially momentous trade deal not so far from this neck of the woods is the EU-Mercosur Free Trade Agreement. The agreement was reached in principle in June this year almost exactly 20 years after negotiations first started! Some reports suggest the lengthy negotiations were due to resistance from EU beef producers. According to EU information the EU currently imports some 200,000 tonnes of beef from Mercosur of which around a quarter enters with a 40-45% tariff. Under the recently announced agreement the EU will allow 99,000 tonnes of beef (55% “fresh”) to enter the EU with 7.5% duty. This represents 1.2% of the total EU beef consumption of 8 million tonnes per year. For Mercosur the deal eliminates tariffs on 93% of exports to the EU and gives ‘preferential treatment’ to the remaining 7%. It eventually removes duties on 91% of goods that EU companies export to Mercosur. It should eliminate some \$4.5 Billion in trade duties for EU companies.

The Agricultural & Horticultural Board in the UK says a no deal scenario will be challenging given that the 90% of total beef exports which get shipped to the EU will have tariffs imposed on them. Additionally there will be the added competition from Mercosur. They also say that the fact that the UK is a net importer of beef offers some respite to domestic beef prices. That may also be a fact for the Falklands to hold on to. Other aspects of the EU-Mercosur example are less reassuring, including the time taken to reach a deal and the fact that it is not yet a ‘done deal’. According to reports a number of EU farming unions feel that agriculture has drawn the ‘short straw’ in the Mercosur agreement. In the UK it potentially adds uncertainty on top of the Brexit process. Despite that in a recent poll of UK farmers conducted by Farmers Weekly a ‘no-deal’ Brexit was still the most popular single choice, although only marginally so.

John Barton
Director of Natural Resources

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The Veterinary Department welcomes Kattrice Berntsen to their team, here is a little bit from Kattrice about herself.

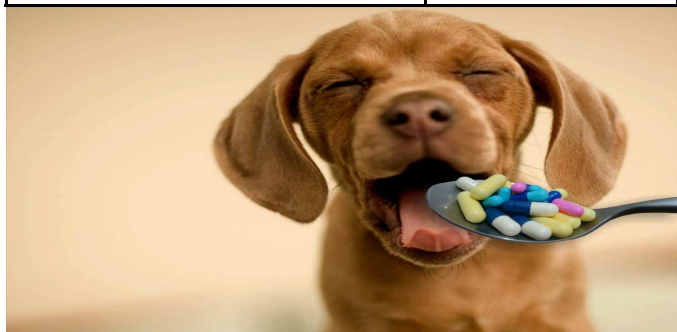
I have recently returned to the Falkland Islands for a year-out, after completing a two year course at Sparsholt College, studying a Level 3 Advanced Extended Technical Diploma in Animal Management; of which I achieved a Distinction in my first year of study. I'm currently awaiting my final results.

During this year of return I am working at the Veterinary Department, in the role of a Trainee Veterinary Nurse. This position is allowing me to gain valuable skills and aptitudes within the veterinary industry; furthering my experiences and knowledge in the career I aspire and strive to pursue. Upon concluding the year-out I am looking to return to the United Kingdom and attend University to study a degree in Veterinary Nursing.

So far, within my job I have had the opportunity to assist with a dog hip stabilization surgery utilising the toggle pin method post-dislocation after a road traffic accident, as well as an out of town trip to check-over an injured horse, including; many other surgeries and cases and I look forward to what might come next.

DOG DOSING DATES FOR 2019/20

Date	Drug
Wednesday 9th January 2019	Drontal
Wednesday 13th February 2019	Droneit
Wednesday 20th March 2019	Droneit
Wednesday 24th April 2019	Droneit
Wednesday 29th May 2019	Droneit
Wednesday 3rd July 2019	Drontal
Wednesday 7th August 2019	Droneit
Wednesday 11 th September 2019	Droncit
Wednesday 16 th October 2019	Droncit
Wednesday 20 th November 2019	Droncit
Wednesday 18 th December 2019	Droncit
Wednesday 9 th January 2020	Drontal



NOTICE

To reduce our environmental footprint, the Wool Press is now printed in this smaller size.

The Wool Press can also be accessed online via the DoA Website & the DoA Facebook page.

Regular weighing - it is important to keep a check on dog's weights to ensure correct dosage is being given.

All dog owners are responsible for worming their own pets. Please remember to contact the Veterinary Office and confirm this has been done. After normal working hours, please leave a message or email.

The Falkland Islands Government

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Vacuum Packing Does Save Money!

By Lucy Ellis

In the May-June 2018 issue of the Wool Press, there was an article titled "Air Costs Money!" covering our innovative idea of vacuum packing all wool samples being sent to the New Zealand Wool Testing Authority laboratory in an attempt to reduce air freight charges for our farmer clients.

Based on the experiments carried out and conclusions reached, we purchased a Webomatic SuperMax I vacuum packing machine and SealedAir vacuum pack bags.



Webomatic SuperMax I

Our first issues were to see if the vacuum bags would fit onto the chute of the core/grab machine and be able to withstand the air pressure when the core was extruded from the core pipe as we had some reservations regarding rigidity of the fabric causing the bags to split and whether the seams would hold. As it turned out the bags, even though tight, fitted the chute perfectly and



Vacuum bag taking the air pressure from the core/grab machine

had no problem with the air pressure.

Unfortunately, the machine and bags did not arrive at the start of coring so we cannot run a full price comparison for the 2018/19 season on air freight savings but we do know that with the vacuum packed

samples we saved approximately 30% on air freight charges.

