THE WOOL PRESS

September/October 2021 Volume 331

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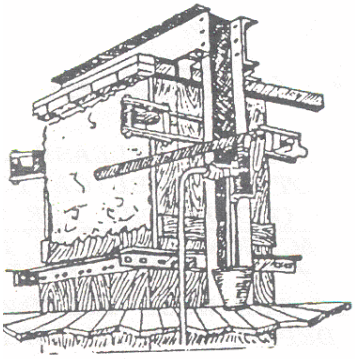
In this issue...



Edited By Richard Chivinda
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EDITORIAL

Welcome to the latest edition of the Wool Press. The new farming year is underway and the main lambing period will soon be upon us. Plenty of sheep have already been shorn and the reports back so far appear to be quite favourable with very reasonable early spring weather. Long may it continue.

This edition of the Wool Press seems to cover 2 main areas – veterinary and environmental. On the veterinary side Zoe has written an article about how to look after your dogs in Camp and what to look out for prior to contacting the vets. Sometimes a catastrophic problem will occur and you'll need to deal with the consequences on farm as there won't be an opportunity for the animal to reach the clinic in time or for a vet to reach the animal in time. You'll need to have a plan of action for this eventuality. I was just reading this week that over 70% of out of hour calls in the UK are unnecessary – pet owners phoning in the middle of the night to book a vaccination or to ask about worming products etc. Difficult to believe but that is the way things have gone in the UK; fortunately, we have not proceeded down that route here as yet. Phillip has been here for just over a year now and has had plenty to do with horses during that time. He has been researching the history of various conditions in horses over the past 100 years and has shared his findings with you an pages 7 and 8. Andrew has written his usual comprehensive review on what has been happening at Saladero in August and September.

The second theme in this edition consists of 3 articles looking at peatlands, wetlands and the results of a ditching questionnaire. The wetlands article is written by Steffi Carter who works at SAERI and she is trying to put together some baseline data on the condition of wetlands in the Islands so that these can be compared to any changes in the future as a result of climate change. Of course, farmers can deliberately change the nature of wetlands by altering drainage channels or introducing new ones. As these activities don't come without a cost in time and labour they will have been deemed to be of benefit to the farm and its livestock but the decision needs to be carefully thought about before proceeding so as not to cause any undesirable consequences. As answers in the questionnaire indicate some landowners are concerned about land drying out too quickly as a result of some drainage projects.

This is the first Wool Press put together by our newest employee – Richard Chivinda - and I think he has made a pretty good job of it. Well done Richard.

Wishing you all a very successful lambing and shearing season.

Steve Pointing,

Senior Veterinary Officer

DOG DOSING DATES FOR 2021/2022

Date	Drug
~~Wednesday 6th January 2021~~	~~Drontal~~
~~Wednesday 10th February 2021~~	~~Droncit~~
~~Wednesday 17th March 2021~~	~~Droncit~~
~~TUESDAY 20th April 2021~~	~~Droncit~~
~~Wednesday 26th May 2021~~	~~Droncit~~
~~Wednesday 30th June 2021~~	~~Drontal~~
~~Wednesday 4th August 2021~~	~~Droncit~~
~~Wednesday 8th September 2021~~	~~Droncit~~
Wednesday 13th October 2021	Droncit
Wednesday 17th November 2021	Droncit
Wednesday 22nd December 2021	Drontal
Wednesday 26th January 2022	Droncit

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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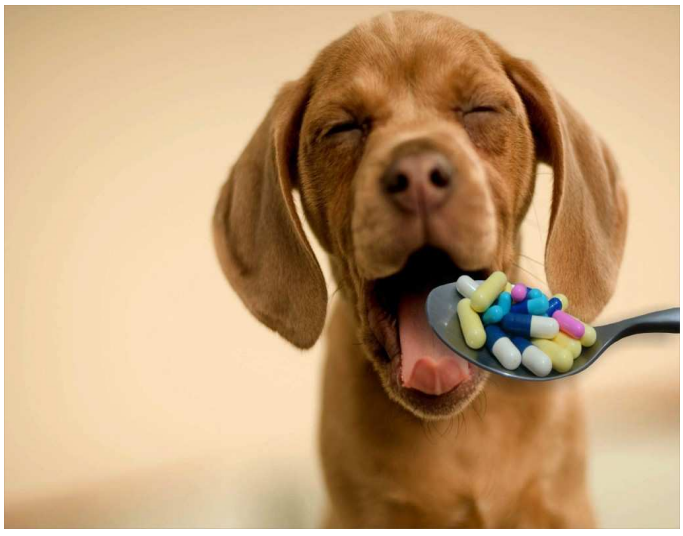


SEEN ANYTHING STRANGE LATELY??

IF SO CONTACT THE DEPARTMENT OF AGRICULTURE ON 27355
OR VETERINARY SERVICES ON

BULLS FOR SALE OR HIRE

Bulls for sale or hire from Blue Beach Farm. 100% Angus, fertility tested, bred for excellent growth, reproduction and flavour from Waigroup Angus New Zealand and further selected on the farm to thrive on native Falkland pastures by indexing progeny at 200, 400 and 600 days. Please let us know soon as we will not keep bulls if they are not required.

Canine Welfare and First Aid on Farm

By Zoe Fowler

In the last few months we have delivered some first aid refresher training to the Dog Section based at MPC and I thought I would publish the highlights and things which might be relevant to farm situations.

When giving advice over the phone and trying to assess whether you need to be arranging transport for a sick or injured dog to come for veterinary attention we are always going to ask questions and the more information you can give us straight away, the better.

First of all; what is normal? Some easy parameters to assess are respiratory (breathing) rate, pulse rate, mucous membrane (gum) colour and temperature.

Respiratory and pulse rates are measured in breaths or beats per minute. The easiest thing to do is to count how many breaths or pulses you see or feel in 15 seconds and times that by 4 to get your rate per minute (keeping a dog still to count for a full minute is sometimes not very easy and you'll keep losing count!)

Respiratory Rate: A resting dog will breathe 15-30 times per minute. Panting is a very normal response to exercise and heat but in a normal dog the normal resting respiratory rate should be resumed after exercise is over – always take into account what your dog has been doing when you measure the respiratory rate. Stressed and painful dogs will also pant excessively. Heart and lung disease will also increase the respiratory rate in resting dogs so if you are worried a dog is just a 'bit off colour' repeating respiratory rate measurements when the dog is resting is a good gauge of whether things may be normal or not. Dogs going into shock will have rapid shallow breathing.

