October 2023

Veterinary Centre
EwesNews

How Responsive is Your Ewe Flock to BSC Gain?

Dave Robertson BVSc BSc – **VETERINARY CENTRE** Oamaru

This is a question that comes up from time to time. Have I just got less fertile sheep or if I build BCS beyond standard practice will I get rewarded? Hamish Wade at Kyeburn managing 13000 half-breds wanted to answer these questions and see what genetic potential his ewe flock had to "get lambs inside them".

At crutching in April he identified 70 light ewes <2.5BCS and they got a coloured tag, he selected 70 fatter ewes >BCS 3 and tagged them with a different colour. At scanning in August the mob average was 141%. The light tagged ewes did 130% and the fat tagged ewes did 180%. From this he has confidence that to get more salable lambs the key is to crank the BCS profile of the ewe flock up a notch or two.

The journey can begin in winter with crop allocation, twin ewe management etc. It then gets interesting from set stock on as there are more environmental variables that are harder to manipulate. Tailing is theoretically the low point of ewe BCS, if twinning ewes can start lifting to weaning then you will have less lighter ewes to manage post weaning (and a better lamb draft). Mob stocking and rotational grazing is better, shifting ewes and lambs regularly (before they need a shift) will help. Having some handle on stocking rate and pasture growth rates is also useful. Utilising cattle behind ewes and lambs is useful for maintaining quality. Harder to achieve in sheep heavy South Island systems.

Post weaning is the best opportunity to gain weight on ewes and when you see the numbers that Hamish Wade generated it is well worth focusing on, to lift farm profits.

The issue this year was many ewes gained weight later during the mating period, and this seems to dial in the bearing risk factors. Ewes that lay down fat and muscle in the summer early autumn can be more efficient and take less feed to maintain over the winter. They will not require the same level of worm control and hence reducing drench inputs required for capital stock. Selling more lambs store out of fatter ewes can stack up better than finishing everything at the cost of ewe BCS.

Half-bred ewes managed by Hamish Wade for David and Judy Andrew, Kokonga

Shearing time at Ida Valley Pastoral on a Bluebird Day!

IN THIS ISSUE

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by the Big Blue Cross

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Animal Health
ACTION MONTH

Tailing, consider these key points

1. Tailing Vaccine
2. Parasites
3. Fly Protection
4. Feet & Eyes
5. B12 Supplement
6. Scabby Mouth

Tailing Vaccine – What should I use? 1

Aroha Te Hiko BVSc – **VETERINARY CENTRE** Waimate

Clostridial vaccines

What are they for? Clostridial diseases come in many forms often causing sudden death in stock. Most common diseases in NZ livestock include Tetanus (prevalent at tailing), Pulpy Kidney (prevalent post-weaning), Black leg, Black disease and Malignant Oedema. Due to widespread use of vaccination a lot of these diseases are rarely observed on farms today. But it is important to note that these bacteria can be considered universal and present on every farm and present in all animals.

Our clostridial vaccines that protect against all these diseases and has been rigorously tested, are reliable and have good science and technical support behind it, yearly testing is recommended as seasonal variation is common.

Were ewes vaccinated with Multine 5 in 1 pre-lamb?

NO

Lambs will not have enough protection against tetanus give Lamb Vaccine at tailing for immediate short term protection. Start lamb vaccination programme at weaning.

Lamb Vaccine Selenised
ACVM A001011

Weaning

Other lamb classes

Give Multine 5-in-1 Sensitiser

Multine 5-in-1 Plain
ACVM A000934

4-6 weeks after Sensitiser

Give Multine 5-in-1 Booster

* Multine Selenised is not suitable for lambs due to a risk of Selenium toxicity

Note: animals are not fully protected until after booster vaccination

Also available in B12 ...
Multine 5-in-1 B12 (ACVM A011311)
Multine 5-in-1 B12 Selenised (ACVM A011766)

YES

Lambs will have some anti-body protection for tetanus from mother's colostrum at tailing. Can start vaccination programme in lambs from tailing.

Tailing & Weaning

High risk of clostridial diseases on farm or Stud/breeding stock

Give Covexin 10 Sensitiser

Covexin 10
ACVM A009028

4-6 weeks after Sensitiser

Give Covexin 10 Booster

Note: animals are not fully protected until after booster vaccination

Note: Covexin 10 does not contain added minerals. Consider adding Prolaject B12 1000 or Prolaject B12 1000 + Selenium at lamb dose.