Just to give a couple of examples of the difference, here are a couple of Air Way Bills



Core/Grab machine all set up with vac pack bag attached

with similar numbers of samples:

Shipment #7: (Not vacuum packed)

3 parcels: 23 cores, 24 mid-sides & 14 grabs

Parcel 1 – 12.25kg actual weight but charged on 17.4kg volumetric weight

Parcel 2 – 10.05kg actual weight but charged on 17.4kg volumetric weight

Parcel 3 – 9.35kg actual weight but charged on 17.4kg volumetric weight

Total actual weight = 31.65kg = US\$316.50

Total volumetric weight = 52.2kg = US\$522.00

Excess charges due to volumetric weight = US\$205.50

Shipment #9: (Vacuum packed)

2 parcels: 28 cores, 63 mid-sides & 13 grabs

Parcel 1 – 27.15kg actual weight which we were charged on

Parcel 2 – 11.31kg actual weight which we

were charged on

Total weight = 38.46kg

Total charged = US\$384.60

There are a few observations to make apart from the direct cost in savings to clients:

1. As shown above, even though the 2 shipments are similar Shipment #9 had more samples, weighed more but was compressed into just 2 boxes.
2. Previous to vacuum packing the process for shipping was by squashing as many samples as possible into sacks and compression strapping them as tightly as possible creating oddly shaped unsatisfactory parcels causing volumetric weight charges.
3. Vacuum packing enables us to use boxes which are pretty uniform in size, can be packed tightly with the samples leaving no/minimal air pockets and is an easy and quick system whereas the strapping system was frustrating and time consuming.
4. The DoA gained by time saved and staff less stressed.
5. From observations so far, there are small but significant savings made on the core samples but big savings on the mid-side samples. The reason for this is that a core sample is just that: one single core sample whereas mid-side samples are bags of multiple samples from a particular grower which could have anything from 10 to 50 samples per bag. Each mid-side sample is full of wool and air and there is air between each sample in the bag making it nearly impossible to totally extrude all air manually but simple with vacuum packing.

Mid-Side Sample Comparisons -



One mid-side sample rolled up and secured with a rubber band approx length 20-21cm, 4.5cm wide and 3.5cm in height



Eight mid-side samples rolled and secured with a rubber band, after being vacuum packed approx length 17cm, 10cm wide and 4cm in height

Core Sample Comparison -



Left - two core samples both of 1kg in weight demonstrating the huge gain to be made in vacuum packaging



Picture 1 on the left shows the core samples pre-vacuum packed and picture 2 on the right shows the same samples vacuum packed

Department of Agriculture *Webpage*



Falkland Islands Government
www.fig.gov.fk/agriculture





Wool Warehouse Guidelines & Fees

- Book all bale deliveries at least 24hrs (during working hours) in advance. WoolCo reserve the right to refuse unloading of any bales which have not been booked.
- Notice to be given to the office, not just the warehouse. Part of the FIPASS tenancy agreement is we are to give Atlink notice of all bale deliveries expected.
- Bale specification sheet/delivery note in advance or with bale delivery.
- If not for testing, please give shipping instructions (FIC or SAAS).
- Hauliers to wear high vis.

[illegible]

Below are the fixed warehouse/testing fees for all non WoolCo members. As of the 15th September 2019 an unloading of untested bales fee will be introduced. This is for bales delivered to the wool warehouse which are not using the local testing facilities.

Non-member warehouse fees

- <4 bales coring = £20
- >5 bales coring = £25
- £15 per lot for grab sample
£3 per bale unloading for non-tested bales

If you have any queries on the any of the information above please do not hesitate to contact the WoolCo office on 22297 or trading@wool.fk

BALE DELIVERY NOTE			
Farm Brand			
No Bales			
Number	Description	Weight (KG)	

Saladero News

By Mandy Ford

For the first time in 2 years Saladero completed a full AI Programme with Dr Michylla Seal.

Before we started, Mic spent time here teaching me how to train rams for semen collection for fresh AI. We also trained a ram from North Arm for the same purpose. Then 2 of the rams from Saladero that were trained were sent to North Arm to use for fresh insemination and also 2 went to Goose Green.

We had a training day here on the 16th May for farmers who may also be interested in learning how to train rams for fresh collection. 11 farmers came and took part on the day, and to also have other discussions with Mic.

Mic advised on the best way to be sure your rams are ready for joining, BCS, Weight, Feet, Teeth and Testicle condition.

It was a busy time leading up to AI, injecting teaser ewes, inserting cidrs, then taking them back out. I joined all other ewes that were not in the AI programme a week before AI started.

On the 27th May 284 ewes were inseminated with semen collected from 2 rams chosen from Saladero, and on the 30th 279 ewes were inseminated with frozen semen.



2 of the rams that were trained for fresh collection

Scanning will take place around the third week of August, Jimmy who comes to work with Hew Grierson, will be scanning the ewes this year.

Importing Potatoes?

Many diseases have been unwittingly introduced to the Falklands by people planting Ware, instead of Seed potatoes. For those of you who don't know the difference (and you are not alone!):

- Ware potatoes are the type we buy to eat
- Seed potatoes are the type we plant

Ware potatoes can carry all kinds of diseases which might not make them bad to eat, but if released in to the soil could harm subsequent crops of potatoes and other vegetables.

Seed potatoes on the other hand, are produced in very controlled and clean environments from germ stock which is guaranteed free from diseases.

If you're thinking about importing seed potatoes to start planting soon, make sure you're not bringing in any unwanted diseases by following the Seed Potato Import Health Standard Rules. Firstly, apply for an import permit for seed potatoes from the DoA (costs £4.10).

The potatoes MUST be certified British seed potatoes and additionally must have been produced under the 'Safe Haven' scheme and bear the red tractor logo (see image). These can be bought in most garden centres and supermarkets.

The potatoes can either be brought back with you after a trip to the UK or can be sent by airmail directly to the DoA where a phytosanitary inspection will be performed to double check that they are pest and disease free, before they are passed on to the



customer.

Importing quality seed potatoes is easy and cost effective. The greater choice of seed potatoes available in the UK allow people to experiment with new varieties and find new strains which will thrive in our soils.

For full details, or to apply for a personal seed potato import permit, contact the DoA.

To apply for an import permit, contact:

biosecurity@doa.gov.fk or

biosecurity2@doa.gov.fk

Or call: 27355



Random Farming Facts

- ♦ Bananas are the number one fruit crop in the world. They are the 4th largest overall crop, after wheat, rice, and corn. India grows more bananas than any other country. The Philippines, China, and Ecuador are the next three top producers of bananas
- ♦ Pigs, a common farm animal, are thought to be the 4th most intelligent animal, after chimps, dolphins, and elephants. A group of pigs is called a sounder. Pigs can also run 11 miles per hour, which is faster than a 6-minute mile
- ♦ If you have a fear of chickens you may be Alektorophobic
- ♦ Livestock farming feeds billions of people and employs 1.3 billion people. That means about 1 in 5 people on Earth work in some aspect of the livestock farming
- ♦ Cotton Farming accounts for a quarter of the pesticide use in the world
- ♦ There are approximately 1 billion sheep worldwide and about 900 different breeds
- ♦ One pound of wool can make up to 10 miles of yarn
- ♦ On average a cow of about 1000 pounds will produce as much as a staggering 10 tons of manure each year

Biosecurity News

We welcome Dani and Mike to the Department of Agriculture as our new Biosecurity Team, here is a little bit about them both.



