

BASIC APPROACH TO DOWNER COWS

I don't know about the rest of the people who work here, but I'm a pretty basic kind of guy who likes to keep things simple. When I am called to a downer cow, the first thing I do is try and stop the cockie who is revving his bike wanting to tear off down the farm with me behind him. If I can stop him I ask a few questions before we set off:

1. How long has she been down?
2. How old is she?
3. Has she calved?
4. Have you given her anything?

Once I have established whether we are dealing with a cow that has or hasn't calved and has been down for a few hours rather than 3 days I then request about 1/3 of a bucket of piping hot water from the cylinder or house, into which I deposit 3 bags of metabolic solution - Glucalpos, Mag Sulphate and Calcium 25%. Other vets have different preferences but these happen to be my favourite three.

The vast majority of downer cows we see these days are what I call 'mixed metabolic' cows. They have a bit of milk fever, a bit of staggers and reasonable degree of ketosis/low blood sugar. Sometimes I might be lucky and it's an obvious milk fever (down with head around seemingly asleep or flat out on side not moving with barely discernable heart beat) or a classic staggers (on side thrashing legs, watch out you don't get kicked kind of a cow). If it's a classic milk fever then a Calcium or Glucalpos in the vein and calcium under the skin will do the trick (followed up perhaps by a Calol or something similar when you get her back to the shed).

If it's staggers then hopefully the farmer's description before we left the shed will have enticed me to warm up a Glucalmag (mostly Calcium with about 8% Magnesium), which I will attempt to get into the vein without killing the cow or getting knocked out, followed by a Magnesium under the skin - in your case try and get a magnesium under the skin and stand back and wait! In extreme cases I might need to actually knock the cow out to stop the convulsions killing her before the Magnesium has done its thing.

However, as I said the vast majority are a 'combo' metabolic where to be honest it's bloody hard to work out which one it is, when its probably a bit of all three. Those cows get Glucalpos in the vein (mostly calcium and glucose for energy plus a tiny bit of magnesium, but not enough to kill) and calcium under the skin on one side and magnesium on the other. Once she's sitting up we might then give her a **Starter Drench** down the throat for the extra energy she will need to get up.

Why the bucket of hot water? That's to warm the fluids up to body temperature by the time we get to the cow. They go in a heck of a lot easier if warm and are less likely to cause abscesses under the skin because they will be absorbed a lot quicker as well. A cold bottle of calcium in the vein can take so long to get in there that you wonder if it will do any good by the time it is delivered. That's why I always try and stop the farmer from taking off as soon as he sees my Ute turning up his track. An extra 5 minutes at the start can save 30 minutes or more at the other end waiting for ice cold solutions to go in a vein.

CALVING PERIOD MASTITIS - CONTROL ACTIVITIES

With spring upon us again here is a revision of the important bits from the SAMM plan in regards to helping reduce the likelihood of mastitis.

Calve cows in a clean environment

- Reduce exposure to environmental mastitis
- Calve onto clean pasture
- Do not calve cows on standoff areas

Minimise Mastitis

- Remove the calf from the cow as soon as possible after it has had a good drink of colostrum (within 12 hours of calving - it is a very good idea to stomach tube all new arrivals with 2L of warmed colostrum even if you have seen them drink)
- Completely milk the cow out by machine. Milk twice daily from first milking onwards
Be aware that this milking out practice may increase the risk of milk fever in high-conditioned, older cows and any others with a previous history of milk fever

Teat Sanitation

- Post-milking teat spraying throughout the entire lactation is proven to reduce the incidence of new mastitis by up to 50%

Minimise Teat Damage

- Minimise damage to teats as this is a major cause of new infections.
- Make sure the machine is functioning correctly with a full machine test

Newly Calved Cows

- Run as a separate colostrum mob



- Withhold milk for 8 milkings (cows) or 10 milkings (heifers)
 - Extend this period if cows do not milk out properly
- ### Fast Efficient Milking
- Ensure milk letdown, especially in heifers
 - Milk out all quarters of all cows twice a day
 - Avoid over-milking and under-milking

Leaking Cows

- Milk prior to calving to ease pressure
- Teat spray every time through the shed at spring concentration
- Do not put milk into bulk tank

Teat Spray

- Spray teats with an effective sanitiser after every milking throughout the entire lactation
- Maintain teat condition - up to 15% emollient in cold muddy conditions
- If teat condition is a problem consider teat spraying with added emollient for a week before calving
- Ensure whole surface of teat is sprayed. Use at least 20ml/cow/milking
- Use a teat spray which has "Passed Protocol A 1997"
- Use according to label instructions including mixing at higher concentrations during periods of high challenge (muddy conditions)

Thanks to the good folks who put together the SAMM Plan.

