

## What's Up Doc?

By Jackie Davies

**It has been looking good out on-farm! Lots of grass, recent rain (50mm near Hamilton), and a useful payout! Grass quality has started dropping, so topping paddocks or making silage are great ways to keep this up.**

Going off the old saying "could be a drought", last year showed us how useful a drought could be in reducing FE spores, weeds, pests and slugs.

Bulls are out on many farms. Remember, any lameness in the back feet of bulls will stop them from jumping cows properly and they should not be used.

Across the district are a number of early calving cows that haven't come back to cycle, as well as "phantom cows" who cycled pre-mating, then shut down. If you are concerned about these, consider early scanning to help with planning next year's spring.

There has been a lot of lungworm in youngstock. It is important to worm drench regularly, however, if drenching doesn't improve coughing in calves, then the problem could be pneumonia, which can occur with changeable weather (both cold, and dry, dusty weather).

This is also the time for putting copper bullets in your drystock, prior to the facial eczema season. There have been a few fractured humeri seen this season in two-year-old cows, which is thought to be related to feed pinches and/or copper deficiency during the growing period; a good reminder of the importance of copper!

Fonterra animal welfare plans have been tweaked this season. We may contact you to see if we can fill this out at a separate time from the dry cow consults, to ensure we do it justice, and hopefully help to make some useful and meaningful changes on-farm, or show

## What's happening on-farm?

- ✔ **Lame cows and bulls**
- ✔ **Early pregnancy scanning**
- ✔ **Copper, Se and B12 for calves**
- ✔ **Bulls out**

how awesome a job you are doing!

If we don't see you before Christmas, Merry Christmas and we hope you have a fantastic New Year, from all of us.



## A look at teat scoring

By Beth Martin

**Maintaining a Bulk Milk Somatic Cell Count (BMSCC) under 150,000 cells/ml is a sign of a healthy productive herd. To keep BMSCC down, there needs to be low levels of mastitis in the herd.**

Mastitis is the end result of complex interactions between the cow, bacteria, the environment, milking machine and the farmer.

The aim of mastitis control is to limit the number of bacteria on the cow's teats and to reduce the risk of bacteria

entering the udder through the teat canal.

Checking (or 'scoring') a cow's teats is a great place to start. If we can ensure all cows in the herd have great teat skin condition, through good teat spraying and minimal damage to the teat-ends, then we are a long way to producing more milk of higher quality.

### On-farm example

On the following page are the results found by a corporate farming group that

undertook teat scoring on all its farms.

Teats were assessed in early lactation, allowing the vets to make timely recommendations that the farm team could action straight away, rather than waiting until dry off.

**Depending on the farm, the recommended actions included alterations to teat spray coverage, increasing levels of emollient in the teat spray mix, or reducing over-milking by getting cups off earlier.**



Once the actions were implemented, and following a good drying off programme, the average BMSCC across the 5 farms dropped from 200,000 in the 2021/22 season to 130,000 in the 2022/23 season.

Based on 5,520 cows averaging 400kgMS/year and a \$7 payout, the 'cost of mastitis calculator' shows **this is worth a whopping \$174,000 in increased production plus the added benefit of fewer mastitis treatments, less antibiotics used and less time dealing with mastitis cases.** That's an amazing payback benefiting everyone - especially the cows!

**Assessing teats**

Vets are trained to assess teats and perform teat scoring during mastitis investigation. However, if you want to

Farm	Teat skin condition		Teat spray coverage		Teat ends	
	Supple	Dry	Full coverage	Part coverage	Normal	Rough
1	12	88	0	100	98	2
2	100	0	100	0	84	16
3	92	8	100	0	92	8
4	94	6	75	25	98	2
5	82	18	75	25	100	0

Figure 1. Corporate farming group teat scoring results

get an idea of the teat health on your farm, assessing 50 cows' teat skin condition and teat-end damage in early, mid and late lactation can give an early indicator of problems.

AgriHealth has a great teat scoring chart that can be used to assess and track progress, check it out below.

**The targets**

- ✓ **Teat skin condition >90% supple**
- ✓ **Teat end damage > 80% normal**

If your results are below target, ask your KeyVet for advice.