Hello, I am Dani Baigorri, I have a BSc (Hons) in Marine Biology from the Universidad Católica del Norte, Coquimbo, Chile. My studies focused in physical oceanography in the north of Chile. In 2014 I worked in the National Service of Fisheries and

Aquaculture (SERNAPESCA) in the Environmental Department and then I was reassigned as the officer-in-charge of the Statistics and Customer Service Department. I came down to the Falkland Islands in June 2016 and joined the South Atlantic Environmental Research Institute (SAERI) in the September as the BEST 2.0 project officer for the South Atlantic region. In 2019 while in SAERI, I updated the Sea Lion Island Management Plan and worked on a second EU funded project called MOVE as project officer. In August 2019, I joined the Department of Agriculture as the new Biosecurity Officer.



Tracy has asked me to write a paragraph or two introducing myself...so please allow me to take a few minutes of your time. I am Mike Davis, one of the new members at the DoA, employed as a Biosecurity Officer/Agricultural

Assistant. My history in agriculture is as a youth working on my uncle's dairy/arable farm in Oxfordshire. My

recent history in conservation/biosecurity involved two years with the St Helena National Trust working in both prevention and control of invasive species.

I retired from Dorset police in 2014 and after St Helena lived and worked in the Isle of Man, before arriving here in January this year as a result of my wife taking up employment with FIG. I have been patiently waiting for the right employment opportunity to come up, this job is like a dream come true.

My work attitude is 'can do' so please don't hesitate to ask.

In the few weeks I have been here, I have never felt so welcome.

Will I be able to provide the services that you and the Dept. would expect? I'll let you be the judge of that but suffice to say it won't be through lack of effort on my part.

We bid a fond farewell to Naomi Baxter and wish her all the best for the future in her new job, and look forward to seeing her around with the detector dog. Naomi has also written a farewell note.

Sadly, I'll be leaving the DoA at the end of July for a new venture. As I mentioned at Farmers Week I'm off to be trained as a dog handler in the USA so when I get back mid-October I'll be checking all the vessels bound for South Georgia to make sure they don't have any mice or rat stowaways.

Although I'm excited to be doing something new I am sad to be leaving the department. It's been an amazing experience doing a job with so much variety day-to-day. One day you'll be trying to identify some weird beastie and the next you'll be hauling marine settlement plates out of the harbour to see what's grown on them.

I have thoroughly enjoyed my time here and have learned a huge amount. Thanks to everyone who has helped me over the year and a half, it's been a great experience.

Agricultural News

We welcome Tom McIntosh and Matt McNee to the Department of Agriculture as Senior Agricultural Advisor and Agronomy Advisor, and we bid a fond farewell to James Bryan. Here is a piece from each of them saying hello and cheerio.



I would like to introduce myself - Tom McIntosh - as the new Senior Agriculture Advisor at the Department. I am looking forward to commencing work on Monday 19th August. I have an interest in how farming systems operate, how graziers manage

their land and animals, the way small communities work together and delivery of quality Ag services. Adam Dawes has organised a visit to some farms in late August, so I can meet farmers and learn about farming practices in the Falkland Islands. By then I will have met the team at the Ag Department. A trip to Uruguay has also been arranged for early September, which will be a great opportunity to get to know more farmers.

I have a background in agronomy in NSW Agriculture and currently manage an agriculture extension team of 5 for Murray Local Land Services based in Albury, NSW, Australia. My agronomy was based in a semi-arid remote part of NSW and I supported 70 farmers to run successful farms with a mixture of wool, fat lambs and cereal, based on research on farms. For the last 6 years my team of livestock officers, agronomists and Ag specialists have supported projects such as Lifetime ewe workshops, marketing of produce, financial benchmarking and best practice rice and cereal farming.

Communication is the key to a good Ag Department so I look forward to meeting all the people who contribute to farming in the Falklands, my email address will be tmcintosh@doa.gov.fk. This will be active from late August.



I would like to introduce myself as the new Agronomy Advisor at the Department. I am soon to depart Perth in Western Australia for Stanley, with my partner and three young children. I am thrilled to have been given this opportunity to work in the Islands. I began

working in agriculture in the sugar growing regions of Northern Australia before I transitioned in 2007 to crop and sheep production in Central New South Wales. There I completed my PhD in Farming Systems Research at Charles Sturt University and the Conservation and No-tillage Farming Association in the Wellington district. Animal Husbandry was the primary concern but there was emerging interest in the opportunistic integration of summer active annual crop/fodder species for grain, grazing and groundcover, which was the theme for my thesis.

In 2011, I took up the position of Research Manager for the Western Australian No-tillage Farming Association (WANTFA), a grower-led organisation with a membership of approximately 350 farm businesses. This was a hands-on role working with farmers to solve problems and implement a highly varied on-farm RD&E program. Changing rainfall patterns and shorter winter growing seasons worsened many challenges faced by farmers, including for the establishment of improved pastures and non-cereal species more generally. Much of my efforts were directed at identifying practical solutions and communicating the opportunities to profitably diversify crop and livestock systems.

I finished up at WANTFA in 2017 when I was

appointed as a senior researcher at the Centre for Crop and Disease Management, Curtin University, Perth. This allowed me to update with the latest knowledge and advances in agronomy. I undertook research on the recovery of plants from various forms of stress, which includes that caused by grazing animals. I was also involved in research to improve the outcomes from different forms of agronomic experimentation, ranging from glasshouse conditions to very large field scales meaningful to farmers.

I very much look forward to working with my new colleagues at the Department and supporting farmers to implement strategies for effective utilisation of pastures by grazing animals and to maximise returns on investment in fodder cropping and supplementary feeding. I'm also interested in any opportunities to be involved in horticultural production on the islands.

