
DAIRYTECH NUTRITION

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Winter Woes

Winter always brings its share of trials multiplying workloads; but it sure beats drought. Many dairying areas were quite wet by May this year, bring with that potential pasture damage, wet tracks and their inherent problem of lame cows.

The last few years of financial difficulty has taking its toll in reduced maintenance costs, particularly farm tracks. Lameness reached an all-time high last winter and this year looks like matching it. The most common form of lameness I see is simply from soft and tender feet. The cow that develops lesions is easily identified by carry one leg. The less noticeable are those with all four feet sore. These are best identified by hunched backs as they don't necessarily favour any particular foot.

We started last summer including Biotin in all our dairy premixes after last winter's heavy toll on cows and their productive capacity. Biotin is a naturally occurring B vitamin, and serves to 'seal' moisture entering hoof fibre. This prevents hooves softening, becoming tender and sore, but also minimises the risk of bruising or puncturing of the sole from stones on what, in many cases, are tracks that have had little maintenance in recent years. White line lesions are most common.

The problem is magnified in fresh cows, as collagen, a protein found in connecting tissue, breaks down around calving due to hormones associated with pregnancy. All mothers can verify this in hair, skin and nail condition in late pregnancy. Biotin needs to be fed for six months prior to winter.

Another preventative measure is the spraying of tracks, particularly the last 100 meters before the dairy with Vibrex. Vibrex will kill infectious bacteria even in mud! We have seen very good results with Vibrex on tracks, calf sheds and calving pads for both infectious diseases of calves, cow's hooves and environmental mastitis. Vibrex is available from Total Agronomy, Warragul (03 5622 1445).

Lameness is often the primary cause of acidosis in winter due to cows preferring to lay down than graze. The effect of this is reduced fibre intake creating a grain to forage imbalance manifesting itself in lactic acid accumulation in the rumen. This will only increase lameness inherent from acidosis. Another issue to consider in lameness is acidosis in the preceding spring from lush pasture, which will manifest itself as poor quality sole tissue six to eight months later.

Fertility has become a popular topic in recent years, and can be impaired by nutrition through transition management and post-calving in both energy deficiency and metabolic disease associated with calving. I believe lameness, particularly the more sub-clinical form described above from simply sore and tender feet, can cause cows to lay down than engage in heat activity – silent heats. With many southern Australia herds calving in autumn, winter presents its own toll on fertility.

Genetics is not excused in this debate either; however, as I discussed in February's article, I'm convinced our management needs to come under scrutiny also. The traditional six to eight weeks of AI then turn the bulls into the herd is no longer acceptable in our rapid economically intensifying industry. The term "carry-over cow" in today's economic dairy environment makes me shudder.

Our famous carry-over cow is a major drain on farm profit, and is most likely to continue the family trait into the future. Typically, if she gets in-calf at 400 days, she crashes in milk. She's dried off soon after to enjoy a not-well-earned long service leave. The cost of this is in the vicinity of \$250/cow, more than the average margin in recent years. Further insult is that she restricts, both from not calving, and obstantly holding a place in the herd, being replaced by a genetically superior heifer that has far greater longevity/production potential. I know; she never gets mastitis and she's a favourite!

As discussed in February's article, after blaming the vet, the feed mill/nutritionist and the genetics company, we can then look seriously at the math of joining. Six weeks AI is not long enough to catch all potential candidates. This is just two cycles, if on time. The spread of calving and the time the herd was exposed to both AI and the bulls needs reviewing also. Synch programs, in conjunction with early pregnancy testing (five weeks), have been very successful, particularly in large herds to minimise fertility problems. A good self-examination is comparing average calving date for the herd against previous years. If we are progressively lengthening lactations, then we have a fertility problem even if we don't have a significant number of carry-over (or fertility culls).

Mastitis we looked at in last month's article in regard to dry cow/teat seal and transition nutrition, and above by sterilizing tracks, calving pads and any other high risk mud areas. Mastitis can also be an indicator of suppressed immune function and needs investigation from this perspective too. Assessment for Pestivirus through blood tests may reveal a major cause fertility stumbling block.

Cows cope exceptionally well with cold temperatures, however, body heat exchange to wind is another issue. Ruminants produce abundant body heat through fermentation of fibre and accentuate heat stress in summer as a result. Winter provides opportune utilization of this fermentation heat. In cold windy weather particularly, to increase fibre intake (hay preferably) will at least hold production by increasing heat produced from rumination. Increasing grain will lift energy, but it is short-lived due to rapid fermentation and needs to be balanced with forage/fibre intake. Often a combination of increased hay, complemented with grain increase, will maintain energy density and total dry matter intake when pasture grazing usually decreases, particularly in wind driven rain.