Pulse rate: A resting dog will have a heart rate of 70-100 beats per minute depending on fitness, age and what they have been doing recently. Most people won't have access to a stethoscope to listen to a heartbeat but you may be able to see the heart beating, or feel it pulsing or feel a pulse in the femoral artery as in the picture below. A dogs heart sits fairly low in their chest and is best felt on the left hand side just in their armpit or just behind where their elbow naturally rests. This may be difficult in big or fat or very hairy dogs so have a practise finding their pulses on the inside of their thigh as in the picture – it feels just like your pulse in your wrist.

Pain and illness can increase pulse rates and dogs that are very ill will have quick weak pulses that will deteriorate to very slow heart rates.

Mucous membranes should be pink and moist and the colour of gums or the membranes in the eyes can give an indication of oxygenation and some medical conditions. If you push on a pink piece of gum with your finger you will notice that it 'blanches' ie goes white with the pressure of your finger. The pinkness should return to normal within 2 seconds. This is called capillary refill time and a slow refill time indicates very poor circulation. Which picture below looks normal to you?

I hope you said the middle one?! The first picture shows really red gums; this dog may be in severe septic shock, severe hyperthermia (way too hot) or is suffering from carbon monoxide poisoning. The very pale gums would be seen in severe anaemia, heavy bleeding, organ failure, hypothermia (very cold) or shock. A dog in severe respiratory compromise can look pale or have blue tinged membranes – their tongues can really go an alarming shade of purple. Some dogs have very pigmented gums which can make this assessment hard so gently pulling their lower eye lids down to look at the membranes there is another good option (but it is hard to check the capillary refill that way).

Normal rectal temperature for dogs is 38.6C. They can cope with quite a few degrees colder but this should be recognised and treated (injured or sick dogs that are hypothermic need to be tucked up warm). A body temperature lower than 28C is critical. Hyperthermia is if the body temperature is over 41C and if this is not treated quickly the outcome is usually fatal. Warming and cooling need to be done carefully and slowly, eg run cool water over paws etc rather than dump the dog in a stream – this can put the dog into shock. Buy a little digital thermometer just for animals, when you take a dog or cat temperature insert the thermometer just into their rectum and gently press the thermometer to the side so it is touching the internal wall of the rectum – otherwise you might just be measuring the temperature of a poo!

Injuries can look absolutely horrendous but not be life threatening but can also look innocuous and be very dangerous. The wound below on the left is large, but it is a skin rip only, it needs treatment but can be cleaned and covered and if the dog doesn't get to the vets for 24 hours or so it doesn't matter. The bite wound on the right, if over the ribs and making a hole into the chest cavity will mean your dog is in serious trouble. They will be having breathing difficulties, gums may be blue/pale and they need very close attention and you need to speak to the vets NOW. The dog on the left is probably running about thinking 'ooh my side hurts a bit' but nothing worse than that. So it is important to assess the dog as a whole and not just the wound.

The most important treatment for any wound is cleaning. Copious amounts of clean water is all you really need. Trim hair with scissors or clippers if you can and then flush flush flush. If you have a syringe to really flush with some pressure all the better. If you have some dilute antiseptic to use you can but it must be dilute. Avoid purple sprays, wound powders and dirty water, they can all contaminate a wound more. If a wound is bleeding briefly flush and apply some pressure. Nappies or sanitary pads make excellent absorbent wound dressings, hold in place with a bandage. You should be able to easily wriggle a finger in under a bandage, if you can't it is too tight.

Most wounds where little skin vessels are damaged will stop bleeding in 5-15 minutes with some light pressure so give yourself a little time to assess the wound. Heavily bleeding wounds need continuous pressure and if bleeding is coming through the dressing and bandage apply more on top without removing the lower dressing – and give us a ring! These days the benefits of being able to email a photo to us for comment is very useful. Injuries from being run over can be harder to assess as the injuries are not always on the surface. Check gums, heart rate etc. As well as obviously injured limbs – broken bones are not usually life threatening, internal bleeding is.

Dogs that are sick as opposed to injured can be harder to assess as obviously there are many things that can happen. We're going to ask you about vomiting, diarrhoea, appetite, thirst and demeanour so make a point of knowing what is normal for your dogs and looking in cages and supervising them closely DAILY. Un-neutered females can get uterine infections so check under tails for vaginal discharge, know when bitches are in season and watch older entire males carefully as prostates can get very enlarged and block off normal urination and defaecation. If you live remotely where daily access to town is not guaranteed then BE PREPARED.

- Have a vet box that includes, at a minimum, pain relief and antibiotics that can be used in dogs as well as antiseptic flush, dressing and bandages. A thermometer that can be used for rectal temperatures is also really useful. There is a well-stocked vet chest at Fox Bay that has a variety of medications available but not bandages etc so if would like your own supply please let us know.

- Dogs should be seen and fed daily, supervised and assessed and let out of cages for a leg stretch daily if not working. Rest days without hard exercise are fine but continual caging is poor welfare and doesn't allow dogs to perform normal dog behaviours. Know what's normal for your dogs, look at their gums, poke their tummies, check vulvas, assess normal dogs so you know when things are not normal.

- Prevent incidents occurring! OK this one is obvious but knowing when bitches are in season which may lead to dog fights or unwanted pregnancies is essential. Womb infections occur most commonly 8wks after season at the same time pups would be expected. Puppies or older dogs that are slowing down won't have the spatial awareness of zippy sensible adults around vehicles. Ensure all poisons and toxins are not accessible and not spilt. Ensure cages are in good condition and secure with safe flooring. Know more about dog behaviour and welfare – dogs that escape or trash kennels are not naughty or bad. They are stressed or bored at being confined or have separation anxiety and probably need some more specific attention or training. Sort these issues before you find your dog hanging by a back leg.