Please don't hesitate to drop in and see me when you are next in town or to arrange a visit to your farm. I can be contacted at mmcnee@doa.gov.fk and very much look forward to responding to your enquiries.

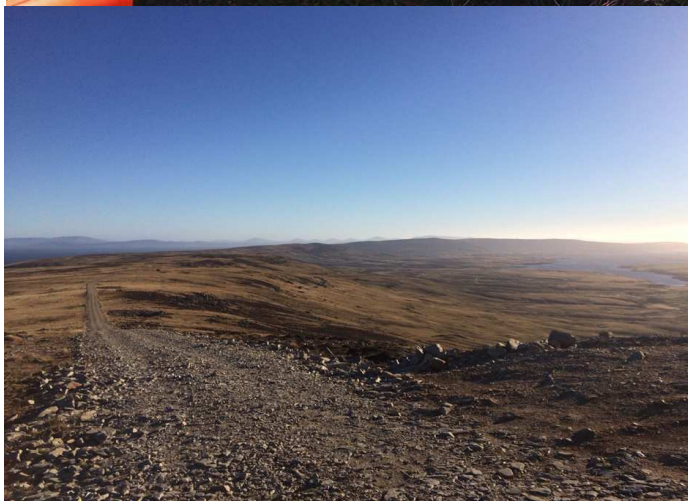
Farewell from James

Well, these 2 years have passed by very quickly! I have to say I have thoroughly enjoyed my time in these Islands, having met a lot of great characters and a lot of great farmers whilst I have been here. I have had the privilege of travelling over much of the Islands, and although there is still much I wish I could have seen, I feel grateful for what everyone has shown and told me about their properties and the history of the place.

I have learnt a lot about a completely different style of farming, begun to understand the challenges you all face on a daily basis when negotiating the climate, agronomic and nutritional aspects of farming in the Falklands. I can say that the Islands, with the state of current wool prices and what the world expects in terms of traceability of product and product stewardship will be in a great place going forward. Keep up the good work!

I am off to work for a seed company at home in New Zealand, as their North Island Customer Relations Manager, so a similar role to what I am doing here however with a sales aspect to it. I am looking forward to the challenge of getting back into the sales game, and dealing with a lot of my old clients and work colleagues again. If you are ever passing through or feel the need to get in touch, please do! My email is jameskbryan@gmail.com

Cheers
James



Recipes

MUTTON CURRY from Naomi Baxter

For 2 people
500g chopped mutton leg

Marinade:

5cm chunk ginger, grated
2 garlic cloves, crushed
1tsp turmeric
1tbsp veg oil
1 tsp salt

For the spice masala:

3 dried chillies
1 cinnamon stick (or ½ tsp dried cinnamon)
3 tbsp coriander seed
1 tbsp black peppercorns
2 tsp fennel seeds
1 clove
4 curry leaves

For the sauce:

60ml veg oil
½ tsp mustard seeds
8 curry leaves
3 dried red chillies (or tsp chilli powder)
1 large onion diced
2cm chunk ginger, grated
1 garlic clove, crushed
½ tsp turmeric
1 tsp ground black pepper
200g can tinned tomatoes
Fresh coriander (if you have it)

Mix all the marinade ingredients together in a large bowl, add the mutton and make sure it is all covered – cover and refrigerate for 2 hours.

Fry the spice masala ingredients in a dry frying pan for 1-2 mins until you can smell the spices. Remove from the pan and grind them all together to a powder.

Make the sauce by heating the oil in a pan, sizzle the mustard seeds, curry leaves and chillies (or chilli powder) for about 1 min. Add the onion and cook slowly until golden brown (10-15 mins). Add the ginger and garlic and cook for another 3-4 mins. Add a splash of water if it sticks. Add all the rest of the spices

(including the spice masala mix) and more water if it is sticking, cook for 10 mins, keep adding little bits of water to keep it from sticking. Add the chopped tomatoes and cook for another 10 mins.

Fry the mutton in oil for 4-5 minutes then add to the sauce with 150 ml water, turn the heat right down and simmer for 30-40 mins or until the meat is tender.

Dulce de Leche Pancakes **("Panqueques con Dulce de Leche")**

from Lilianna Pereira

Ingredients

1 cup Milk
2 tbsp Butter
2 Beaten Eggs
½ cup Flour
1 tsp Baking Powder
½ tsp Salt
1 large tub Dulce de Leche



Method

Heat butter and milk together, cool slowly and add the rest of the ingredients. Beat and blend until smooth.

Fry using a medium sized frying pan or one specially made for pancakes.

Heat the pan, lightly brush with melted butter, olive oil or cooking oil, just enough for the mix to slide easily and not stick.

Lightly brown on both sides, pile on a plate or dish.

Spread each pancake evenly with a medium/thick layer of dulce de leche, roll them up and stack.

Best served warm but still good when cold!!

Optional: after rolling, sprinkle with some sugar.

If you have a favourite recipe that you would like included in the Wool Press email it to Tracy on agassistant@doa.gov.fk

Autumn Pasture Management and Worms

Introduction

If I had to say when is the annual starting point for the chain of events that determine wool and meat production - that would be the beginning of autumn.

Decisions taken during autumn will have important and long lasting consequences. Once in winter it is too late, as nutritional and weather challenges are high and the possibilities to make important changes are low.

Opportunities and Threats

Although summer dry conditions impose a limitation over pasture growth, they also contribute to worm control through the cleaning action over the larvae population on the pastures.

Once in autumn, moisture and temperature bring the best combination necessary to resume pasture growth, and worms seize this advantage to recolonize the sward with fresh and abundant larvae population. So, the potential benefits deriving from autumn pastures, may be severely eroded by worms, whether we notice it or not.

Worm Damage

The main effect of worms on sheep are: inefficient absorption of some nutrients, loss of blood and tissues, depression of appetite and some interference with mineral metabolism.

High worm burdens, particularly when acquired in a short time, can cause physical weakness, wool fibre damage, dags and mortality, but important production losses (growth and wool weight) can occur long before we can detect any symptoms.

