

APRIL 2019

DAIRY MOOSLETTER

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233 State Highway 1, Bulls

48 Tutaenui Road, Marton

Email: team@srvs.co.nz

www.srvs.co.nz

Tel (06) 3222 333

It certainly has been a season of two halves. We had one of the kindest springs in recent memory which was great for grass growing and in turn making milk. We have also seen flow on effects of this with the reproductive results we have seen, many of you have increased your 6 week in calf rate and decreased your empty rate (read more in our repro summary on the next page).

Unfortunately the tap was turned off in January with no decent rainfall to speak of. Many cows are living on supplement alone. It must be some kind of record to be this dry into April. There are murmurings from some of you that it won't be very many days until the cows are dry, with mobs being dried off weekly. For those of you wanting to pick up dry cow therapy please make sure your have a consultation with your vet first and also ring the clinic prior to collection to avoid having to wait around. It's also a great time to sit down with your vet and evaluate the repro season and see where things went right (or wrong), and discuss anything else concerning you.

This month we wish Charlotte all the best as she leaves us for a years' maternity leave. We will miss having her work along side us and we know many of you will miss her too. Good luck Charlotte for this exciting new chapter!

THE INAUGURAL SRVS

DAIRY FARMER'S FIELD DAY

Join us for our first field trip! We are going to 3 local dairy farms to have a look at their calf shed set ups. The 3 farms we are visiting are farms we think rear calves well and rear a large number (500+ each).

If you are thinking about what you can do to better your set up and want to see what others do then come and have a look.

Wednesday 24th April, meet at 9.30am at the Bulls Clinic.

We will have 2 vans to take you on the field trip. Numbers are strictly limited to the first 20 people. Cost of \$20 pp, includes smoko.

RSVP to Michelle or michelle@srvs.co.nz



Dairy Repro Summary

Most dairy herds have now been scanned. There is still the odd herd to be tidied up and a number of heifers left to scan so the data produced below is current to end of March and required us having access to the data to be included. *There is a number of farms we have scanned that aren't included below as we don't have the right MINDA access or information.*

	Average 2019	Range 2019	Averages for the last 3 years			
			2015	2016	2017	2018
1 st conception rate	45%	31 – 62%	47%	45%	45%	45%
6wk in calf rate	67%	45– 78%	67%	66%	64%	67%
Empty rate	13%	5 – 34%	14%	15%	15%	14%

First service conception rates

This is the percentage of animals that held to their first AB insemination. The average for this year was 45% with a range of 31-62%. We had 3 herds on OAD for the entire season and their conception rate ranged 45-57%.

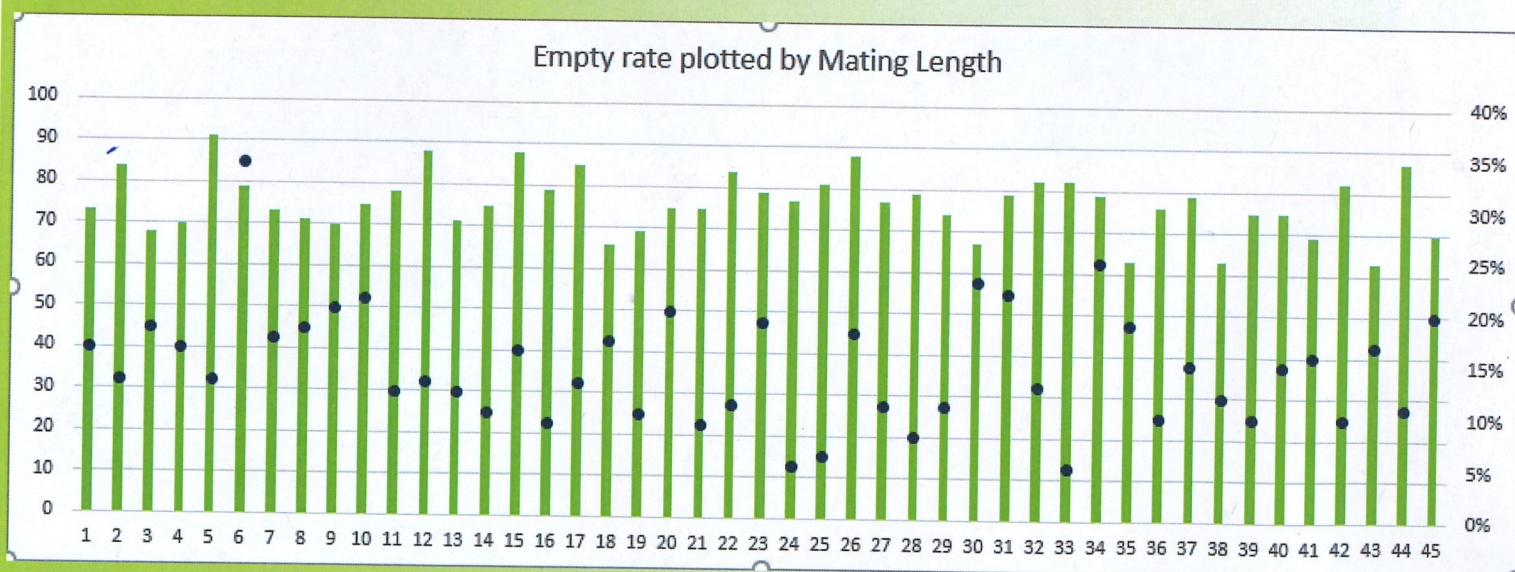
With the spring being favourable we expected to see an increase in the first service conception rate but this was not the case. What we did see was increased submission rates though.