Prolaject B12 1000
ACVM A005850

Prolaject B12 1000 Plus Selenium
ACVM A006170

Parasites – Do ewes need a drench? 2

Vanessa Love BVSc
VETERINARY CENTRE Ranfurly

Do ewes need a drench? Egg count some mobs pre-tailing to answer this. Will a targeted drench to light ewes do? 4-6 week old lambs are too young to benefit from a drench – unless nematodirus worm species have emerged. If ewes have had long acting drenches take the opportunity to collect 10 samples from ewes to check egg counts.

Case Studies

Farm 1: Twin Half-bred MA ewes, good condition, but a tail end noted by the farmer, last drenched 30 days ago.

Results	
Mob:	
Last drenched:	Product: Date:
Days since drench:	
Sample ID	**Strongyle** (eggs / gram)
1	0
2	50
3	100
4	0
5	50
6	200
7	50
8	0
9	0
10	0
Average	**45 epg**

45 eggs per gram is a very low result. It takes 21 days after an effective drench for eggs to start coming back from new infestation, at day 30, an egg count of 45 eggs per gram means infection pressure is currently low. This farmer went on to give Cydectin LA to his ewes under a condition score 3, about 15% of the mob.

Farm 2: In lamb romney hoggets, good condition. Last drenched in mid June. This is a composite count where samples from 10 sheep are mixed together and 3 pooled samples are tested.

Sample ID	Strongyle Eggs/g
1	500
2	450
3	200
4	
5	
6	
7	
8	
9	
10	
Average	**383 epg**

383 eggs per gram is into the space where we want to drench. This farm went on to use a triple oral drench for the whole group, leaving three heavy hoggets per race undrenched (approximately 10%).

Fly Protection for Lambs at Tailing

Anna Macfarlane BVSc – **VETERINARY CENTRE** Oamaru

With tailing approaching it's a good time to consider your fly protection options for your lambs. The wounds created at tailing act as an attractant to flies and hence a fly treatment is needed that will provide adequate protection until the wounds have healed.

Popular options include the CLiK range, which contains the active ingredient dicyclanil, an Insect Growth Regulator (IGR).

The benefits of these products include;

- They are a water based formula hence non flammable; an essential feature if using an iron.
- Using the appropriate applicator enables 5 - 10ml to be applied. The product will only be effective to areas it's applied.
- There is no known resistance recorded by strike flies to the active in NZ.

CLiK Extra
Spray-On
14-26 Weeks Protection

Meat WHP 21 days

Clik Extra Spray-On
ACVM A011384

CLiKzin
Spray-On
6-9 Weeks Protection

Meat WHP 7 days

ClikzinSpray-On
ACVM A010284

SHORT Meat WHP more suited for late season tailing, or tailing of finishing lambs.

Should I Supplement B12 at Tailing?

5

Aroha Te Hiko BVSc
VETERINARY CENTRE Waimate

Lambs are particularly susceptible to cobalt related ill thrift. The lamb's primary source of vitamin B12 is from transfer through the placenta before they are born. B12 is stored in the lamb's liver and promptly begins to deplete over the next 5 weeks after birth. B12 is less readily transferred via the ewe's milk so lambs rely on pasture to meet requirements. Unfortunately lush spring growth is often low in cobalt (the precursor to B12) meaning higher risks of deficiency heading into the critical weight gain periods of summer and autumn. Long-acting B12 injection at tailing or weaning (Smartshot – lasts at least 6 months), or regular short-acting injections (Multine/Prolaject B12 - lasts 3 – 4 weeks) over this period are recommended. On farms that are not supplementing, we recommend yearly testing as seasonal variation is common.

Prolaject B12 1000
ACVM A005850

Feet & Eyes

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Dave Robertson BVSc BSc – **VETERINARY CENTRE** Oamaru

Have some tetravet blue spray and injectable antibiotics handy to treat infections. Treating lame ewes and lambs at this time can limit spread of disease, minimize production loss and relieve suffering. Entropian (in-turned eyelids) is the most common cause of eye infection and ulcers in lambs. A 1mL injection of antibiotics under the skin around the infected lid is the best cure. Puffer powder is commonly requested, but won't fix the rolled in eye-lid.

