

# DIGEST

LOWER NORTH ISLAND  
**WINTER 2016**



Calf rearing front and  
centre

**P2**

Feed to beat ketosis

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SealesWinslow is a recognised leader in the production of high-performance compound feeds and feed additives. A fully owned subsidiary of Ballance, SealesWinslow has manufacturing sites located in Morrinsville, Ashburton and Whanganui, and supplies custom-blended pelletised feed to farmers throughout New Zealand. It also provides calf feed, mineralised molasses blocks, feed supplements and additives.

# CALF REARING FRONT AND CENTRE

When it comes to rearing calves, be it for replacement heifers or dairy beef, some basic nutritional guidelines make a notable contribution to overall success. They can be easily incorporated into any approach and will deliver good rewards.

Calf rearing counts among the farm disciplines that allow a degree of flexibility. Aspects such as feeding and weaning strategies are therefore often based on personal preference, or what works best alongside the many other roles and responsibilities on the farm.

Regardless of your regime, there's one critical success factor to be aware of, namely "consistency of approach".

You're well advised to give your calves the same level of care, from the day they're born until they're



weaned and in the paddock. The basics are good draught-free housing, clean water and quality feed (without signs of deterioration or a whiff of mustiness).

The focus on consistency is particularly important in matters of nutrition. The first and most important building block is good-quality colostrum. Its impact cannot be overstated; it delivers essential vitamins, minerals and immunoglobulins, all of which build immunity to disease and help to minimise health issues. SealesWinslow ruminant nutrition expert, Wendy Morgan, emphasises that colostrum should be fed as early as possible (ideally within the first six hours) and for at least four days, after which time you may move onto milk or calf milk replacer.

### **But liquid feed is only one part of the recipe!**

As future ruminants, calves need to be introduced to solid feed very early on to ensure optimal development of their rumen. This is an important detail because the rumen (more specifically its papillae) determines how well nutrients can be absorbed.

Muesli and/or pellets, in addition to some hay or straw for roughage, are a great feed combination during the first few weeks in a calf's life.

### **So, what should you look out for in feed composition?**

First and foremost, look for nutrient-dense feed without so-called "fillers". Wendy's recommendation is to simply check the label or ask your rep. Aim for

a high metabolisable energy level of 12.5 – 13 MJ/kg. What's more, it should come only from quality ingredients. "Waste from lolly, chocolate or biscuit manufacturing can end up in calf feed because it's cheap. But it doesn't add any nutritional value beyond sugar and some starch. It also makes it difficult to achieve a consistent product, because the waste itself is quite variable. We therefore avoid it."

Secondly, be careful to select a feed with the right protein content. Pellets with 20% crude protein, for instance, are specifically formulated for the needs of the very young calf, while the 16% equivalent is designed for older calves that are already getting some protein from pasture.

Once again, it pays to closely examine what's on offer because, as Wendy explains, proteins aren't created equal. "Ideally you want your feed to contain a high level of amino acids that help the calf grow lean tissue." These amino acids come from quality plant ingredients such as soya bean, cottonseed, sunflower or canola.

Her final advice is to take a moment to evaluate the perception that feeding high levels of milk to calves is a cheaper option than buying pelleted feed. She recommends you "make sure that your decision is based on sound figures rather than assumptions or beliefs." Even in the current below-average payout scenario, you might be surprised what you find when you do the sums. Chances are, you'll keep the milk in the vat.





# FEED TO BEAT KETOSIS

As one of the most common metabolic disorders seen on modern dairy farms, ketosis is a major source of frustration, not to mention costs, for New Zealand farmers. While it can be treated, it's better to prevent it in the first place. The right feed management has everything to do with it.

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The first week post calving is arguably the most important for the modern dairy cow. Her performance during this time is a reliable indicator of her capacity for the remaining lactation. In other words, any production losses post calving will be further magnified later on!

For the cow to transition smoothly from a "dry" state into full lactation she needs a balanced mineral intake and sufficient feed to prevent weight loss and the health issues that come with it - notably ketosis.

It's critical that she feeds during calving. If feed is inadequate (either from underfeeding or poor-quality feed), or if the cow does not eat because of other metabolic or calving problems, you quickly run into problems. "Her body responds by mobilising its own fat reserves to make up the deficit," explains Paul Sharp, SealesWinslow Science Extension Officer.

"But if the deficit is too large, her liver can't process enough fat into readily metabolisable energy, and ketosis will occur," he cautions.