It is a really valuable tool.

Take advantage of all that good advice and use it.



Eltham Vet Services

AUGUST 2016

With all the negative news about farming & hatchet jobs by well-meaning but often ill-informed special interest groups I thought you might appreciate some good news about farming in this country. It came via an address from Jacqueline Rowarth, Professor of Agribusiness at Waikato University at a recent seminar.

New Zealand is one of only 4 countries in the world with an "A" rating for animal welfare and is the 3rd lowest user of antibiotic active ingredient per kg of agricultural animal weight. Welfare & overuse of antibiotics are probably the two biggest issues facing farming all over the world & we rank right near the top. She finished with the message that New Zealand farmers already produce milk & meat for fewer greenhouse gases and environmental impact than most countries can manage. So pat yourselves on the back; as we all knew, you're doing a great job & it's time we told people that.

Now it appears more than a few of you didn't read the covering letter that came with your RVM authority a few weeks ago. If you had, you would have seen that Mastalone is now out of stock & unavailable until next spring at the earliest. For those of you who were using Mastalone please note we have replaced it on your RVM authority with either Penclox or Lincocin Forte, or in some cases both. If you have any questions about either of these products give us a call & we'll talk you through it.

So spring's here again & with it all 4 seasons in one day, interrupted sleep, too many calves at once and uncooperative cows doing exactly what you didn't want them to do at exactly the wrong time. How you cope depends a lot on how prepared you are at the start, what plans you have in place and how much support you're getting when things get tough. So, if you haven't got a calving kit yet, put one together. At its simplest that could be 3 calving ropes (2 for legs & one for the head), a couple of handles, lots of lube and a clean bucket to put your gear in & to fill with clean, warm water. Nothing makes a calving worse than a lack of lube & clean water and then finding you don't have anything suitable to attach to the calf. So put a basic kit together & have it handy when you need it. What about downer cows? Do you have some metabolic solutions at the ready? If possible, make sure you warm them to body temperature first (that will make your job so much easier). What about pain relief afterwards if it was a tough one? Make sure you have a suitable anti-inflammatory handy, antibiotics if it was a dirty calving or dead calf, some kind of starter drench available to give the cow a boost afterwards and always put your arm back in after a calving to make sure there isn't another one still in there! Once you are sure there isn't another calf in there 5mls of oxytocin is recommended to help her clean up, get her uterus to contract (reducing the risk of prolapse) & to help with milk let-down.

And if you want a positive, happy (depending on the time of night) vet when you call us out, please try & make sure you have warm water, soap, towel and a clean bucket for us to use during the calving & to clean up afterwards.

Finally, as I write this the dairy auction lifted sharply overnight. Now that's good news & let's hope that trend continues into the season and the ASB are indeed right with their prediction of \$6 by the end of this season. I'll drink to that!

The Effect of Wet Weather

Just to reinforce my constant nagging about keeping animals warm here's some interesting facts about shivering calves:

Temperature at Which Calves Shiver:

	Friesian Calves	Jersey Calves
Dry coat, calm	3°C	9°C
Dry coat, wind	8°C	13°C
Wet coat, wind	13°C	17°C



So leaving recently born calves out in cold, windy, wet weather for any longer than necessary is basically a death sentence. Worth bearing in mind.

Scholarship Awarded to Local Student



Michaela Abbott was recently awarded the Michael Higham Memorial Scholarship after interviews at Massey University. This is the 21st year that we have awarded a scholarship to veterinary students in their final 2 years of study.

Michaela is the daughter of local farmers Stephen & Imelda Abbott & hopes to be a dairy vet when she graduates.