Lamb with entropion

Scabby Mouth

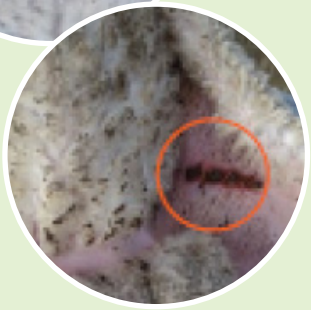
6

For those with a history of parapox virus (AKA scabby mouth or orf) on the property, the scabby mouth vaccine should definitely top the list. It's spread through contact with the scabs, and the virus survives for years in the environment. The risk of the disease increases substantially over summer and reduces growth rates, so tailing is the ideal time to vaccinate lambs for it.

Prevention with vaccination is the only way to protect. Check "takes "10 days later is very important.

Scabigard
ACVM A003731

*Scratch site on day of vaccination, no "**takes**" formed*



*Scratch site day 10 post vaccination, "**takes**" have formed indicating successful vaccination*

Snow on the Lindis

Addressing Pain Aspects of Tailing and Lamb Castration this Spring

Dave Robertson **BVSc BSc – VETERINARY CENTRE** Oamaru

When considering routine procedures carried out on animals, it has come upon us to consider the pain involved and whether to address it.

Yes, it is a gradient of consideration that many are uncertain about entering. Being pushed down this hill isn't much fun either - that being the situation with many fine wool producers this season.

Attitude is everything supposedly, and if you can see it is worth reducing painful aspects to your lambs at tailing, then you are more likely to give it ago and view it as a positive thing. It can be a chance to demonstrate to someone that you care a wee bit more about everything you do on the farm. You don't have to always fill in pot holes, drag dead things to the hole, pick up baleage wrap, hang tools on their painted silhouette on the wall…but it makes things appear tidier and that you care about what you're doing. Is numbing testicles at tailing another one of these things?

So when considering the topic it is interesting to look at the two ways pain levels can be assessed.

1. Observations of noxious stimuli. These are subjective and can be hard to quantify precisely but make intuitive sense. Like doing dishes when camping: "if it looks clean it is". A lamb lying down kicking at its abdomen is in pain. A lamb walking alongside its mother and having a drink is not.
2. Cortisol blood levels. These are an objective way of analysing and measuring painful things. This is a hormone released at times of stress. Generally, the greater the stress, the greater the cortisol rise.

With lifting a lamb up in an unfamiliar setting this can cause a level one cortisol rise (33-50%) increase. Not that bad. Probably similar to shearing or being hunted with dogs. Cutting a tail off with a cold knife will cause a level 6 cortisol increase (200%). This method is the most painful and now banned. Rubber ring on the testicles is a level 4 cortisol response. Possibly one of the more painful events in a wether lambs' life. Removing a tail with a hot iron or rubber ring in a 3-8 week old lamb is generally a level 1 cortisol response can be level 2. Indicating that in the scheme of things tail removal is a lot less painful than castration. FYI Crypting causes level 2 response. Leaving tails long and rams entire = level 0.

All this science-y stuff seems to correlate with what you observe. A castrated lamb rolls around more and for longer than a tailed ewe lamb.

How long does the majority of the pain last?

- The acute nerve barrage associated with pressure from a rubber ring peaks at 30-45minutes. The tissue is generally numb after 1 - 1.5 hours. The cortisol levels return to baseline after 4 hours. With hot iron cautery the acute nerve barrage is over in seconds and nerve ending numbed by the cautery. There will be some dull (chronic) pain associated with the wound which is hard to determine how long and to what level it exists. There may also be some inflammation associated with rubber ring on the tail after the nerve has stopped barraging (1-1.5hrs), but this lingering chronic aspect is also uncertain and cannot be accurately measured with respect to pain level experienced with rubber ring tailing.

So with this in mind:

- What should we do about it.
- How do you become compliant with marketing company directives.

Castration

From working with farmers in this space for the last few years, it appears that an injection of local anaesthetic into the scrotum and cord where the ring is placed makes a difference. Male lambs do not display the same level of distress. They mother-up better.

Tailing

The use of local injection for the tail is more problematic with risks of putting it in the artery (they spaz out), in the spinal cord (they can't stand) or not getting effective diffusion to numb the area (it didn't work). There are dags and soiling sometimes. Through-put has to be maintained...

Using topical local anaesthetic (Tri-solfen 1.5mL) is compliant for pain mitigation on the tail stump after hot iron cautery. It should not interfere with Clik.