Main Objectives

Lambs weight and ewes body condition at the end of autumn will be directly related with future reproductive performance, growth and mortality; so during autumn, we should be mainly concerned about breeding ewes recovering body condition, and lambs growing as much as possible. To attain these goals

By Daniel Pereira

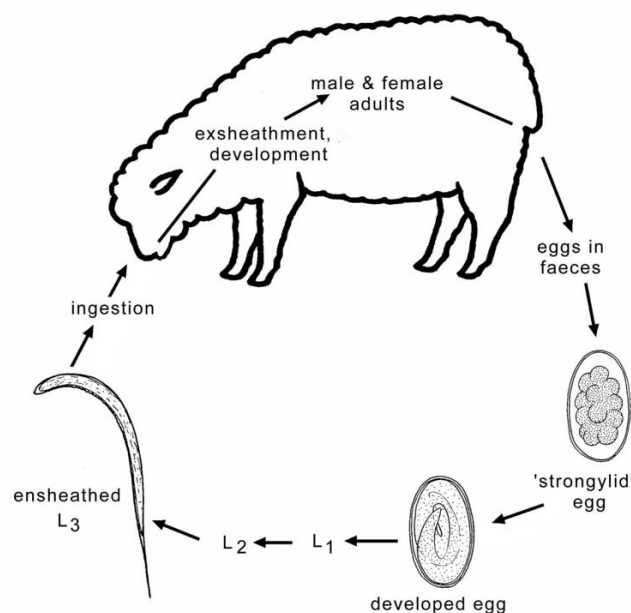
before winter, nutrition is the main driver (grazing management), but we must prevent worms from taking their toll.

A Different Approach

In this article, instead of considering the best grazing management alternative for worm control (provision of safe pastures/ low worm areas), I would prefer the approach of avoiding the worst situations (highly contaminated spots), which I will now describe.

The Worst Situation for Worm Damage

Crowding of worm susceptible stock, during extended periods on the same area, when the weather is warm and humid, creates the worst combination. This scenario will promote all the components of the worm cycle.



Lets now go through the different factors which may favour this condition and see what can be done.

- As we have mentioned, autumn weather is optimal for pasture growth, but also for larvae survival, and there is nothing we can do.
- Avoiding a rise in the number of susceptible animals: there is natural increase of lambs and lactating ewes, both being the most susceptible to worm

continued

infection. In reference to this, it is advisable not to delay weaning time once lambs have attained the minimum desirable weight. That would be a great help for ewes recovery and also beneficial to decrease worm challenge for their lambs.

- After weaning, these lambs should preferably not graze paddocks suspected of being highly contaminated. This will be the case of sites where young categories have been grazing for a long time.
- Preventing heavy crowding and overgrazing: weaning may determine the possibility of redistributing/spreading lambs at a low stocking rate, thus lowering the worm challenge. In rotational grazing systems the occupation period for each paddock should not be long.
- Normal husbandry practices such as shearing, joining and weaning, are situations which will naturally cause sheep crowding and exacerbate these situations.

Grazing Options and Worm Control

Stocking Rate

Stocking rate should always be a relevant factor as it is closely related to flock performance through food availability and worm challenge. Ideally it should be calculated over effective grazing area per paddock (adjusted for not usable land and/or partially rejected forage, such as Diddle-Dee areas, etc.).

As pasture management by itself is far from being the aim of this article we will only make some general comments just enough to get the whole picture.

Grazing Management

Controlled grazing management (Holistic, rotational, etc.) seek to increase pasture utilization, - as high numbers of sheep will be using them over a limited period of time - , and production: since pastures would be grazed to a certain height and the most productive and most palatable grass species will not be persistently overgrazed,

having a better chance to recover. The number of paddocks will usually be higher and the area of each one smaller.

We must remember that under continuous grazing systems, and particularly in large paddocks, sheep will frequently be changing their grazing sites, and thus performing their own and “natural rotation”, according to their preferences and behavioural patterns

When it comes to worm control, - except for some very particular tropical climates and situations -, controlled grazing management systems have not proved to be better than continuous. The main reason being that worm larvae survival time is usually much longer than the resting period of each paddock. Additionally, as the stocking rate per paddock is very high during the occupation period, parasites may potentially be a threat if they remain for too long at the same place. However, one advantage of controlled grazing systems is the possibility of spreading the worm eggs more evenly in the whole circuit area.

Under continuous grazing, natural preferences for spots of high quality pastures, as the “greens”, will probably induce overgrazing them for long periods, potentially being the source of worm problems.

Final Comments

As you can see, in this article we have highlighted pasture management issues, but we will be addressing some other aspects in future editions.

When there is a parasite problem on a farm, the urgent matter (curative) is to drench..., but the most important one (preventative) is the early detection of the problem, and the identification and correction of the underlying factors which led to and triggered the situation. Health planning and professional advice is essential in every farm, and autumn is a starting point. No drench can, in the long run, be sustainable without a good pasture management. Within this context, pasture management, faecal egg counts and strategic drenching at lamb marking and/or at weaning should always be considered as part of the plan.

2018-19 Wool Test Results

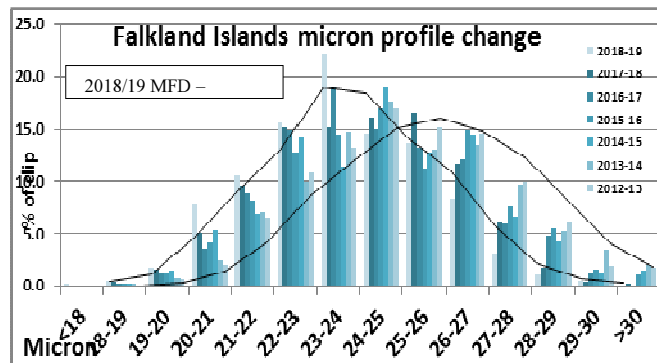
By Lucy Ellis

At the Department of Agriculture session during the 2019 RBA Farmers' Week, the Senior Agricultural Adviser, Adam Dawes looked at the Falkland Islands wool test results from the 2018-19 season with specific attention to additional measurements and what these mean going forward plus an overview of the recently adopted wool classing system.

To understand what these results show and how this affects what traders and processors are looking for and why we need to go into depth with each component.

Traders and processors need to have as much objective information as possible to allow them to buy with confidence and the only way we can ensure this happens is with additional measurements.

We have well documented evidence showing our micron profile decreasing gradually over the years, see graph below, plus the knowledge that micron is one of the main price drivers in the wool market however, to gain the buyer confidence we need to factor in the additional measurements from laserscan and the grab samples.