Sources: AgriHealth & DairyNZ

Figure 2. AgriHealth teat scoring chart



**All things trace elements!**

By Ryan Olesen

**As calves go out to graziers, it is important to ensure that they have enough building blocks to support their growth into the 2025 season.**

With so many products available, it can be difficult to determine which are best for your calves. The following is a summary of three main trace elements that may affect their growth rate and some supplementation options.

**COPPER**

Copper (Cu) is important for maintaining a healthy nervous system, bone growth, immune functions and antioxidant activity. **Cattle require feed levels of 10mg Cu/kg DM** (dry matter), if Mo levels are less than 1mg/kg DM and Fe levels are less than 300mg/kg DM.

A deficiency of copper can occur due to

low levels of copper intake in the diet, or high levels of minerals that interfere with the absorption of copper in the gut. These minerals are Molybdenum (Mo), Iron (Fe) and Zinc (Zn). Eating high levels of soil affects the intake of these minerals, as does Zinc dosing for facial eczema prevention.

Peat soil copper to Molybdenum levels can change dramatically





over the season, with the highest Molybdenum levels in spring. The ratio of Cu:Mo is required to be over 4.

### Deficiencies

Clinical signs of copper deficiency include:

- Rough coat,
- Severe scouring,
- Slow growth rate,
- Delayed puberty,
- Difficulty in walking,
- Bone fractures,
- Weight loss,
- Reduced milk production,
- Impaired reproduction.

### Supplementation options

*Oral supplementation:*

There are a few options here, including:

- **Copper sulphate pentahydrate**, which can be given through the dosatron or in fertiliser. For the latter, application in spring/autumn will cause Cu concentration to peak quickly then decline, but remain slightly elevated for months. Note that clovers tend to take up Cu more than grasses do.
- **A copper bolus**, such as Coppermax or All-Trace, can be given no more than once a year and will be effective for 6-9 months.
- **Oral drench** is a short term option, which will last between 1-4 weeks.

*Direct supplementation:*

- **Copper injections**, such as **Multimin**, are effective for 6-8 weeks in cattle and have the advantage of bypassing Mo in the gut.



### SELENIUM

Selenium (Se) is important for the growth, health and metabolism of grazing livestock.

It is present in many tissues and has antioxidant properties that help to protect and prevent damage to cell membranes, large proteins and nucleic acids, such as DNA. Se is also a cofactor for control points in thyroid metabolism and has roles in maintaining the integrity of the immune system.

**New Zealand studies suggest that supplementation in a cow's diet benefits herds up to 0.10mg Se/kg DM (2 mg Se/cow/day)**, with no additional advantage beyond that.

### Deficiencies

Low dietary intake of Se causes cows to draw on stored forms of it in liver and red blood cells.

Over time, this can lead to:

- Reduced milk production,
- Impaired reproduction,
- Reduced growth rate,
- (More subtly) as increased risk of chronic diseases related to immunity.

The most common and important signs of Se deficiency are ill thrift and poor growth in calves.

White muscle disease is also associated with Se deficiency and is characterised by non-inflammatory wasting of skeletal and cardiac muscle. Calves can be affected from 1-4 months of age.

### Supplementation options

*Farm treatments:*

- **Topdress fertiliser with Se prills,**
- **Se drench through in-line water dispenser.**

*Drench – effective for several weeks:*

- **Oral supplementation,**
- **Mineralised anthelmintic drench.**

*Subcutaneous injection – effective for 8-12 weeks:*

- **Prolaject B12 + Se (selenate),**
- **Multimin (sodium selenite).**

*Intraruminal bolus – effective for 8-12 months:*

- **Tracesure,**
- **All-Trace (sodium selenite).**



### COBALT / B12

Cobalt (Co) is an intrinsic part of the vitamin B12 molecule.

Low dietary intake of cobalt leads to inadequate supply of B12 and eventual nutritional deficiency. **Intake requirement rate for cattle is 0.06 mg Co/kg DM.**

According to studies, 20% of herbage samples on New Zealand farms did not meet these requirements.

A cow's **diet can influence how much Co it needs**, with grain fed cows requiring higher levels of supplementation, at 0.15 mg Co/kg DM.

### Deficiencies

Cobalt deficiencies are more common in sheep, as they have higher requirements.

However, inadequate intake during the rapid growth period from birth to grazing can lead to suboptimal weaning weights and dull coats.