Using anti-inflammatory drugs NSAIDs (Meloxicam: 0.5mL injection OR Buccalgesic 1mL oral formulation) is a recognised compliant measure for castration and tail removal. These drugs reach peak plasma levels after 1.5 – 3hrs. They are usually administered at the time of the procedure. They may last for 8 – 24 hrs. They block certain aspects of the inflammatory response, they have no effect on nerve barrage activity from acute noxious stimuli. There are few measurable production or behavioural benefits recorded in literature. One paper showed 11 more lambs survived to weaning in meloxicam treated lambs (1600 lambs in the study – no post mortems conducted). 2 studies have shown slightly reduced daily growth rates in meloxicam treated merino lambs for a 2 week period following treatment. There are anecdotes from an Australian farmer that said that NSAIDs make a difference. NSAIDs certainly improve outcomes when there is a surgical wound (like a shearing cut or mulesing wound or knife castration). They can support local anaesthetic use as part of the belt and braces approach (multi-modal therapy).

Summary

Use local in the scrotal sac if you want to make the biggest difference with respect to reducing painful procedures. You will have to get signed off to use it. NSAIDs are options for compliance in this space. It is only one thing to do and does not require the paper work and dispensing regulations that local anaesthetic will require.

Please contact us as early as possible to sort out what you require. We have a number of non merino clients interested also.

No one enjoys being pushed down a slope, but many willingly go skiing.

Hamish Elliott and Don Murray attending a lamb pain relief workshop trying out the different products.

Veterinary Centre
EwesNews EXTRA

BVD in Beefies

Ewan Penny BVMS – VETERINARY CENTRE Waimate

A very poor scanning result (average 80% in calf rate) prompted BVD investigation on a farm with a mix of beef, sheep and dairy grazing. Several small, ill thriven calves were also noticed at the scanning visit.

Exposure in a calf mob was found to be extremely high, prompting further investigation.

All calves were blood sampled for BVD virus. Any calves testing positive for BVD virus were retested 5 weeks later. 35 calves were BVD virus positive on the second test, meaning they were persistently infected – 35 PI's! Some of these may reach a slaughter weight, others will have to be destroyed on farm.

The cows were unvaccinated (naïve to BVD) and must have been infected at just the right time during the breeding season to create all these PI's.

A good reminder that BVD is a real problem in our practice, responsible for huge financial losses in terms of fertility and calf growth and vigour.

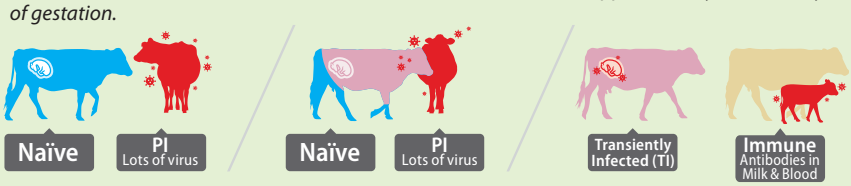
Biosecurity should be constantly reviewed, especially where there is bought in/added stock. BVD vaccination is a cost effective, easy way to prevent issues like the one above and is a must for any at risk breeding herd.

BVD basic facts

- PI (Persistently Infected) animals will be infected with BVD for life and will infect other animals
- PI's are created before the calves are born – if their mother has no immunity and is infected before 4 months pregnancy, the calf will become a PI
- Vaccinating breeding cows will prevent PI's being created.

Persistently infected cattle (PIs) are the main source of BVD

PIs can form when infection with BVD virus occurs in utero, between approximately 45 – 120 days of gestation.



PIs shed high levels of BVD virus for their entire life, infecting naïve cattle. PIs can be within a herd, or may only have intermittent (ie over the fence) contact with the herd to spread BVD

CASE STUDY
Lamb Deaths on Lucerne

Vanessa Love BVSc – VETERINARY CENTRE Ranfurly

Finishing lambs on lucerne in late summer/early autumn is common practice, and sensible as the phyto-oestrogen compounds in the plant make it unsuitable for ewes close to mating.

We commonly see deaths in lambs on lucerne due to clostridial disease, but sometimes we see high worm burdens.

But wait, lucerne is supposed to be a low risk worm burden feed?

The issue with lucerne is there are often stand off areas of grass or around paddock features such as rocks where lambs flock and these areas are often grazed right down to the dirt as they look for fibrous feed. They become hot spots for larvae and lamb larval burdens can skyrocket.