- In extreme circumstances, be prepared to perform humane destruction on your farm. Making animals dead is no fun; I know it isn't, but leaving a suffering animal to die on its own is worse. If using a gun on your own dog is just not an option for you, ensure there is someone who can come and help you but you MUST be prepared to arrange this if transit to town is not possible. FIGAS ALWAYS make the effort to retrieve animals within normal flying operations but if it's dark or foggy or winter hours this may not be possible. A human medivac outside of normal flying operations costs FIGAS and thus KEMH <u>at least</u> £2000, a hidden cost we never see as we have the luxury of free health care in this country. Veterinary Services are pretty highly subsidised in some areas but not to this extent I'm afraid!

If you would like any more information about first aid, specific illnesses or canine behaviour please don't hesitate to contact the Veterinary Service on 27366 or zfowler@naturalresources.gov.fk

A Year in Review – Let's start with the Ponios…

Phillip Van Der Riet

Having landed on these Islands as a dewy-eyed tenderfoot, I now find myself with a full year of windswept exposure to reflect on, and to compare with my expectations. What shall I start with? The abattoir? ("Spare us!" – I hear your anguished cry!) The puppy pandemic? ("Where are the French Bulldogs!" – a solitary voice demands…) The guaranteed pathway to pasture improvement? ("Not my field!", I gloat – ((but that's my pun))).

How about the horses! Los caballos… The nags… The moneypits… The … (insert polite terminology here)….

Over recent months, I have made an effort to read a number of historical records of veterinary-related comment on the Islands, with the Department of Agriculture library a handy source of documents and of tea. In amongst the dry statistics (tensile strength of wool in 1997, anyone?) and formal reports (economic analysis of eye-wigging hoggets' for the insomniacs?), there are hints of interesting, frightening or inspiring events that occurred with the health and welfare of the Islands' animals, and their human overseers. However, in matters relating to the Islands' horses, the records are perhaps most notable for their paucity.

Records from 1846 suggest a population of about 3000 "wild horses" being present on the Islands, and of course horses were the most important aid to farm mobility on the Islands until the introduction of motorbikes and quad bikes from the 1970's onwards. Subsequently, the working horse population has declined to negligible levels, but horses still play a very important cultural and recreational role. Not that many owners would consider the responsibilities that go with horse ownership recreational!
From a veterinary perspective, it has been interesting to experience how apparently hardy and independent the horse population is – or is this simply their owners?! This is particularly notable after a working life in the UK, where a huge population of horses have a highly "pampered" existence, with every tiny nodule, unusual step or unexpected flatulence demanding veterinary attention.

The historical records offer only occasional hints of the health challenges horses have faced on the Islands. Some reports are conflicting. For example, a report from 1911 suggested that many horses suffered from dental disease, and advice was given that "a little use of a tooth rasp would make a great difference to the health of the horses". Yet a report from 1974 considered that the coarse natural pastures made for good natural dental wear, and that "filing was often carried out unnecessarily and incorrectly, with potential for more harm than benefit". Similar conflict was evident in comment on horses' feet, with comments from 1912 declaring "many a good horse is ruined through neglect of it's feet", and from 1982 describing deep cracks in the hooves as being a "surprisingly infrequent cause of lameness". Undoubtedly, dental and hoof problems remain a challenge on the Islands today, as they are in equines throughout the world.

I think anyone with even a passing interest in horses will have encountered stories of the traditional local remedy for colic. That terrible equine condition, which drives a multi-million pound veterinary surgical trade in the UK and elsewhere, has seen treatment on the Islands with one bottle of gin administered orally – reportedly half a bottle for the horse, and half a bottle for the administrator. I cannot vouch for the efficacy of this remedy, but a colleague from 1983 considered that if benefit *did* result then it was likely due to a "relaxing effect on the small intestine". I'm not sure gin has that effect on me. Interestingly, I heard a comment not long ago that horses grazing near penguin colonies, perhaps only on specific locations on the Islands, were more prone to experiencing colic.

North Arm Nose is not a condition recorded in any text book I have come across, but in the past has been reported from across the Islands. I have it on good advice that this condition is far less common today, but the unusual nasal swelling, discharge and malaise that affect the afflicted do still occur. It does seem a distinct condition, and very different to the common streptococcal infection "strangles" that occurs in the UK and elsewhere. Also happily uncommon, or absent, on the Islands are the occasionally-cancerous skin condition "sarcoids", and – most surprisingly to me – the invariably-fatal "tetanus". Both of these conditions justify enormous effort and expenditure in the UK, the former in treatment measures and the latter in preventative vaccinations.

One condition that is increasingly recognised in the UK is, I believe, also prevalent on the Islands. Having spent one-and-a-half winters here, I have been pleased to see that horses retain good body condition even on apparently poor pastures. In fact, the only thin horses I have seen have been those compromised by age or disease, rather than by nutrition. However, I have seen a LOT of overweight horses, and although it is breed- and individual-dependent, obesity readily leads to Equine Metabolic Syndrome. This is a condition where unhealthy fat deposits produce chemicals that compromise insulin metabolism. Google will give the details, but the outcome is footsoreness, poor quality hoof growth, and even full-blown laminitis with pedal bone rotation or sinking. A horrible condition for the horse and only correctable – if not too advanced – by keeping bodyweight on the lean side. It does seem that the only mammals to enjoy obesity as a healthy option remain our sea-mammal friends.

An interesting point of comparison between horse management in the Islands and in the UK is the status of parasitism. Species of roundworms infesting horses of the Islands are reportedly similar to those encountered in the UK, but their impact on health is less clear. In the UK, most concerning are the small strongyle "redworms" that burrow into the intestinal wall to "shelter" through the winter, and then emerge to live attached to the gut wall in the spring. Their emergence can cause severe disease or even fatality. This condition is well documented, and treatment and management measures to deal with it are intensively researched. In the UK, these worms are believed to have developed almost countrywide resistance to the "white-wormer" fenbendazole. Experts at a talk I attended in 2019 considered that horses dewormed with fenbendazole, "may as well have been dewormed with water"! There is also great concern about emerging resistance to the dewormer medications ivermectin and moxidectin. Such is the concern, that there is talk of removing horse wormers from general public access - as with antibiotics - to try limit or slow down the emergence of resistance to the few useful drugs we still have. It would be very interesting to know what the situation is on the Islands.