Michaela is congratulated by CEO, Al McDougall

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ASSISTING AT CALVING

You should provide assistance to calving heifers and cows when any of the following occur:

- Heifers not making progress within 2 hours after the first signs of abdominal straining
- Cows not calved within 2 hours after the first signs of abdominal straining
- Calving has not occurred within 3-4hrs after membranes have ruptured
- Delivery has commenced; the calf's legs or head are (just) visible externally and it is obvious the presentation is abnormal
- Delivery has commenced; the calf's legs or head are (just) visible externally and the calf is not delivered within 30 minutes for cows, 1 hour for heifers
- If you see the calf's tongue hanging out

If you think that a cow may have calved (e.g. she may have placenta hanging from the vulva) but have not found the calf, perform a vaginal exam to ensure that she has in fact calved.

If you assist too early, the cervix and vagina may not be fully dilated and by pulling you risk severe damage to the cow and more difficulty in removing the calf.

If you cannot feel the calf's head, do not presume that the two legs presented are hind limbs. They may in fact be front legs and the head is twisted back (our most common presentation when called out). Check to make sure you can positively identify the hocks of both back legs and the calf's tail before attempting to pull a backwards calf.

If a cow shows signs of discomfort during the course of the day (e.g. getting up and down, licking or kicking flanks, etc) bring her in and examine her. If the cervix feels closed but things are 'tight' and 'not right' she may have a twisted uterus and need immediate veterinary attention.

If you cannot bring the calf into the correct position within 10 minutes, or if you are not sure what you are feeling or how to proceed, stop and seek immediate assistance.

Make sure you keep things as clean as possible by using plenty of hot water, disinfectant and soap plus plenty of lubricant. Always have a clean bucket available to use when calving cows – a quick rinse of a bucket that has been used to carry milk or colostrum is not suitable.

Key Point: if it's calving season & you see a cow that looks "not quite right" the most likely reason for her looking like that is that she is trying to calve so get her in and check her out. If you don't know what you're feeling, get us out to take a look.



At-Risk Cows - Still Worth Treating

While you may decide that you don't want to spend money, Metri-checking your whole herd this season you should still be checking your At-Risk cows at least a month before mating.

You know the ones that had:

Retained cleanings	Difficult or assisted calving
Dead calf	Milk fever
Twins	Inductions
Vaginal discharge	Prolapse

The evidence is compelling that these cows, if left un-treated, will be up to 25% less likely to conceive than their herd mates. The evidence is equally compelling that if we can examine these cows and treat them at least 4 weeks before mating starts, we can reduce this % to negligible levels and give them an equal chance of getting in calf to AB. So please, note these cows down as you see them and put them up for examination 4-6 weeks prior to mating. In fact, the earlier we treat them (within reason), the better the chances of getting them in calf. Metri-clean is designed to be used from 2-4 weeks after calving (this gives the uterus time to reduce in size). Early identification, good record keeping and treatment with Metri-clean will vastly improve your cows' chances of staying in your herd for another season.



Are you feeding whole milk and milk powder together?

If you rear your calves on a mixture of whole milk or colostrum and milk powder it is important to know if the milk powder you are using is 'curding' or 'non-curding'. Whole milk and colostrum are 'curding' which means they form a semi solid lump in the calf's stomach. This curd stays in the calf's stomach for several hours and is digested there. 'Non-curding' milk powders are formulated differently and digested differently. They don't form a curd in the calf's stomach.

If you mix a 'curding' whole milk or milk replacer with a 'non-curding' milk replacer you will dilute the curdiness. It will make a sloppy curd which dribbles out of the stomach before it has been digested properly and can cause scours. So it is important not to mix whole milk or colostrum which are curding with CMRs like Brown Bag or Denkavit Whey which are non-curding. If you are going to feed a non-curding CMR, make a sudden change from whole milk. One day all whole milk, next day **all** non-curding CMR. Don't gradually increase the proportion of non-curding; that is asking for trouble.

Personally I don't like to use milk powder in calves less than 4 weeks old. Colostrum or whole milk is the best food for young calves. If you do change from whole milk to a CMR, remember it is a new food and a good idea to feed a smaller quantity for the first couple of days.