The least damaging scenario, subclinical ketosis, will adversely impact the milk production later in the season and cause cycling/reproductive problems. At the clinical end of the scale, the problems typically expand into other metabolic disorders and potentially the death of the animal. With ketosis affecting up to 5% of a herd, this can be a very troubling problem indeed. Reason enough to avoid it.

## Key points to help combat ketosis:

- ✓ Ensure that the animal has **sufficient quality feed during and around calving time**.
- ✓ Remember that **feed intake in the hours around calving** is of utmost importance.
- ✓ Include a **high quality pelleted feed** though the calving and early lactation period, be mindful to provide **high energy concentrations and minerals** in the diet.
- ✓ Provide **constant and ad-lib feed** from calving through to the colostrum herd, **especially during adverse weather** when pasture utilisation can be compromised.

## RECOGNISE SIGNS OF KETOSIS

1. Wasting Form of Ketosis
  - Lethargy
  - Decreased feed intake
  - Decreased milk production
  - Often a sweet smell on the breath
2. Nervous Form of Ketosis
  - Excitable, uncoordinated, sometimes aggressive
  - Strange behaviour (e.g. eating soil, licking fence posts, walking in circles)



# A WINTER BOOST FOR BEEF

Given the relatively poor state of pasture over winter, many beef farmers accept negligible growth rates for their cattle by default. And yet, even in the face of low pasture quality there's every reason why meaningful stock growth can be achieved. If you're interested in doing just that, then read on.

There's no two ways about it, winter pasture offers cattle little or no chance for growth. Bare maintenance is often where it's at. For the farmer, the financial return on their pasture over the winter is about as poor as it gets. All hope is vested in the vitality of spring pasture to rapidly finish the animals for a good sale.

De-stocking can be an option. While you'll miss out on premium spring prices, it can be useful in mitigating any damage to wet pastures from pugging and compaction.

SealesWinslow Science Extension Officer, Paul Sharp, suggests looking beyond ... towards growth. His advice is to draw on the cheapest feed source first, but also to scrutinize it with a focus on quantity and quality. "Even if you have reasonable crop availability, it will likely be deficient in vital nutrients and minerals, leading to lower feed intakes and reduced growth rates," Paul notes.

He makes a compelling case for supplementing with good-quality feed and offers realistic examples. Adding pasture silage, for instance, (see box, example 1) results in good improvements. However, the actual rate of growth will be limited by the available nutrients or minerals. Adding trace elements therefore makes sense; this is ideally done with a lick block that also promotes forage intake.

Where animals are fed on low-quality winter pasture, Paul recommends improving the nutrient

Example 1 <sup>2</sup> 400 kg Steer	Change
Fed at maintenance on pasture or winter crop	0.0 kg/day LWT
Plus 2 kg DM/day good quality pasture silage (11 MJ ME/kg DM)	+ 0.5 kg/day LWT

Example 2 400 kg Steer	Change
Ad-lib feeding low-quality pasture (9.5 MJ ME/kg DM)	0.0 kg/day LWT
Plus 2 kg DM/day high-energy pelleted feed (13.5 MJ ME/kg DM)	+ 0.7 kg/day LWT
MJ ME intake additional	+27 MJ ME/day
Pasture intake reduced by 0.5 kg DM/day	-4.5 MJ ME/day

level by adding a high-energy pelleted feed (example 2). This is a very efficient way to boost animal growth.

"It's also prudent to examine your grazing strategies and their effect on overall quality of the pasture," adds Paul. "If, for instance, inadequate grazing patterns, such as under-utilisation, resulted in poor pasture, then you'd best rectify that first."

All in all, winter cattle growth is eminently achievable. For further assistance, or to help calculate your return, contact your friendly SealesWinslow team.





# TRANSITIONING FOR BETTER ANIMAL HEALTH AND PRODUCTIVITY

In the three weeks before and after calving, the dairy cow undergoes profound physiological changes. Give her the right nutritional support during that time, and her metabolism will deliver ample rewards well beyond calving, throughout the following lactation.

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During transition, the energy of the close up dry cow is diverted from growing her calf to meeting lactation demands. This burden on her metabolism puts her body under immense stress, making her highly susceptible to health issues such as ketosis and milk fever.

While a percentage of animal health problems are a statistical reality – especially around calving time – those problems can nevertheless be averted or at least minimised. And the good news is that you can do so by drawing from your readily available nutritional arsenal.

## Boosting immunity

“The overall aim is to boost your cow’s immune system,” says SealesWinslow Nutritionist Wendy Morgan. “This gives her the necessary ammunition to fight any infections she may face.”