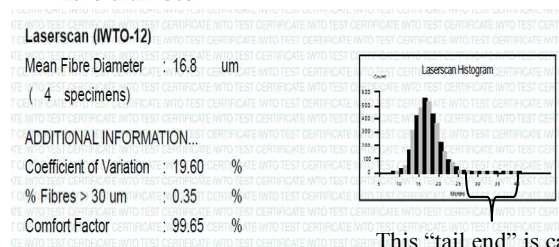
Laserscan:

Laserscan supplies data on micron, yield, colour and vegetable matter and, as opposed to airflow, also reports on Coefficient of Variation (CoV), % Fibres >30 um and Comfort Factor. These three extra readings tell buyers the extent of the spread of the fibre diameters in the Lot (CoV), % fibres over 30 microns and, from that, the comfort factor i.e. how itchy or not the fibre would be close to your skin (the figures for % fibres > 30 + comfort factor = 100).

Looking at the data set from all Falkland Islands wool cored in the 2018/19 season it reveals that the bulk of the clip, 43.5% , is in the micron CoV range (%) of 24-26%. Realistically, the clip needs to have downward pressure on the CoV to get closer to or below <20% to show less range in micron variability, see the Histogram table below. The positive thing is that we know we are doing this with the genetic changes within the national flock and with time the CoV will be lower.

Laserscan

- Developed by CSIRO to accurately measure fibre diameter



This "tail end" is causing the high CVD reading.

CVD results

CVD range (%)	% of clip
<15	0.0
15-20	0.0
20-22	3.4
22-24	27.1
24-26	43.5
26-28	21.0
28-30	4.2
30-32	0.7
32-34	0.0

Moving to have Falklands wool tested by Laserscan as opposed to Airflow has assisted marketing efforts and allows the wool to be purchased on the same basis as wool from Australia, South Africa and to a certain extent, New Zealand. Additional measurements has given traders and processors more confidence in predicting the processing performance of the wool and has brought nothing but positive comments from within the wool processing industry.

continued

Staple Length (SL), Staple Strength (SS) and Position of Break (PoB)

Staple strength is the major raw wool characteristic influencing the mean fibre length in the top and the efficiency of processing in combing mills and along with fibre diameter, staple strength is the most important characteristic in determining clean fleece price.

Length

Looking at the profile of the Falkland Islands clip from the 2018-19 season, we can see from the graph, Table 1, below that staple length has increased year on year with just over 50% now in the >110mm bracket which could cause concerns with some processors as it is seen as “over long”. However, in Table 2, the Coefficient of Variation in Length (CVL) shows downward pressure is being applied on the clip with the bulk of the results trending towards the <12 to 13-17 side of the graph in Table 2. This length issue is down to genetic influence, which is recognised, so increasing pressure will be applied to reduce this trend.

Table 1

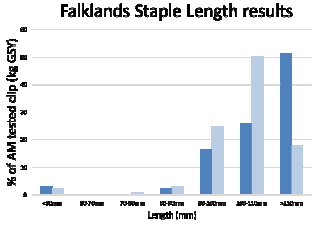


Table 2

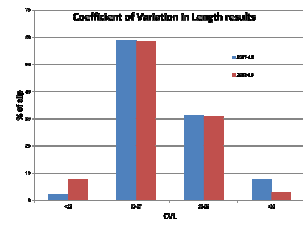


Table 3

Co-efficient of Variation for Length	
12% or less	Excellent uniformity
13—17%	Good to average uniformity
18—22%	Increasingly mixed for uniformity

CVL is a major factor in processing as it will affect the end product. The greater the variation in staple length, please see Table 3 above, will cause “pilling” in woollen garments—those small round balls of wool fibres appearing on the surface of the garment. This will negatively affect the price paid for those wools with a higher CVL reading. Looking at the two CVL test certificates below the one on the left has a CVL of 14% which is Good to Average in Table 3 above whilst the one on the right, at 20%, is Increasingly mixed for uniformity which would result in a poorer end quality product.

Length/Strength (IWTO - 30)

Mean Staple Length (63 Staples) 87 mm
Coefficient of Variation Staple Length 14 %

Length/Strength (IWTO - 30)

Mean Staple Length (65 Staples) 108 mm
Coefficient of Variation Staple Length 20 %

Strength

It has long been mooted that Falkland Islands wool has been tender however, from the graph and test results below it is plain that they are anything but and the trend is moving to the 35-42/>42 strength and away from the Tender end of the scale (14-28), please refer to Mean Staple Strength Table.

Table 1

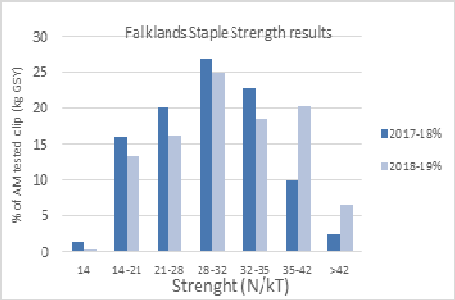


Table 2

Length/Strength (IWTO - 30)			
Mean Staple Length	(63 Staples)	87	mm
Coefficient of Variation Staple Length	14	%	
Mean Staple Strength (62 Staples)	36	N/Kt	
Distribution of position of break			
Tip:	3%	Middle:	6% Base: 91%

Table 3

Length/Strength (IWTO - 30)			
Mean Staple Length	(65 Staples)	108	mm
Coefficient of Variation Staple Length	20	%	
Mean Staple Strength (63 Staples)	33	N/Kt	
Distribution of position of break			
Tip:	19%	Middle:	40% Base: 41%

Mean Staple Strength Table;

Less than 25 N/ktex	Usually Tender
25-30 N/ktex	Tender/Sound
>30 K/tex	Increasingly Sound
>40 N/ktex	Very Sound

Increased staple strength could be caused by many factors but it is worth considering how sheep numbers have decreased since farm sub-division. The cut in numbers has meant that there is now a more realistic DSE/Ha leading to improved nutrition for sheep hence better test results. Genetics do pay a part in this too and with continuing genetic

programmes bringing in the right genetics that suit our environment and breeding goals gains in not just staple strength should be seen.