Our domestic species are wonderful companions to our human endeavours, historically and today. Caring for them, as owners, as guardians or as veterinarians, is a responsibility and a privilege. Their anatomy and physiology is uniform across the world, but their adaptation to local circumstances is unique to each habitat. And the Islands are a fairly unique habitat. Local knowledge - as much as scientific progress and clinical effort - must be fundamental to their wellbeing. What can you tell me about conditions our horses encounter, and special aspects of their care in local conditions?

Any anecdotes, opinions or corrections will reach me at pvanderriet@naturalresources.co.fk

DATES FOR YOUR DIARY

Shearing Dates

Standard Shearing: November 1st - February 28th
Cover Comps: September 15th– October 31st
March 1st - March 31st

Peatlands and carbon credits.

By Andrew Stanworth

Human activity has both increased carbon dioxide gas (CO2) production and reduced natural CO2 capture by the environment. This has led to more CO2 in the atmosphere and contributed significantly to climate breakdown. International commitments have been made to reverse this trend and try to reduce the global impacts. This has produced financial incentives for approaches that can avoid CO2 emissions and/or capture CO2. The value of these avoided emissions or captured CO2 is expressed as 'carbon credits' which are equivalent to a ton of CO2 saved or captured. Generation of carbon credits to sell must be clear and demonstrable, given the potential money involved, and schemes and standards for this have been created to provide credibility for producers, and confidence for buyers. The Peatland Code is an example of such a scheme https://www.iucn-uk-peatlandprogramme.org/peatland-code-0.

Healthy peatlands take CO2 captured by plants growing on them and convert it to peat. Unlike many other soils, those in healthy peatlands do not decompose much. They continue to accumulate, capturing CO2 and storing it as carbon over thousands of years. Peatlands are one of the most important global carbon stores. Unfortunately, many peatlands globally are in an unhealthy state due to draining, tree planting, over-grazing or other impacting land management practices. Critically, unhealthy peatlands stop capturing CO2 and start to emit it, becoming part of the problem rather than the solution.
Current peatland carbon projects in the UK and elsewhere mostly work on the idea that if unhealthy peatlands are returned towards a healthy state then they will stop emitting as much CO2. This avoided emission helps reduce the overall CO2 being produced and therefore has positive value. If peatlands get to a healthy state they will actually start to capture CO2, which is much more desirable, but could take much longer. UK peatlands are managed back towards health by blocking drains (re-wetting), removing woodland which dries peat, removing grazing, re-planting etc. Management must improve peatland health in order to generate the carbon credits. Simply having peatlands does not result in carbon credits, managing them into a healthier state does.

The Falklands has extensive peatlands. Some areas may be healthy, others not. It is unknown how much there may be of each, but those that have no or little vegetation cover, are drying/ eroding, or are thin and impoverished are more likely to be unhealthy. If unhealthy Falklands' peats are managed back towards health, they could reduce CO2 emissions , start capturing CO2 and, potentially as in other countries, generate monetary value as carbon credits. Credits are sold, as in any markets, in a variety of ways for variable prices. Credits can be generated over long timescales as emissions continue to be avoided and theoretically could increase over time if peatland health increases and emissions reduce further. This is a growth market with lots of interest globally.

Can the Falklands sell carbon credits? First, we need to understand how, or indeed if, we can manage our peatlands into healthier states. If peatlands don't respond positively to manage-ment, carbon credits will be difficult to generate. We also need to know, even if we can improve their health, how much difference does this make to their CO2 emissions? In addition, how long does it take for the change to happen? If they are manageable back to health, the costs of doing so will be an important consideration for overall financial viability, and projects may require some support to get up and running. We also should have a Peatland Code scheme/standard to provide buyers with confidence so that they will buy Falklands' carbon.

A Peatland Code, or equivalent standard, basically provides rules for setting up projects and monitoring them to ensure peatlands are improving as predicted. Carbon credits certainly have the potential to support restoration of Falklands 'habitats while providing financial diversification for landowners that are interested.

Saladero News

By Andrew Bendall

August - September 2021

Weather! All in all it's been a relatively mild winter and quite dry in most places, which could make one slightly nervous going into spring dry, with potentially wet and cold weather to come. However it will be what it will be.

Preparation!

2021 lamb crop, what's it going to be? Well we now know the potential with scanning results in.

Joining			October		Scanning	October					
Year	Tally	Weight	Weight SS	C.Score	C.Score	C Score SS	Drys	Singles	Twins	Total Lbs	%
2013/14	50	54.1	52.1	2.8	2.5	2.4	2	39	7	53	106%
2015	72	56.2	54.3	2.9	2.6	2.5	1	63	7	77	107%
2016	140	51.8	51.3	2.9	2.6	2.6	5	112	24	160	114%
2017	158	51.9	49.7	2.9	2.7	2.6	6	146	7	160	101%
2018	145	49.5	46.3	2.9	2.7	2.6	2	138	4	146	101%
2019	205	42.5	39.4	3	2.8	2.6	33	169	2	173	84%
Blue Beach	15	58.9	62.5	3	2.8	2.5	0	11	4	19	127%
Total Joined	**785**			**2.9**	**2.7**		**49**	**678**	**55**	**788**	**100%**
Total Scanned	**782**										

As seen above all the ewes had been in, weighed & condition scored at joining, condition scored at scanning, weighed and condition scored at set stocking (red figures). With a slight loss in body condition across the board prior to their planned break feeding regime during the last 5 weeks of pregnancy I was relatively comfortable with where they were at.

My initial response to these weights and condition scores (in red) in particular the weights was very disappointing, however on closer inspection of individual weights vs averages it became clear that there was a 10-15% group of poor performing ewes distorting the general populace. So this group of 10-15% have been recorded and their efficiency index (weight of lamb weaned vs joined body weight) and their ability to bounce back and gain satisfactory condition by early 2022 will determine whether they remain in the NSF.

Execution of the last trimester of pregnancy – did it work?

What we did, was had a 30 ha old re-seed paddock that had been rested since the early autumn with approximately 1200 - 1400 kgDM/ha medium to low quality greenish forage available, plus feeding a daily ration of sheep nuts of high quality energy, (100-200 grams/ewe/day).

The ewes were on a two day break behind a 3 wire electric fence, but getting sheep nuts daily. At the start of this regime we started getting some early lambs, which I initially assumed may have been the start of some aborted lambs caused by toxoplasmosis (disease spread by cats) so we spread the ewes out again during a week of unsettled weather to lessen the effects of them being in close proximity to each other. However it turned out to be a rogue ram getting out in March and they soon stopped.

