

Metabolic Disorders – prevention with Gain

Metabolic Disorders cause major losses for individual cows and dairy herds each spring. A metabolic disorder case exposes the cow to a cascade of subsequent problems. A cow that develops **Milk Fever** is much more likely to develop Mastitis and infertility. A **Retained Placenta** often associated with a disease-prone calf, Mastitis and infertility. And individual metabolic disorders usually signal more costly sub-clinical problems across the whole herd.

However, good nutrition, particularly during the dry period, can prevent many problems.

Critical nutrition issues are:-

1. Body Condition
2. Mineral nutrition
3. Early lactation feeding
4. Grass Tetany control

1. Body Condition Score (BCS)

Body Condition Score control must be the top priority, with 3.0-3.5 the target for drying-off and calving down. A herd average of 3.0 from a mixed bag of individual cows ranging from 2.0-4.0 is no use. Thin dry cows will need supplementation on poor silage. But over-fat cows at calving are prone to **Milk Fever** and low feed intakes after calving leading to **Ketosis**.

2. Mineral nutrition

Precalver Minerals are vital to prime both the cow's and calf's immune systems and to boost the quality of the colostrum. Feed Superchoice Precalver minerals at 100g/cow/day for the last 6-8 weeks before calving i.e. a total of 5kg/cow or a 25kg bag per 5 cows. The 5kg can be fed over 4 weeks for individual cows starting later. Feeding for longer than 8 weeks won't cause problems. Dust the mineral daily on the silage or mix in with any concentrate fed to make sure that all cows receive the minerals. Free-choice Precalver blocks provide much poorer control on intakes. Superchoice Precalver Gold with protected minerals and extra Vitamin E is particularly worthwhile where metabolic problems like **Retained Placentas** were experienced previously. Gain Precalver Activator Nut, including Superchoice Precalver Gold, is a useful 1-2kg/day concentrate/mineral combination option.

Major mineral balance is often ignored while trace mineral nutrition receives excessive focus. **Milk Fever** prevention involves avoiding excessive Calcium (Ca) and Potassium (K) intakes, and supplementing with Magnesium (Mg) during the dry period. Superchoice Precalver minerals provide the Mg without any extra Ca or K. The Ca and K levels in grass silage are usually already on the high side so watch the mineral levels in any supplementary feeds:-

- Grass/grass silage/grass hay - normal Ca, normal P (low P becoming more common)
- Cereals and Cereal by-products - low Ca, high P.
- High Proteins (Soya, Rape) - low Ca, high P.
- Pulps, Molasses - very high Ca and K, very low P.
- Beet - low Ca, low P.

3. Early Lactation Feeding

Both the cow herself and the bugs in her rumen are prone to stress around calving. **Rumen Acidosis** is usually associated with the rapid introduction of high levels of concentrates and a lack of long fibre. Make all diet changes gradually e.g. switching from the dry to lactation diet and from silage to grazed grass. 1-2kg/day of lactation concentrate in the fortnight before calving and the Yea-Sacc live-yeast in Gain dairy nuts will reduce rumen stress associated with concentrate introduction after calving. Stabilising the rumen will help reduce Acidosis and Ketosis. **Sub-Acute Rumen Acidosis (SARA)** is now an issue on highly digestible low-fibre lush spring grass leading to reduced milk yield and fat %. Supplementing with long fibre will

help, as will the high digestible-fibre ingredients in Gain pasture dairy feeds. Underfeeding at pasture must be avoided to keep the BCS drop after calving to a critical max 0.5 units. Cows should be supplemented on grass if they still also eat their daily grass allocation.

4. Grass Tetany

Grass Tetany is low blood Magnesium caused by low levels and availability of Magnesium in pasture. Calcined Magnesite at 60g/hd/day (2oz) supplying 30g Magnesium is the normal prevention. Some cows need more but 6oz Cal Mag will lead to scouring.

All Gain dairy feeds supply protective levels of Calcined Magnesite:-

	Cal Mag
Gain 18%+ Protein winter feeds	60g/4.5kg
Gain low-protein pasture feeds	60g/2.5kg
Gain Pasture Micro	60g/1.5kg

Your Gain Ruminant Business Manager will work with you to design practical feeding programmes that will help minimise Metabolic problems in your dairy herd.