6 week in calf rates

It is not surprising that 6 week in calf rates have held this year. The 2 key drivers of 6 week in-calf rates are first service conception rate and 3 week submission rate. The farms that still achieved a good 3 week submission rate (target 90%) had the higher 6 week in calf rates. It makes sense; you need to submit cows in order for them to get in calf. **The majority of farmers that historically use CIDRs to achieve submission rates used a lot less intervention this season. This is a reflection of the kinder season and more cows cycling on their own.**

Empty rates

The average empty rate is slightly better than last year. It is very difficult to compare empty rates from farm to farm without taking the mating length into account. The following graph shows mating length (in days) plotted with the empty rate for 45 farms that we had enough data for. You can see it is not fair to say that farm 26 and farm 35 had the same repro performance, when farm 35 mated for 25 less days. And they both achieved an empty rate of 18%. Similarly, farms 39 and 40 mated for the same number of days but farm 44 had an 8% higher empty rate. It is for these reasons we more commonly and accurately refer to 6 week in calf rates.



The green bar is the mating length in days (refer to axis on left) and the blue dot is the empty rate (refer to axis on right hand side).

Body condition score at mating versus in calf rates

We have had a look at comparing the in calf rates of cows versus their body condition score at mating. We have used the data from our WelFarm clients who get body condition scores done regularly each year. The following information has been collected from animals who were condition scored at mating time. Their condition score was then correlated to when they conceived and the following table generated by combining all the data.

BSC At Mating	Number of cows	3 week in calf rate	6 week in calf rate	Not in calf rate
<=3.0	5	20%	40%	40%
3.5	195	24%	48%	25%
4.0	1135	40%	59%	17%
4.5	717	48%	69%	13%
5.0	142	45%	71%	17%
>=5.5	16	31%	54%	23%
TOTAL	2347			

You can see in calf rates rapidly increase as the condition score at mating gets to a 5.0, then declines after that (although there are only very small numbers in the 5.5+ groups). The in calf rates between a 3.5 to a 4.0 to a 4.5 are very dramatic—an increase in 10% in your 6 week in calf rate for each 0.5 gain of a BSC. Not in calf rates also steadily decrease the closer you get to a 4.5 at mating.

This current regional data supports what we have been saying for a number years about the importance of BCS at calving/mating and it is very compelling.

There is only a small window of opportunity for you to manipulate BCS and that is now. By drying off lighter cows now you have the best chance of putting condition on to get them to the optimal 5.0 at calving, and give the biggest impact on BCS come mating time. To get better in calf rates the cows need to be as close to a 4.5 at mating as you can get them.

New BVD testing programme

After several years of active monitoring of BVD, farmers, vets and industry participants deserve a great deal of credit for the gains that have been made. It is now time to both acknowledge the great work done so far and then to reassess the best approach from here. With so many farmers now having several years of monitoring behind them we think the time is right to move to a refined testing programme.

Many of our dairy farmers routinely tick the box on the LIC paper work to get LIC to carry out the monitoring. LIC offer a blanket monitoring programme and cannot tailor it to individual farmers and it often turns out rather expensive. We have been using SVS labs for BVD monitoring on farms over the last couple of years. SVS labs offer 3 distinct levels of testing and they can also collect the milk straight from your farm just like LIC do and therefore remove the need to bring samples in. A review of results from any individual farm is straightforward and will allow the most appropriate testing regime to be selected. We believe for many this will be significantly less than what is currently undertaken and obviously then comes at a lower cost.

The important element in the process is a discussion between farmer and vet that can cover previous history, stock movements and biosecurity risks. This step ensures that each individual herd is being managed properly and that there is an active approach being taken against BVD across our region.