Position of Break (POB)

Position of Break indicates to the processor where fibres are likely to break during processing and how much fibre will be lost as card waste or noil. Low mid-break wools are preferred by processors as they give a longer average length in the top plus there could be premiums paid.

Example 1

Mean Staple Strength (62 Staples) 42 N/Kt

Distribution of position of break

Tip: 19% Middle: 55% Base: 26%

Example 2

Mean Staple Strength (56 Staples) 24 N/Kt

Distribution of position of break

Tip: 21% Middle: 52% Base: 27%

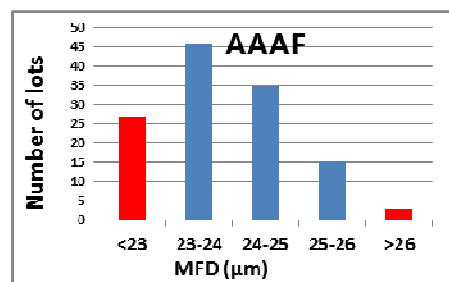
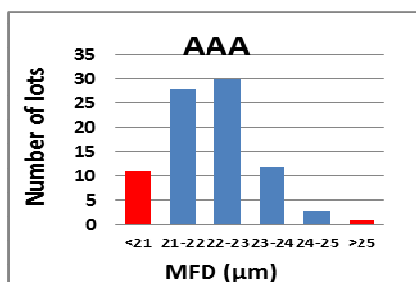
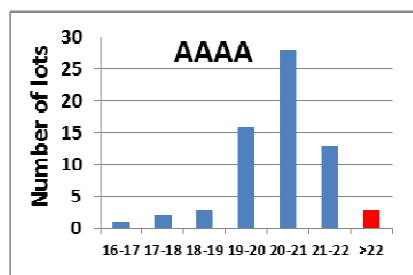
Strength also plays a part in the equation and by looking at the 2 examples below it is easy to see why: Example 1 has a mid-break of 55% but also has 42 N/ktex strength so processors would pay good money for that wool as they will be confident that the strength of the wool will keep breaks to a minimum. However, in Example 2, even though the mid-break is slightly lower, with only a 24 N/ktex strength that wool is Tender so would incur a discount as it is likely to break during processing.

One final observation regarding the additional measurements is that they are a valuable management tool for growers: if there is a high % of CVD in a line of wool, why is that, is it age, genetics, poor nutrition or something else? Tender wool and a high mid-break, what happened at the time of the fibres thinning, weather, ill health, pregnant ewes or poor nutrition? High COV Staple Length, why so much variation? Mixed ages in the line of wool, genetics, bought in sheep? The list is endless but it is a very valuable tool.

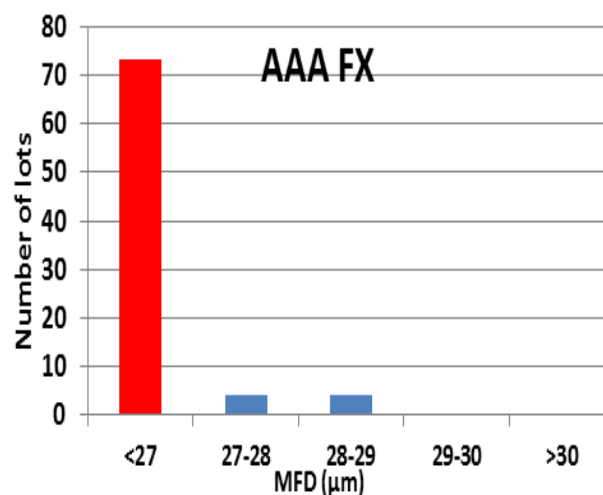
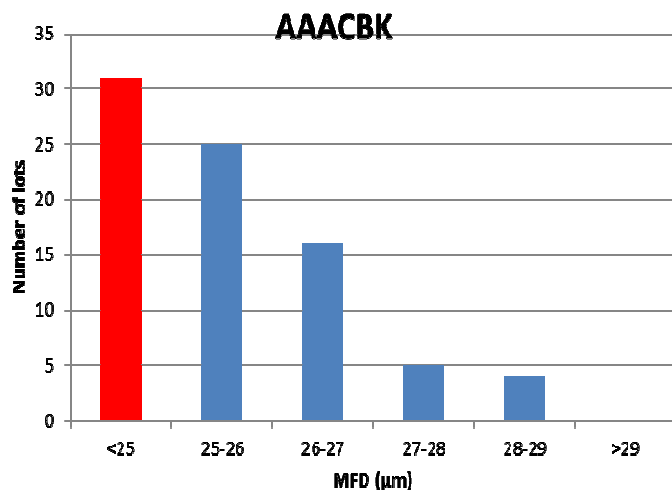
Recently Adopted Branding System

The adoption and transition to the new branding system has been a huge success and has to be applauded but there is a little bit of work to do.

Looking at the graphs below it is apparent that there is a little bit of confusion with those fleeces that are at either end of the micron range per description. The finer wools have just about been cracked but as the fleeces lean towards the coarser end of the scale the disparity in classing decisions become more obvious. I'm sure that with the assistance of the data from the test certificates these errors will become a thing of the past



continued



And finally, where to from here?

The 2019-2020 season testing is to remain largely unchanged though there will be a slight increase in NZWTA testing fees of 1.2%.

The DoA has had to contract out the core sampling officers position so there will be an additional 50% increase in the DoA charges per Lot (approx £5/Lot).

From feedback from buyers and processors it is recommended that all <26μm lines continue to be additionally tested and some serious thought should be given to testing on PCS, NKS and BLS although it is recognised that if the cost is prohibitive for smaller lines it may not be a viable option.

The OFDA machine will be here very soon so there is the option of testing mid-side samples with that rather than sending to NZWTA. However, the OFDA cannot test for yield but it will test for mean fibre diameter, standard deviation (SD), coefficient of variation (CV), comfort factor, curvature and spinning fineness. The cost of the test is expected to be in the region of 16% of the current price.

As it is coming up to lambing season Veterinary Officer Zoe Fowler thought it might be a good time to re-print the below article, it was first put in the Wool Press in September 2007.

REDUCING 'BLOAT' IN HAND-FED LAMBS

By Zoë Fowler

An article in the July 2007 Vetscript from New Zealand caught the eye of us here in the veterinary department and we thought we would share it with you since lambing time will be upon us before we know it.