CALF SCOUR REMINDERS

I can't help but notice a few of you take big shortcuts when it comes to dealing with scouring calves. While it's tempting to think that addition of a tablet, powder or injection will sort your problem out there are a few basics that really should be non-negotiable when dealing with calf scours and calf rearing in general:

- Isolate scouring calves from healthy ones.
I note that an article in the paper recently suggested taking infected calves out of pens causes problems with socialisation later on. Personally I would rather you isolated infected calves whenever possible, not only to make individual care & treatment easier for the poor person who has to nurse them, but also to lessen the chance of spread to more calves. In a big pen this is more important. I'm sure they will all get to know each other later on.
- Don't add new born calves to an infected mob (it happens)
- Treat scouring calves with electrolytes to replace lost fluids & salts
 - ♦ If it's nutritional scours often removal of milk for one feed and replacement with electrolytes will be enough
 - ♦ If it's an infectious cause you can't withdraw milk for too long because of the lost energy that results. If the calf is really sick withdraw milk & feed electrolytes only then either add electrolytes to subsequent milk feeds (making sure fresh water is always available) or alternate during the day between milk/milk replacer and electrolytes
- **Always make fresh water available to all calves.** We are constantly amazed to find calves with no access to fresh water. A dehydrated calf will actively seek water (if it's able to stand) so make sure it's always available

Your Calves Have Scours. What Next?

- Diagnose the cause
Take faecal samples to test or get vet advice
- Clean well-draining bedding is vital; spray with virucide daily
- Have sick pen running
Move all scouring calves to sick pen to reduce contamination and spread to pen mates
- Dehydration is the killer!
Supply electrolytes in water troughs to those still drinking and feed all those not drinking individually with good quality electrolyte (Revive, Kryptade, etc.

Example feeding regime:

	Day 1	Day 2	Day 3
Morning	Electrolyte, 2L	Electrolyte, 2L	Milk, 2L
Lunch	Electrolyte, 2L	Milk, 2L	Electrolyte, 2L
Evening	Electrolyte, 2L	Electrolyte, 2L	Milk, 2L
Overnight	Leave 3L electrolyte in feeder overnight		

- Administer appropriate treatments
No matter the cost it's cheaper than dead keepers!
- Decontaminate/clean any gear in contact with sick calves
Feed sick pen last; clean any gear or clothing before dealing with healthy calves

Avoiding Scours

- Ensure every calf gets good quality colostrum feed in first 6hrs
- Mob size - < 20 of similar age
- Clean pens - good bedding, warm and no draft!
- No sudden changes to feed; meal and hay provided from Day 1. Disinfect pens before, during and after having calves in them
- Vaccinate cows for rotavirus to ensure high levels of antibodies passed onto calves in fresh colostrum!
Too late this season but remember in time for next season.



Prevention and Treatment of Cryptosporidiosis Is Now Possible



Cryptosporidiosis is often thought of as being a less severe cause of scours than the other major causes (rotavirus, coronavirus and *E. coli*), but many of those who have had a major outbreak would tell you otherwise.

And cryptosporidiosis appears to be a growing problem, with more cases than usual seen last season.

The problem is, when cryptosporidia strikes, a high proportion of calves can be infected and often for a long time. Treatment can be difficult, as electrolytes may be needed for so long that calves can become weak. So even though a lower proportion of calves usually die, the hassle and stress involved is often just as major as it is for other outbreaks. When you add in that cryptosporidia is often tied in with rotavirus, which can make a bad outbreak of scours worse,

it makes sense to reduce the effects before it gets out of control.

Halocur is a recent arrival to the New Zealand market, and is the only pharmaceutical treatment available for crypto. It can be used as both a prevention and treatment, and in combination with good management practices, will reduce the severity of scours. Importantly, it will also reduce contamination of the environment, helping to break the cycle of infection of other calves.

For the prevention of diarrhoea caused by *Cryptosporidium parvum* in at risk calves, treatment should start within 24 hours of birth. Halocur comes in a 490 ml container with a special bottle mounted applicator. Treatment is given orally at a dose of 2mL/10kg, once daily for 7 days, directly after feeding.

Halocur is expensive (around \$24 per calf treatment) and there are other non-pharmaceutical products with claims to assist treatment, in particular Kryptade (electrolyte replacer), Exogen (preventative added to milk) and a new product from the makers of Rotagen Combo (also expensive) so before you rush in to buy some for your scouring calves make sure you get faecal samples tested to see what the cause actually is.

If you are concerned about cryptosporidiosis in your calves, please contact us to discuss how Halocur may help you to control this disease.

Halocur is only available from your veterinarian.