It should be noted that very lush lucerne will change the gut transit time, meaning there may be a delay between worm burdens rising and egg counts reflecting that change.

An idea is to mow two rounds of the paddock and let it dry out before putting lambs on, so they are provided with fibre, and watch closely for signs of lambs becoming wormy.

Keep in mind the picture can change very fast.

NEWETRITION

Lucy Cameron BVSc BSc MANZCVS (Rumin. Nutr.)
VETERINARY CENTRE Waimate

Methane – just a lot of hot air?

Something a bit different this month! There's been a lot of talk in the last few years about methane emissions from ruminants. Some like to refer to a "fart tax", which is a little unfair, as almost all methane is produced in the rumen and burped out, with only about 5% being produced in the large bowel. Methane is produced by bugs in the rumen called methanogens, and it's actually an energy cost to the animal to produce it, so reducing methane emissions would also have the potential to improve feed efficiency – that energy could be used to grow wool or meat instead.

Why is methane produced?

As feed is broken down in the rumen by bacteria, gases are produced - CO_2 and Hydrogen. For the rumen to operate correctly these gases need to be dealt with, so they are quickly converted into methane by the methanogens, and burped out.

Fibrous and less digestible feeds produce more methane than high quality feeds, but the general rule is the more a ruminant eats, the more methane it produces – approximately 21-22g methane per kg DM of pasture or silage.

What can be done about it?

There are many approaches to mitigating methane emissions that are currently being worked on. A rumen bolus, or a vaccine against the methanogen bugs could be one of the future options. There are also novel nutritional additives such as seaweed derived supplements that show some promise – many of these however may not be helpful to extensive sheep and beef operations.

However, many of you will have read of the work done at AgResearch to breed low methane-emitting sheep lines. These sheep have smaller rumens in comparison to the high methane emitting sheep, but may have a larger surface area with more papillae – these are the little "fingers" all over the rumen wall that increase the area for absorption of nutrients. They have managed to breed these low methane-emitting sheep without a loss in production, and this is a world first.

In the meantime… Reducing methane emissions goes hand in hand with optimising reproduction efficiency on your farm, and feeding quality feed with minimal wastage. By culling unproductive stock, optimising animal health and body condition so that your young stock and breeding ewes/cows thrive, minimising feed wastage and following good silage/baleage preservation practices – then you are improving feed and farm efficiency at the same time as reducing emissions.

Bloat in Cattle

Gwyneth Mark BVSc –**Veterinary Centre** Oamaru

Lush pastures with high amounts of clover or lucerne makes spring a high risk time for bloat especially in young cattle. Bloat is caused by rapid gas accumulation in the rumen. This gas cannot be belched out as it becomes trapped in the rumen contents and forms stable foam.

When cattle are put onto a risky feed they can bloat within 15 minutes and die within 2 hours. If there are early signs of bloat, remove the herd from the offending pasture and feed hay or mature grass/silage. Bloated cattle can be given bloat oil and cattle with severe bloat may need to be stabbed in the left flank to release the gas. Because of the rapid onset, the first sign of bloat may be dead cattle. This can look similar to other common causes of sudden death including clostridial diseases in unvaccinated cattle.

Nothing is 100% effective at preventing bloat but the most reliable bloat prevention can be provided with Rumensin 100 day anti-bloat capsules given a week before being placed on risky feed. Other management options include providing fibre, giving bloat oil via troughs and avoiding hungry cattle gorging on high-risk pastures. Rumensin has the added advantage of improving feed conversion efficiency (7-15%) meaning bloat prevention can also improve production/profitability of finishing cattle.

Timely Reminder

Faecal Egg Counts

Monitoring Long Acting Moxidectin use Pre-lamb. Just a reminder, our Territory Managers will be contacting moxidectin LA (Cydectin LA, Exodus LA) pre-lamb users to monitor any faecal egg output. While the best time to monitor this is 40-75 days after injection, the optimal time is around the 60 day mark.

Exodus LA Injection
ACVM A010399

Cydectin LA Injection for Sheep
ACVM A009926

We can come to you or you can bring your animals to us!!

Vanessa & Jenny (Ranfurly) blood testing a ram for Brucella

Beef Cattle

Dave Robertson BVSc BSc
VETERINARY CENTRE Oamaru

Get service testing or semen testing of bulls done from now on. Useful information.