Ewes were returned to the break feeding system and it seem to work well until just prior to shearing and set stocking when we had some shearling ewes started lambing, having their lambs 10-14 days early. Lambs were being born weak and not surviving, all be it in excess of 3kg birth weight. Nothing abnormal was detected through some post-mortems carried out by the veterinary department.

Our plan was to pre-lamb shear all ewes, assuming they were in satisfactory condition, their wool length long enough, we had sufficient saved feed to set stock onto and the weather was settled.

We believed their overall condition and wool length were under what we considered satisfactory, so we only shore the shearling ewes whose wool was longer, their fleeces were weighed and will be tested.

All ewes received a drench and glanvac vaccination and have been set stocked, onto saved camps and have had some relatively mild weather as well.
From my perspective what is disappointing is the variation and the lack of resilience in some NSF animals. As mentioned above these animals will most likely be culled, unless they rear exceptional lambs. The argument being, if the majority of the flock can perform under the said management why can't they all.

Worm counts have not been a significant factor with a random sample of the ewes retuning only 300-700 epg, certainly not an excessive burden for an adult sheep.
With all ewes now set stocked it's up to them to keep their lamb and themselves alive, may the weather be mild and the feed start to grown mid-October!

What could be done differently?

More green grass cover was needed to compliment the sheep nuts, this will improve through better paddock management over time and also an application of fertiliser in the early autumn would help build covers. Grass grows grass! You're basically treating fertiliser as a supplement feed which is self-harvested.

Ewes that were losing condition due to the competitive nature of this grazing system could have been identified and removed. Bearing in mind "*It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change"* Charles Darwin. Therefore we want to select and breed from competitive, robust and resilient sheep.

Water! Another area we are looking at is the quality of water and distribution of the water. With a more reliable trough water system it would have allowed us to back fence the breaks giving better utilisation of feed grown.

But the most strategic change I would have made was starting this system earlier,
(before scanning) and then having them set stocked a good two-three weeks before the start of lambing. This would allow more flexibility and time for any pre-lamb shearing to be done giving the ewes greater time to settle within their lambing camps, as a very large proportion of ewes had conceived within the 1st 17 days of joining.

Management of Hogs;

Summary of the hogs management over the summer, autumn and winter.

- Lambs weaned 21st Jan (70-105 days old at 23.6 kg)
- All lambs achieved above 120 grams a day weight gain in February
- March saw these gains drop to an average of 100 grams a day
- All lambs drenched at weaning (21st January) and again in late February.
- All have had individual faecal samples taken early June & drenched.

- Drench tested at 10 days (three different drenches were tested, all effective)
- Abamectin (oral), Combination (oral) & Doramectin (injectable) given in June
- Hogs wintered alone with the aim of growing in frame but maintaining body weight and condition
- Full belly and full crutch done end of September
- Drenched at crutching, all hogs will come back in and be visually assessed mid- October.

Worm Burden

What's it costing us in loss of weight gain in our young stock? Possibly more than we think!

We have tracked both weight gain and FEC's in the hogs over the summer and autumn and have taken individual FEC samples from them all in June. These results have now being analysed to see if the there are any correlations between;

⇒ Sires used (3-4 sires identified as contributing to hogs at either end of FEC range)

⇒ Body weight and weight gain (hogs with high FEC showed less live weight gain than counterparts)

⇒ Body condition scores at different times (trend would suggest FEC is affecting both BCS and weight gain in most BUT not all animals) certainly seeing the difference between resistance and resilience to a high worm burden

⇒ Paddock selection (massive influence, especially where camps have greens)

⇒ Stock management (clearly management has a pivotal role to play in the control of any worm burden)

Further individual FEC samples will be taken again from all hogs November.

Breeding a "Fit for Purpose" sheep for the Falklands, an animal's ability to have a good resilience and strong immune system to act as a defence mechanism to health and environmental challenges while still maintaining health and productivity is of paramount importance.

Saladero Management;

FLH continue to provide management support through Macaulay Davis to cover the day to day running in conjunction with DoA staff.

Lambs hunkering down out of the wind

Blue Beach Ewes pre lamb (Scanned Twins)

Focus on Falklands Wetlands

by Steffi Carter

The 'Falklands wetlands and aquatic habitats: baselines for monitoring future change' project started in October 2020, which is led by SAERI but also involves project partners from Falkland Islands Government (FIG), the UK Centre for Ecology and Hydrology (UK CEH), University College London (UCL), and two independent consultants. The project partners have expertise and abundant experience in hydrology, biogeochemistry, ecology and international wetlands conservation. The project is funded by the Darwin Initiative through UK Government but is also supported by FIG's Environmental Studies Budget, the Ernest Kleinwort Charitable Trust and the John Cheek Trust.

The internationally applied definition of 'wetlands' is very broad and includes a range of terrestrial, marine and man-made habitats. The main focus of this wetlands project is rivers, streams and creeks as well as both freshwater and brackish lakes, ponds and pools.

In the past, many researchers have visited the Falklands and explored a range of aspects in relation to wetlands – as defined by the project – such as water chemistry, ecology and specific taxonomic groups. However, many of these visits occurred before the initiation of Falkland slands IMS-GIS data center; the data had not been checked and collated into one place, and it was unclear exactly what had been done in the past. The first task of the project was therefore to collate all previously gathered data and to display these visually through a webGIS page, and to carry out a literature review, which included an analysis of data gaps. Both have been completed now, which has allowed the aims of the project to be fine-scaled.

The main aims for the project are to carry out fieldwork to fill key gaps in knowledge and establish baseline data on current characteristics of wetlands against which future changes can be monitored. This includes further work on chemistry and ecology of wetlands, but also hydrology by deploying data loggers to monitor water level and temperature. This will form part of a long-term initiative with monitoring continuing beyond the project. A first round of fieldwork was completed in February and March 2021, with a second round to start soon, and run over the 2021/22 summer. The project will conclude with recommendations for future monitoring of indicators to detect changes in wetland condition, and with recommendations to FIG for an Islands-wide Wetlands Action Plan.