A farmer from New Zealand, fed up with losing hand-fed lambs to bloat, ended up contacting a Norwegian farmer and the Norwegian school of veterinary medicine for help (a high incidence of abomasal bloat has been reported in 15-30 day old lambs in Norway!)¹. This novel Norwegian idea of using a more yoghurt like feed for lambs instead of milk replacer has been used by farmers and vets alike in New Zealand with bloat and scour cases being much reduced.

Abomasal bloat occurs in lambs being fed milk-replacer. Warm milk entering the abomasum (the 'true' stomach) provides the bacteria present (it is thought that *Sarcinia ventriculi* and *Clostridial* species are the main culprits) with an excellent environment for fermentation. Fermentation produces much gas which then causes the abomasum to expand. Lambs can become really distended within 1 hour of feeding and die quickly from abomasal rupture or from the extreme pressure on the organs of the abdomen and chest. Typical treatment includes using a trochar to release

the trapped air but often it is too late for successful treatment so prevention is definitely better than cure.

Yoghurt containing *Lactobacillus* species ('good' bacteria) theoretically provides a stable environment in the abomasum that prevents the 'bad' bacteria colonising and multiplying in the gut. *Lactobacilli* are also said to improve immune function.

Ideal early feeding strategy for artificially reared lambs

On the day of birth try to give up to five feeds of colostrum if possible (ewes or cows) – about 600ml for a 4kg lamb (or 15% of the lambs body weight).

If you have fresh/frozen/powdered colostrum available then feed this on days 2-4 also. If lambs have had a feed of colostrum from the ewe they can go straight on to the yoghurt feed. If you have no colostrum and don't think the lamb will have had any from the ewe just start feeding the yoghurt on the day after birth and feed milk on the day of birth.

Yoghurt recipe for small numbers of lambs (under 20)

- Put 3L of warm water (40°C) in a 9L bucket
- Add 1kg calf milk powder. Mix with an electric stick blender. They recommend calf milk simply because it is cheaper. You can use lamb milk powder if you prefer. Fresh cows milk is also fine to use as long as it has no antibiotic residues as these will kill the 'good' bacteria.
- Add 200ml of acidophilus yoghurt. Mix, then cover with a lid or sheets of news paper. The yoghurt produced at the Dairy contains acidophilus, make sure you get natural flavour. Lamb might not like strawberry!
- Keep the mix warm for the next few hours, if the air temperature is too cold the milk will take a long time to ferment. (They suggest using a brewer's mat that you can buy but not that many of us here make beer! Their other suggestion is putting the bucket in a polystyrene box with a lid with a hot water bottle as the heat source in the box. The airing cupboard may be another good warm spot).
- The yoghurt should set within 8-12 hours and may have a soft crust on top with some liquid at the bottom or may resemble thick commercial yoghurt.
- Top up with cold water to the 8L mark on the bucket and mix well. Feed in the same quantities that you would feed milk.

Remove 200ml of this liquid yoghurt for use as the starter for the next batch. There is a recipe for really large numbers of lambs as well which I can provide you with if you want it – just give me a ring on 27366.

Points to remember:

- Replace every milk feed with this 'soured' milk.
- Have a gradual transition from feeding warm to cold liquid yoghurt over a period of 4-5 days.
- Introduce the liquid yoghurt to lambs from 5 days of age, although it can be given to lambs from 2 days old if insufficient colostrum is available.
- Treatment is effective under either ad lib or set feeding regimes (eg 1-2 times a day)
- Treatment does not add a lot of extra expense.

The New Zealand farmer that started using this regime stopped abomasal bloat and scours completely by feeding yoghurt and she raises 100 lambs artificially each season. Lamb deaths were reduced from 25% to 3%. She feeds the lambs meal, hay and water along with the yoghurt but if you have decent grass for them to nibble that will be just as good as hay and meal. Make sure there is always a plentiful water supply.

Any further questions? Call 27366.

References

1. Lutriases B. and Simenson E. (1982/83) *An epidemiological study of abomasal bloat in young lambs. Preventative Veterinary Medicine* 335-45

It is fast approaching the beginning of a new breeding season, so with the imminent arrival of lots of new babies and potential orphans Zoe has provided a recipe list of useful milk replacer recipes for various animals. We hope you find it of some use.

Puppy milk replacer	<p>½ cup evaporated milk (less likely to cause d+ than cows milk)</p> <p>½ cup boiled water</p> <p>1 teaspoon glucose</p> <p>1 tablespoon plain yoghurt</p> <p>1 egg yolk</p> <p>Feed 15-20ml of milk replacer per 100g of bw per day. Divide this total amount into 6 feeds per day.</p>
Kitten milk replacer	<p>Dissolve 1 small packet gelatine in 12oz boiling water and stir in:</p> <p>12oz evaporated milk</p> <p>2 tablespoons mayo</p> <p>2 tablespoons plain yoghurt</p> <p>1 tablespoon olive or veg oil</p> <p>1 egg yolk</p> <p>Put in fridge to cool, it forms a jelly so you need to gently warm before feeding. Feed 1-3ml at the following intervals;</p> <p>1-2wks: 10 feeds in 24hrs at 2-3hr intervals</p> <p>2-4wks: 7 feeds in 24hrs at 3-4hr intervals</p> <p>4-5wks: 5 feeds in 24hrs at 4-5hr intervals</p> <p>Start introducing moist solids at 3-4wks of age</p>
Foal milk replacer	<p>3.5pints cows milk</p> <p>½ pint lime water (17g calcium hydroxide in 10L water – ask Gordon)</p> <p>2 tablespoons glucose</p> <p>6 drops cod liver oil</p>
Lamb colostrum replacer (v rich so feed for 24hrs only then use milk replacer)	<p>1 teaspoon butter in a bottle and sit in warm water to melt</p> <p>Add 1 teaspoon treacle or molasses</p> <p>Make up to 8oz with evaporated milk</p> <p>Add soluble vitamins if you have them</p> <p>(this will not be anywhere near as good as ewe colostrum as it wont contain antibodies to protect against disease)</p>
Lamb milk replacer	<p>2L cows milk</p> <p>¼ cup cream</p> <p>1 egg</p> <p>Whisk egg and cream together and add the milk</p> <p>Feed every 3-4hrs for first week</p>