Good job to get done before its get busy with tailing etc.

BVD vaccinate heifers. Every year people in a programme forget this.

Let us know if you are interested in AI of your beef herd this year.

Example of a Standard AI syncro program for beef cows

Here is a guide of what is required for a September 1 calving date.

October: Planning and animal health	• Discuss if AI is a going to work for you. • Feed to gain weight 1 month pre-mating. • Boost with multimin (Se, Cu, Zn, Mn). • BVD vaccine (if in a program). • Source semen.
November 14	CIDR 1 Cows BCS >5.5. Calved at least 6 weeks.
November 21	CIDR out
November 24	AI
Nov 26	Bulls in
Jan 23	Bulls out
Feb 28	Preg test

Replacement beef heifers requirements

Worm control

Combination drench (Eclipse pour-on or injectable) or oral are good options. September and November are typical months to drench yearling cattle, depending on the type of pastures they are on.

Minerals

Selenium and Copper are the main ones to top-up prior to breeding. If you don't know whether they need to supplement do some bloods to check. Marks-Min or Multimin is popular as an all-round, shorter acting mineral option.

Disease control

BVD vaccination starts with a September sensitiser and October booster. Alternatively blood test all heifers to see if any carriers are present. Cows can be boosted at calf marking.

Clostridial booster 5-in-1 or 10-in-1 is also recommended.

Cold winter blast sweeps through.

Veterinary Centre

Spring Sheep & Lamb Order Form '23

Place your Tailing Orders early to ensure products are supplied when you need them

COMPANY	CONTACT NAME
FARM NAME (if different)	**PHONE**
DELIVERY LOCATION	

◯ **I would like to be contacted by a vet to discuss the animal health program in my flock.**

Product	Pack Size	CALCULATOR Dose Rate (ml)	Number of Doses (Animals)	Total Quanity Required (ml)	Packs (Units) Required	Date Required
CLOSTRIDIAL VACCINE						
Multine 5-in-1 Plain **Label Dose Rate:** 2ml per Animal at Docking with 2ml Booster at 4-6 Weeks and Annually	500ml	2ml				
Multine 5-in-1 B12 **Label Dose Rate:** 2ml per Animal at Docking with 2ml Booster at 4-6 Weeks and Annually	500ml	2ml				
Multine 5-in-1 B12 Selenised **Label Dose Rate:** 2ml per Animal at Docking with 2ml Booster at 4-6 Weeks and Annually	500ml	2ml				
Covexin 10-in-1 **Label Dose Rate:** 1ml per Animal at Docking with 1ml Booster at 4-6 Weeks and Annually	100ml	1ml				
Injection Applicator Gun	EACH					
Needles for Applicator	EACH					
DOCKING/TAILING VACCINE						
Lamb Vaccine Plain **Label Dose Rate:** 2ml per Animal	500ml	2ml				
Lamb Vaccine Selenised **Label Dose Rate:** 2ml per Animal	500ml	2ml				
Injection Applicator Gun	EACH					
Needles for Applicator	EACH					
SCABBY MOUTH						
Scabigard (250 doses per pack) PAR **Label Dose Rate:** 0.02ml per Animal	250 Dose	1 Dose				
Scabigard Applicator Gun	Each					
Phenax (150 doses per pack) PAR	150 Dose	1 Dose				

SCABIGARD REMINDERS

Please follow the below points to ensure the vaccine stays live! Scabigard cannot be returned.

- Keep vaccine at 2 - 8°
- NO BLOOD – Ensure you do not draw blood when scratching
- USE IN INNER THIGH ONLY (NOT EAR)
- When applying dip ensure you DON'T APPLY over the scabigard scratch.