Wetlands across the globe are under threat from climate change and human activities. They are disappearing; their ecological condition is being reduced, which then is leading to a decline in many species. Thankfully, many of the threats that challenge global wetlands, such as pollution, and urban and industrial development, are not faced here but Falklands' waterbodies are still at risk.

The major impact in the Falklands is climate change but other factors such as invasive species and stream alterations can also have a localized effect.

Climate change has become evident in the many ponds and lakes that have dried out in recent summers. Other potential threats from climate change are a predicted temperature rise, which can increase evapotranspiration rates and thereby reduce freshwater availability; and a shift in precipitation patterns which may alter hydrological regimes. Although a popular species amongst anglers, the brown trout *Salmo trutta* is non-native and invasive.

The two native *Aplochiton* species (zebra trout) do not co-exist with brown trout and their range is being reduced as brown trout disperse further. The impact of ditching work as part of current land management is also likely to have a lasting impact on freshwater habitats by directly changing the physical features of streams.

Evaporation rates may also increase as streams are opened up and as larger surface areas are exposed to wind and sun.

Even though Falklands wetlands are relatively untouched compared to most global wetlands, this may change in the future. This wetlands project will provide valuable baseline data and initiate indicator monitoring, so that any future changes in condition and extent of our wetlands can be detected and acted upon. If you think you have an interesting wetland feature on your land that you would like to know more about, please get in touch and I will endeavor to include it in the upcoming fieldwork season. If you have other queries or questions, I would also like to hear from you. Please email Steffi Carter scarter@saeri.ac.fk.

Pond snail on Water Milfoil in Yorke Bay pond

Caddisfly Larva

Ladle-Leaved buttercup

Lake, West Falkland

River, West Falkland

Stream, Weddell Island

Ditching Questionnaire – Summary

by Steffi Carter

At Farmer's Week and subsequently online 31 land owners and land managers participated in a survey, which had the main aim to get a better understanding of the purpose and extent of ditching and drainage ditches in the Falkland Islands. From the survey and discussions at Farmer's Week, it appears that the term 'ditching' refers to altering of existing streams, whereas 'drainage ditches' would have been dug in locations where no existing water run-off had been present previously. Of all participants, 84% have either man-made drainage ditches or streams that have been altered on their land ('ditching'). Of the five participants without any of these features, two expressed that they plan on carrying out some work in the future.

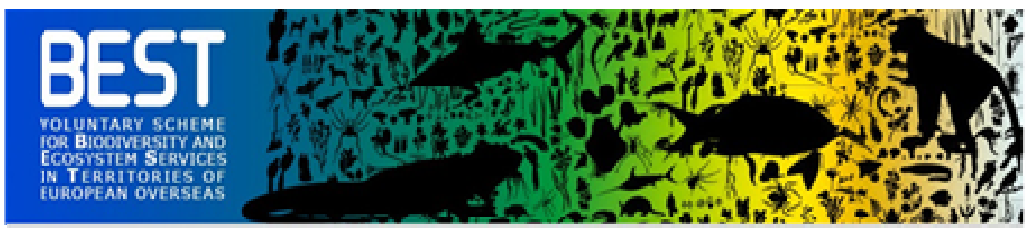
Ditching or drainage ditch features were inherited from past managements at one third of farms, whereas on almost two thirds of farms these play an active role in farm management. The survey also made clear that all current work is carried out to make land safer for livestock and to a lesser extent to provide access to drinking water to livestock. Where ditching or drainage ditches played a role in the past only, the focus was on drying out the land, but livestock safety was also a consideration. Other reasons were directing a stream into a culvert below a road, making vehicle crossings, pond draining, creating better pastures in the valleys and making land safer for people. Three survey participants mentioned buffalo ditches in particular.

Almost two thirds of the farms were satisfied that their ditching work fulfills the intended purpose, but about 30% either disagreed or had a mixed response. The main reason for disagreeing with "ditching work fulfilled the intended purpose" was concern over drying out of ditches/ land, ditches washing out and deepening and revegetation being a slow process.

Almost 60% of land owners and managers with ditching features on their land were concerned that alterations might accelerate the loss of water and reduce availability of soil moisture. The survey also asked for estimated lengths of ditches and drainage ditches across farms; which added up amongst all survey participants comes to an estimated* total of 686 miles, or an average of 32.2 miles per farm. The length of ditches, however, is quite variable between farms and fewer or shorter ditching work is much more common than larger extents of ditches.

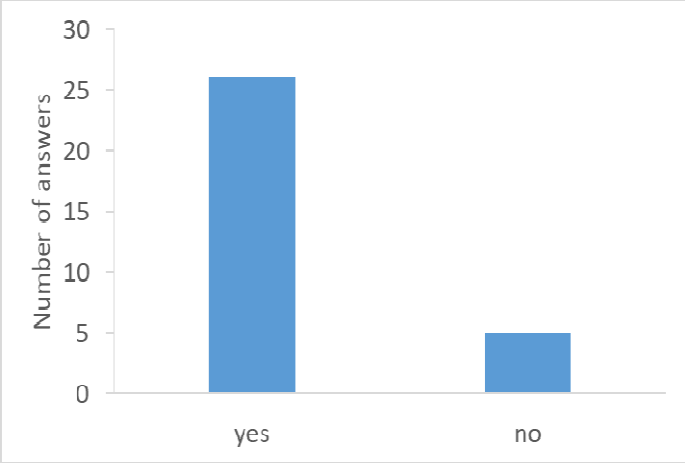
I am extremely grateful to landowners for participating in this survey. The survey was anonymous, and any information provided about individual farms will remain confidential. If you have any queries or would like to discuss this further, please get in touch with Steffi Carter scarter@saeri.ac.fk

* Some land owners / managers were unsure of the extent of ditches on their farm and provided estimates rather than certain figures.