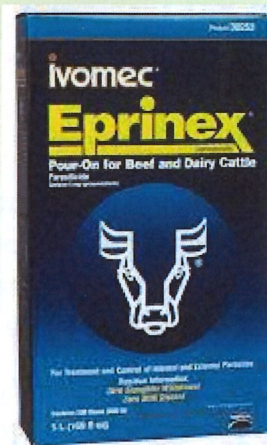
At SRVS we have worked with many clients to track infected animals. We now look forward to working with you from the outset of selecting the level of testing that best suits each client. Milk testing will remain as a tool in our fight against BVD. However, it is only part of the picture and our experiences equip us very well to work with you to develop a wider approach. This may involve a reduced level of milk testing and a consideration of the earlier testing of intended replacements. Whatever it is we look forward to having a discussion with you all at our annual consult.

Drenching milking cows

Did you know that EPRINEX is the only lactating dairy cattle product that actually has scientific evidence to show that it increases milk production and reproductive performance when cattle are treated at/or around calving time? This is because EPRINEX is different to other drenches in that it was specifically formulated for its potency against gut worms in cattle. In fact, several hundred different molecules were tested before EPRINEX was discovered and found to be the most superior both in potency and in food safety – it's the only product that has a worldwide nil milk withhold.

Studies in New Zealand, including last year an independent study from Massey University, consistently show an average of 0.03kgMS/cow/day following treatment for the rest of the lactation. Therefore, if you treat at calving you'd expect on average 8.22kgMS/cow/lactation extra over 274 days in milk. No other product can show data even close to this.

You may well think that adult cattle don't actually have worms and, you'd be right. So why do we see a productive benefit when we treat with EPRINEX? The reason that adult cattle carry a very low worm burden is because their immune system prevents the parasite from establishing in the abomasum (stomach) in the first place. The larvae from the pasture are still eaten so the immune system has to stop them from becoming adults. It's this immune response to the parasite larvae in the glands of the stomach that disrupts the feedback mechanism to the brain that controls appetite. The gut tells the brain that it's full and the cow spends more time lying and idling and less time eating (almost an hour a day). If you treat with a potent drug such as EPRINEX it seems that appetite can be significantly increased, increasing grazing time and food intake.



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Switch trimming

Annual tail scoring is a component of our WelFarm Programme.

This service shows any data trends that may be occurring in your herd, such as broken or damaged tails. One of the problems that can result in tail damage are dirty tails caused by wet switches.

New legislation now prevents tails from being docked. The alternative for preventing tail damage is to trim tails.

Tail trimming also decreases the risk of zoonotic diseases, such as Leptospirosis.

Electric trimmers make the task efficient and easy. Sian is available to assist with her own gear.



Drying off stock

The use of Dry Cow Therapy (DCT) and Internal Teat Sealants (ITS) can have a large influence on milk quality next season. With a move towards the more prudent use of antibiotics, selective DCT and whole herd ITS has become the gold standard recommendation. Compared with blanket DCT, selective does require a bit more thought and forward planning, therefore milk quality consults and DCT authorisations have become even more important. Soon we will start ringing around to organise these but if you expect to dry off a large number of cows early then please ring in advance to have your consult

Drying Off

As April has quickly snuck up on us, we can now start thinking about dry off and a much needed break for you and your cows! Before these sleep-in's can start, we do need to organise a few things:

Before drying off

- Decide your drying off date in advance
- Consider drying off a portion of the herd early: light cows, early calvers, high somatic cell count cows etc.
- Make sure you have a herd test booked in the last 4-6 weeks of lactation – this is important for identifying who requires dry cow therapy when using selective treatment
- Book in your milk quality consult with your vet

At dry off

- In large herds consider drying off cows in batches over a number of days to make things more manageable. One person can only be expected to dry off ~**20 cows per hour** (if someone is going faster than this they aren't cleaning and administering correctly). Alternatively consider getting help: we are more than happy to assist you with DCT and Teatseal administration, just book us well in advance.
- Milk the cows normally and draft off the cows that are to be dried off that day. Clean the shed, have some breakfast then return for drying off.
- Clearly identify cows needing only **Dry Cow Therapy**, those needing only **Teat Seal** and those needing **Combination** therapy
- Make sure you have everything ready: have more than enough product and teat wipes on hand and have teat spray made up at the highest strength recommended for high risk periods.