### Supplementation options

*Oral treatments:*

- **Mineralised anthelmintic drench.** Water soluble supplementation is good for short periods (1-4 weeks). A lot is excreted in faeces in the first 2-4 days.
- **Intraruminal bolus**, which maintain B12 status for 6 months. These are only suitable for animals with mature functional reticulorumen, where Co is released for up to 12 months.
- **Topdress fertiliser**, in early spring, with cobalt sulphate.
- **Water dispenser with Co salts.**

*Direct treatments:*

- **Prolaject B12 2000**, which is effective for 4-6 weeks.



### Want further help?

Give your KeyVet a call if you would like to discuss the best supplementation options for your stock, or if you have any concerns about trace element deficiencies in your calves.

*References: Trace Elements and Minerals, Bayer.*



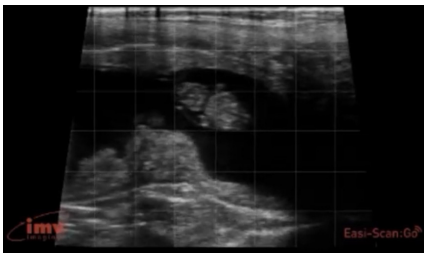
## Getting prepped for scanning

By Alvin Stanley

With calving not long over and mating still very much in full swing, it may feel like it's too early to start thinking about scanning. However, planning your scanning now will make it easier to secure the dates that suit you best, so that you can get the most out of it.

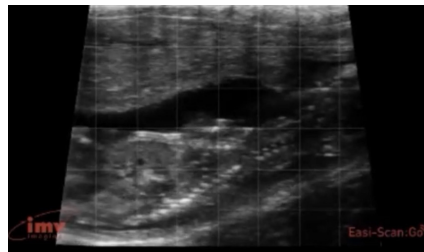
In cows, we ideally want to be scanning between 40 and 100 days after mating in order to provide the most accurate dating. Beyond 100 days, calf size has increased to the point where it becomes much more difficult to take measurements and provide corresponding dates with any accuracy.

### Our view of a calf foetus at various gestation stages:



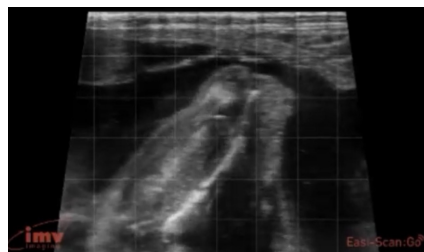
Scan 1:

A 39-day-old foetus. It's small, grey and almost peanut shaped, surrounded by black. It's quite small and easy to measure at this stage.



Scan 2:

A 64-day-old foetus. We can see the body, in particular the bright glowing bones of the ribs, surrounded by jet black fluid. It's now longer than the screen but we're able to measure the width of the ribs, or the head diameter, for an accurate estimate of age.



Scan 3:

A 120-day-old foetus. Here we can only see the nose of this calf on our screens. We no longer fit even just the head on our screens as they've grown so big. This makes taking measurements of the head or body impossible and leads to only rough estimates of ages.

## Scanning options

You generally have two options for trying to get accurate dates for as many cows as possible:

**Option 1 – Pick a scanning date where the majority of your cows are likely to be within this 40-100 day window (generally this is about 6 weeks from the end of mating).** With tighter calving patterns, this is doable, but, if your mating season runs longer, it can become a bit more difficult.

Even now, while mating is in progress, if you have a planned pull-out date for the bulls we can plan for the ideal date, and by booking in early we can make sure we're available during the upcoming busy period for the date that suits you.

**Option 2 – Having two scanning days. A first, earlier scanning session to pick up the portion of the herd mated within the first six weeks, and a later scan for those that fall outside of this period, and to confirm empties.** In herds with a slightly wider calving pattern, or where there's been a difficult mating season (particularly in the first six weeks), this allows for better aging accuracy across all the cows.

This will obviously be of benefit for the upcoming calving season, but also a massive help looking back at this year's mating season, as our 3-week and 6-week in-calf rates will be more accurate. If we're trying to fine tune things for next year, or investigate an issue during mating, this kind of accurate information is essential.

## Booking in

Our front-of-house team will be able to help you with booking your ideal dates for scanning, whether you're going with option 1 or 2, and I'd really recommend getting in touch sooner rather than later.

If you've any questions about which option would be best for you, or when the best time to get us out to scan would be, our vet team would be happy to discuss with you.

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