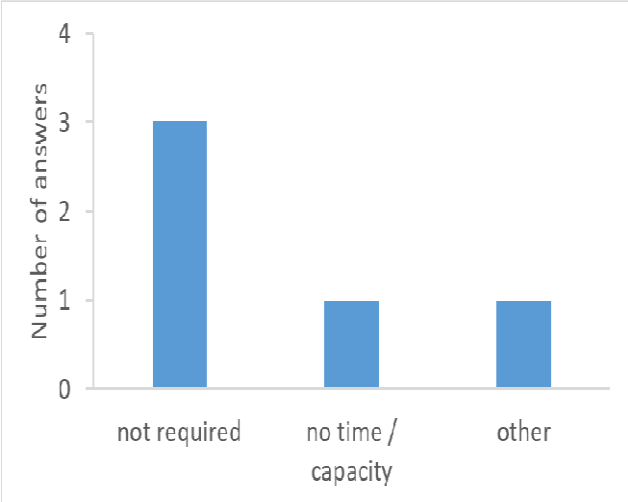


Ditching Questionnaire – Results

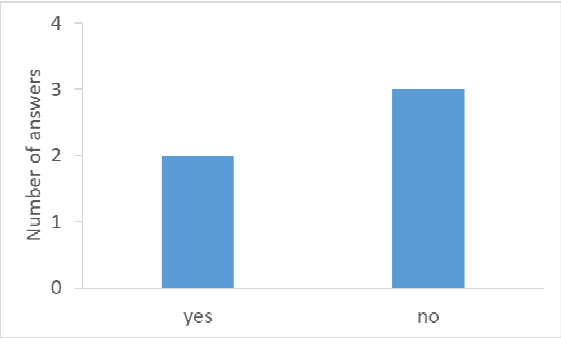
1. Do you have either man-made drainage ditches or streams that have been altered on your land?



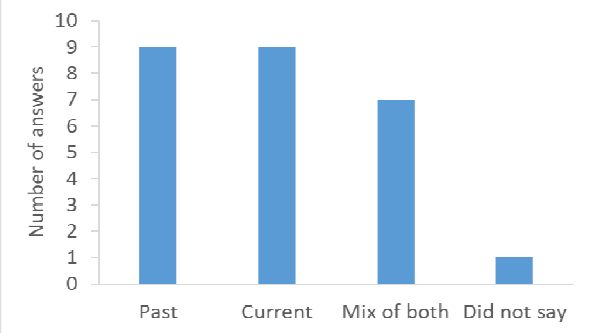
1a. If no, why not?



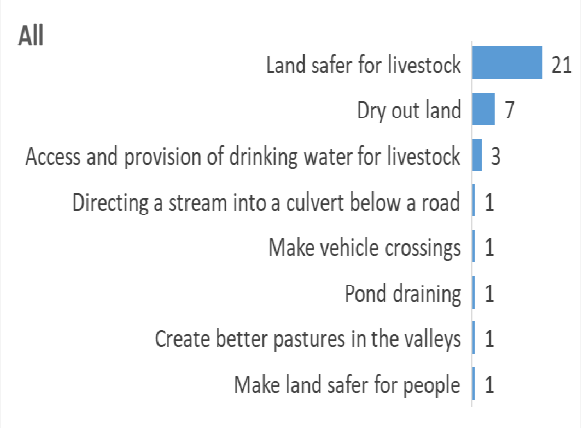
1c. Do you plan on carrying out ditching in the future?

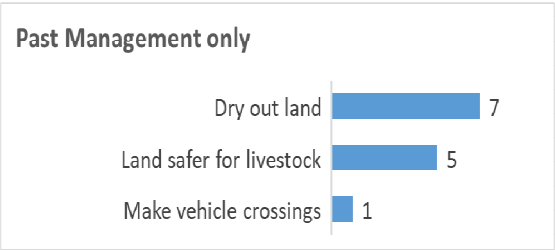


2. Did you inherit these from past land management or do they play an active role in your current land management ?

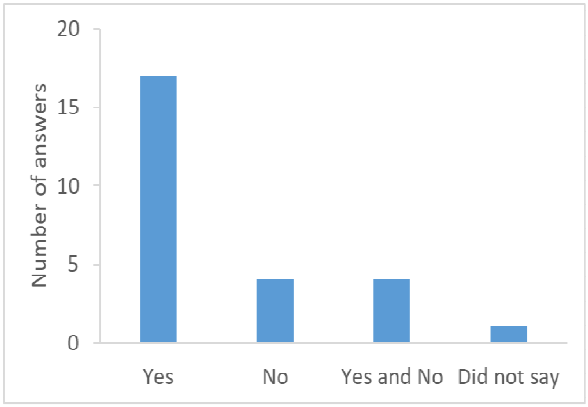


3. For what purpose were / are alterations made?

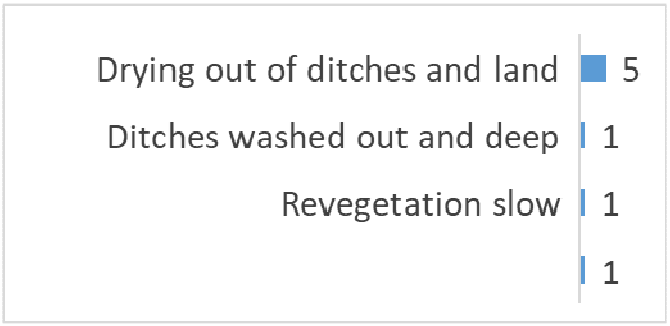




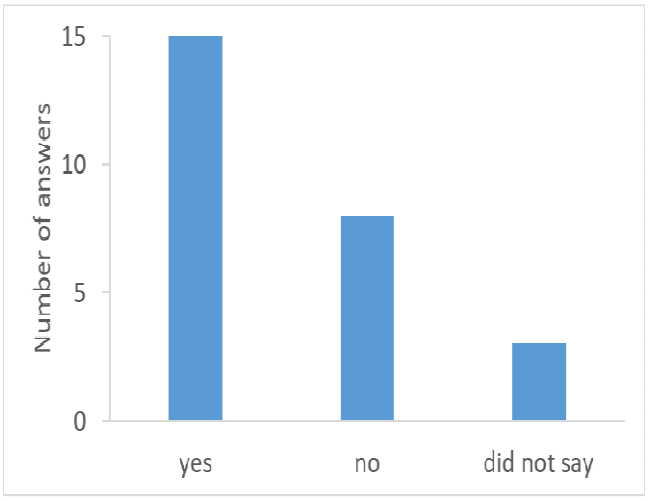
4. Are you satisfied that alterations fulfill their intended purpose?