For further information please visit: www.sheepvax.co.nz

PAR

Prescription Animal Remedy

Product	Pack Size	CALCULATOR Dose Rate (ml)	Number of Doses (Animals)	Total Quanity Required (ml)	Packs (Units) Required	Date Required
TAILING SUPPLIES						
Docking Rings (Orange)	Pk/500					
	Pk/2000					
Docking Rings (Blue)	Pk/500					
	Pk/2000					
Shoof Ring Applicator (Plastic)	Each					
Shoof Ring Applicator (Metal)	Each					
Leader Ring Applicator (Metal)	Each					
Disinfectant	5 Litre					
LAMB (under 20kg) DUAL ACTIVE DRENCHES						
Corporal Oral Drench **Label Dose Rate:** 1ml per 5kg	20 Litre					
Corporal + Tape Oral Drench **Label Dose Rate:** 1ml per 5kg	20 Litre					
SHEEP & LAMB (over 20kg) DUAL ACTIVES DRENCHES						
Boss DUAL Mineralised Drench **Label Dose Rate:** 1ml per 5kg	20 Litre					
SHEEP & LAMB (over 20kg) TRIPLE ACTIVES DRENCHES						
Matrix Hi-Mineral **Label Dose Rate:** 1ml per 5kg	20 Litre					
Eraser Tape **Label Dose Rate:** 1ml per 5kg	10 Litre					
NOVEL ACTIVES DRENCHES						
Startect **Label Dose Rate:** 1ml per 5kg	15 Litre					
Zolvix Plus **Label Dose Rate:** 1ml per 10kg	5 Litre					
APPLICATOR						
Oral Drench Applicator Gun	Each					
PAIN RELIEF (for tailing & castration)						
Meloxicam 20mg NECK INJECTION ***Reliven 20mg*** **Label Dose Rate:** 1ml per 20kg PAR	100ml					
Local Anaesthetic SITE INJECTION PAR ***Lopaine 2%*** **Refer to Veterinarian Instructions**	500ml					
Meloxicam 10mg ORAL ***Ilium Buccalgesic OTM 10mg*** **Label Dose Rate:** 1ml per 10kg PAR	200ml					
Topical Anaesthetic SITE PAR ***Tri-Solfen*** **Label Dose:** Lambs <10kg Tail 1.5ml Cast. 3ml (total) Lambs >10kg Tail 2ml Cast. 4.5ml (total)	1 Litre					

Product	Pack Size	CALCULATOR Dose Rate (ml)	Number of Doses (Animals)	Total Quanity Required (ml)	Packs (Units) Required	Date Required
B12 and SELENIUM						
SMARTShot B12 **Label Dose:** 0.5ml - lambs for slaughter animals 1.0ml - lambs for ewe replacement	500ml					
SMARTShot B12 PLUS Se **Label Dose:** 0.5ml - lambs for slaughter animals 1.0ml - lambs for ewe replacement	500ml					
Injection Applicator Gun	Each					
Needles for Applicator	Each					
LAMB MILK REPLACER						
Milligans Lamb Whole Milk Replacer	20kg					
AnLamb Lamb Whole Milk Replacer	20kg					
Sprayfo Primo Lamb Whey Milk Replacer (PINK)	20kg					
Sprayfo Alpha Lamb Whole Milk Replacer (BLUE)	20kg					
Milligans ExcelPlus Colostrum (15% IgG)	600g					
LaunchPad 18 Colostrum (18% IgG)	600g					
Lamb Feeder Milk Train 4 Teat	Each					
Lamb Feeder Bucket 10 Teat	Each					
LAMB COVERS						
Lamb Woolovers	Pk/10					
MARKING SPRAY PAINT						
Sprayline 200ml - Blue	Each					
Sprayline 200ml - Green	Each					
Sprayline 200ml - Orange	Each					
Sprayline 200ml - Purple	Each					
Sprayline 200ml - Red	Each					
Sprayline 200ml - Yellow	Each					
Sprayline 400ml - Blue	Each					
Sprayline 400ml - Green	Each					
Sprayline 400ml - Orange	Each					
Sprayline 400ml - Red	Each					
Sprayline 400ml - Yellow	Each					

Product	Pack Size	CALCULATOR Dose Rate (ml)	Number of Doses (Animals)	Total Quanity Required (ml)	Packs (Units) Required	Date Required
FLYSTRIKE TREATMENT (Spray-On)						
CLiK EXTRA Spray-On (See Label for Dose Rates)	20 Litre					
CLiKZiN Spray-On (See Label for Dose Rates)	20 Litre					
CLiK Spray-On (See Label for Dose Rates)	20 Litre					
APPLICATOR						
Spray-On Applicator Gun	Each					
FLYSTRIKE TREATMENT (Showering, Dipping or Jetting)						
Cyrex Liquid (See Label for Dose Rates)	10 Litre	*10 Litres Concentrate makes 5,000 Litres of Solution Approx 2 Litres of Solution per Sheep will give approx 2,500 Sheep per 10 Litre*				
CyroShield Liquid (See Label for Dose Rates)	10 Litre					
OTHER SUNDRY