Administration

- If administering yourself ideally have multiple trained people to help administer. We will go through the process with you at your milk quality consult if needed and have some handouts to help teach others. Please take the time to teach any new people, if done poorly the whole process can not only be an expensive waste of money but it can also cause more damage.
- **Do not immerse the tubes in water.** If the tubes need to be warmed, place the Dry Cow/Teatseal bucket (with syringes inside) in a tub of warm water.
- Wear gloves and make sure these stay clean throughout the process – change them if necessary!
- One teat should be disinfected and treated at a time, starting with front teats. Use a standardised order e.g. front left then clockwise around the udder. This makes it easier to remember which teats have already been treated if you get distracted. For the same reason we recommend you only take four tubes at a time to put in your pocket, so one quarter doesn't get more than one tube by mistake.
- Even if recorded as Teatseal only, if teats have **teat end damage** that makes them difficult to clean e.g. black spot or hyperkeratosis as in those teats pictured, always give these cows' combination therapy (and record as doing so!).
- Make sure you scrub the teat end with a new area of teat wipe or new cotton wool swab until **no further dirt is visible on the wipe/swab**, before inserting a tube.
- **Partially insert** the nozzle (up to 3mm). If you are using Dry Cow antibiotics massage upwards from the teat into the quarter. **Do not massage Teatseal up into the udder.**
- Apply **teat spray** appropriately to the treated teats.
- Clearly identify the cow as being treated e.g. spray paint on the udder, and record her number and treatment given.

Aftercare

- Once treated the group should be walked quietly to **clean pasture** and given access to water and maintenance feed allowance. **Do not use a feed pad before or after dry cow therapy insertion.**
- Keep treated cows on clean pasture (ideally not crops) for at least the next **48hrs**, and do not truck in this time.
- **Monitor** cows for signs of mastitis for the next 1- 2 weeks.



Facial eczema

The spore counts are on the rise and we are starting to see clinical cases of Facial Eczema in sheep, which means liver damage is also likely to be occurring in dairy cows and young stock.

Skin lesions are only the tip of the iceberg but that is what everybody sees on the outside. Facial eczema studies show that, if about 3% of the herd/mob are showing skin lesions, then **up to 50% can have liver damage**, which is where the real impact occurs.



Dairy cows have extreme metabolic demands and the liver is an essential part of these metabolic processes. In addition to photosensitivity and markedly reduced milk production in the current season, effects further down the track include increased slipped calves, chronic wasting cows and a higher incidence of ketosis and non-responsive downer cows at the following calving.

Young stock are not exempt from the effects of facial eczema – animals that have liver damage will have reduced weight gains, which in turn

affects their future milk production and reproductive performance.



Minimising the impact of Facial Eczema is achieved by:

- Administering zinc, either in the form of an oral bolus (which lasts 4 weeks) or through feed/water – all dairy cows should be receiving zinc supplementation at full FE dose rates by now
- Pasture spraying with fungicides to prevent fungal growth. This works best when applied to *growing pastures*.
- Pasture management – Ensure cows are grazing to target residuals (grazing too low increases the amount of spores ingested) and avoid any paddocks that you know are 'hot' when spore counts are high (these are often sheltered, lower lying areas).

Once the liver is damaged there is no magic fix – all we can do is provide supportive therapy to give the animal the best chance possible.

Anti-inflammatories and anti-histamines help reduce the pain of skin lesions; cows with skin lesions must be given protection from sunlight, either by applying a sun-blocking cream daily to affected areas (e.g. Filtabac®), putting on a cow cover or giving access to a shed or trees for shade. Severely affected animals should also be drenched with an oral tonic like Manderson's Mix, Liverade or a Starter drench, and injected with Selenium + B12 (if they haven't already), to help support their immune system.

Spore counts have been high for all of March and we anticipate them to stay high well into April therefore prevention plans should be implemented by now.



Trace elements

Adequate trace mineral levels are essential for optimal cow performance. Soil and pasture testing for trace elements can be useful but results do not always correlate well with what the animals are actually absorbing and storing. This is even more relevant on farm where a lot of supplement is being fed. In addition to this, we are no longer only testing to check for deficiencies or adequacy – on farms where high level of PKE have been fed and/ or sub-clinical liver damage is prevalent (e.g. From Facial Eczema) we are now finding herds where the copper levels in the dairy cows are too high.

TESTING: This is where liver biopsies and blood testing are invaluable. Prior to drying off is a good time to get this testing done because trace element levels in the pasture are at their lowest over winter months (when the physiological demand for them is increasing due to growing foetal requirements), therefore it is a good time to supplement further, if required.

Copper is stored in the liver, so the only way to know how much a cow has available to use is by measuring the copper levels in the liver tissue – blood testing for copper will only show how much is circulating in the blood supply at that point in time. So a cow could have adequate copper levels in her blood but be on the verge of deficiency or toxicity in terms of her liver copper levels. Liver biopsies are a low risk and efficient procedure. Blood testing is a good measure for checking Selenium levels and is easily done at the same time as liver biopsies.

HEIFERS: Replacement heifers are a group that often get forgotten about when it comes to trace element testing and supplementation, and yet these animals are the future of your herd! Trace element deficiencies cause decreased growth rates, a depressed immune system and affect fertility. Most farms around this region should be supplementing their young stock with selenium and copper, but testing prior to and after administration gives us more information so that we can make informed decisions on how often, how much and via which method we supplement these trace minerals