A good place to start is with a quality transition pellet. It only needs to be offered in small quantities but it’s helpful to get the animal used to pelletised feed, especially if it’ll form part of the post-calving diet. Wendy recommends pellets that contain starches, bypass protein (which allows better utilisation of essential amino acids and results

in improved milk production) and, importantly, organic minerals. “These minerals not only boost the immune system but are also passed on to the calf in the colostrum,” she notes.

## Only best practice will do for magnesium

A key mineral requirement is magnesium. It’s not well stored in the animal and needs to be provided daily – ideally in different forms during transition, for instance as magnesium oxide and/or magnesium chloride. It will help to combat milk fever when given on its own before calving, and in combination with calcium thereafter.

While magnesium is widely used, studies show that the typical application (i.e. dusting on pasture or adding to drinking water) is often insufficient unless meticulous “best practice” processes are followed.

It’s also important to keep an eye on dosage because in higher concentrations, magnesium quickly becomes unpalatable to cows. “To prevent this you can easily mask the flavour by mixing it with other feed,” suggests Wendy. “That way you can ensure uptake.”



Of course, you can also opt for dehydrated lick blocks such as Crystalyx Dry Cow, supplied by SealesWinslow, which eliminates hassle and guesswork altogether. This is a very convenient option and its effectiveness has been proven during evaluation trials, where animals provided with Crystalyx Dry Cow experienced fewer cases of mastitis and less retained placentas. It's also formulated to deliver better rumen performance and improved appetite post calving, which is important in preventing ketosis (see previous article).

#### Get next season's feed off to a good start

Now is a good time to give the silo a good clean and inspect it for leaks. Last year's mouldy leftovers can easily taint the fresh feed and make it unpalatable. Your animals will thank you!



## REGIONAL WEATHER OUTLOOK

El Niño conditions in the tropical Pacific weakened further during April 2016, with sea surface temperatures now typically only about +1°C warmer than normal. Moreover, cooler than normal sub-surface waters have spread eastward from the western Pacific, and temperatures are more than 3°C below normal between 50 and 100m depth east of 160°W. These changes in sub-surface temperatures mean the tropical Pacific is poised to make a rapid transition into La Niña conditions.

International guidance indicates that neutral ENSO conditions are very likely (76% chance) over the next three month period (May – July 2016), as a whole. The likelihood of La Niña development increases

into early spring, with a 52% chance over August – October 2016, and a further increase to 60% over November 2016 – January 2017. Forecast models indicate it is very unlikely (less than 10% chance) for a return of El Niño conditions during the rest of 2016. Because of the good chance of La Niña forming later in 2016, NIWA is on a La Niña “Watch”.

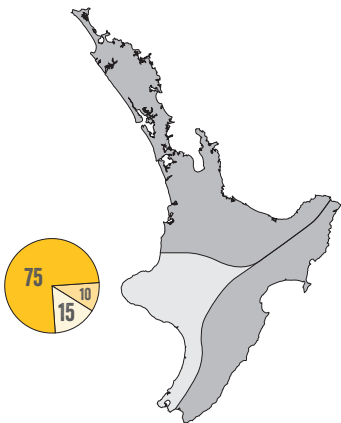
For May – July 2016, above normal pressure is forecast to the north and northeast of New Zealand. This circulation pattern is likely to be accompanied by anomalous north-westerly wind flow.



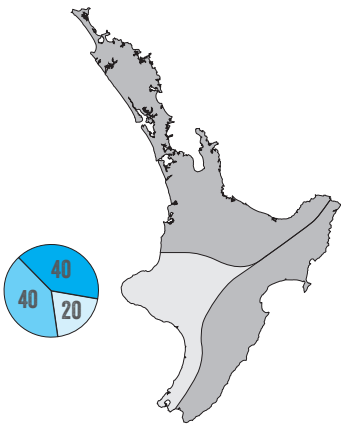
Regional Weather Outlook Continued

**May – July 2016** temperatures are very likely to be above average (60-75% chance) in all regions of the country. Nevertheless, June and July are winter months, and frosts will occur from time to time in cooler locations. Sea surface temperatures are forecast to be above normal over the next three months, especially to the west of New Zealand. Rainfall is likely to be near normal or above normal (40-45% chance) in the west of both islands, and in the near normal range (45% chance) in the east of both islands. Soil moisture levels and river flows are likely to be near normal or below normal (35-40% chance) in all North Island regions.

Air Temperature



Rainfall



Soil Moisture