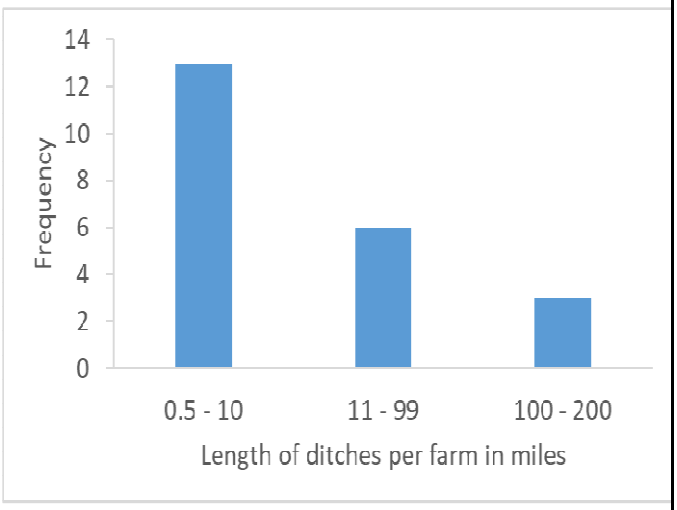
4a. If no, why not?



5. Are you concerned that alterations might accelerate the loss of water and reduce availability of soil moisture?



6. What is the estimated total length of ditches / altered streams on your land ? (miles)



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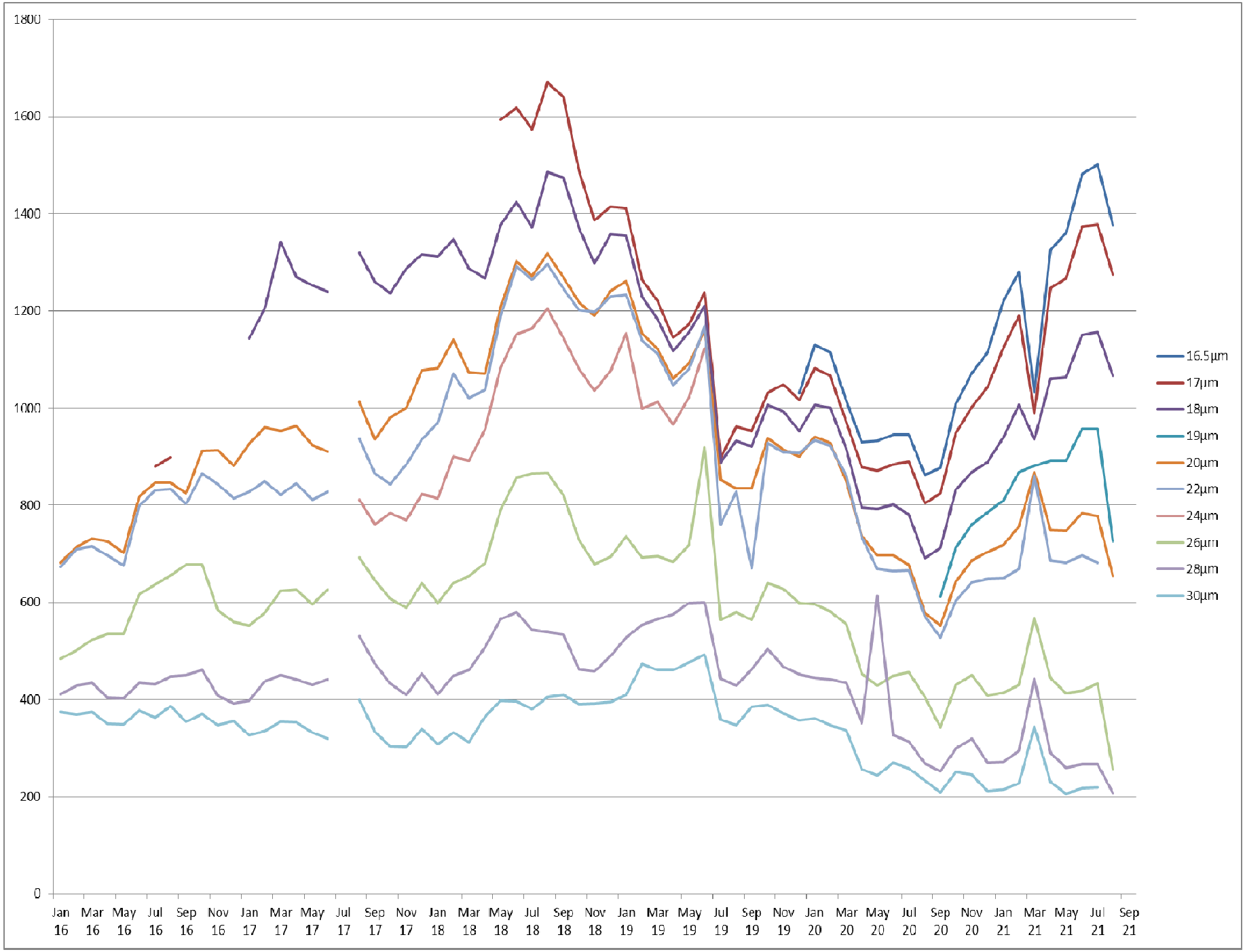
Five year AWEX Wool Price trend

By Lucy Ellis



PUZZLE PAGE!

The target of this game is to fill up a 9×9 grid. When you add numbers to each column, row and all the 3×3 boxes which are regarded as regions or blocks, the entire squares will be filled with digits ranging from 1 to 9. Other things you need to understand are:

The smallest block in Sudoku game is called a cell.

- A column, row or region has 9 cells.
- The region is marked with thicker lines.
- A Sudoku game has a total of 81 cells.

A single nonet comprise of a 3×3 square

SUDOKU

4			3		8			6
2	3			6		4		
		9	4			7		
8	9		7					
5						9	1	
	6							7
		8		1			4	3
	4	1					6	
			8		2		7	

Name: _____ Date: _____

Agriculture

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

ordinary, common, hybrid, horticulture
irrigate, cultivate, vegetation, erosion
foliage, agrarian, Joshua, Deuteronomy
fertilizer, conservation, wheelbarrow, combine
dairy, corral, livestock, agriculture
rural, tractor, pasture, trough
acre, orchard, heifer, poultry
harvest, meadow