



Beef Action for Profit

Better Returns from Reducing Metabolic Disorders

Boost returns by managing cows to reduce the influence of metabolic disorders, such as increased vet/med costs and reduced performance, on the herd.

The development of many metabolic disorders is largely related to production or management factors, for example when an increased demand for a specific nutrient cannot be met from the feed available.

Prevention is possible by identifying danger periods and animals at risk, and by ensuring diets contain the correct levels of nutrients.

Targets

- Determine animals at risk of having metabolic disorders.
- Identify any deficiencies or toxicities through soil and forage analysis.
- Formulate diets that are well balanced for all essential nutrients.

Management Guidelines

- Manage cow **nutrition**, including **minerals and vitamins**, in the critical last 3 months of pregnancy ensuring that energy and protein requirements are met, and ensuring cows are fit not fat (BCS 2-3) at calving.
- Appreciate that milk fever (**hypocalcaemia**) occurs when cows cannot extract sufficient calcium from their bones and diet to replace the calcium lost through colostrum or milk production.
- Be aware that milk fever chiefly occurs in older cows, as they are less able to mobilise calcium from the skeleton, and generally appears during the first 24 hours after calving.
- Know that grass staggers (**hypomagnesaemia**) is when there is too little magnesium in the bloodstream.
- Recognise that grass staggers generally occurs in spring when cattle are turned out to lush, rapidly growing spring grass that is low in magnesium, but can also occur during periods of stress.
- Understand that ketosis (**acetonaemia**) and fatty liver syndrome (**hepatic lipidosis**) are metabolic disorders associated with a lack of energy in the diet.
- Appreciate that ketosis and fatty liver syndrome can be avoided by maximising dry matter intake of good quality feed during periods of high-energy requirement, eg post-calving, peak milk yield.
- Accept that most metabolic disorders can be prevented by ensuring that feed is nutritionally balanced and palatable; unnecessary diet changes are avoided; stress is minimised; and **body condition** is monitored to prevent over-fat or thin cows.
- Assess why and when metabolic disorders occur, and include effective measures to prevent and treat them in a clear **health plan**.

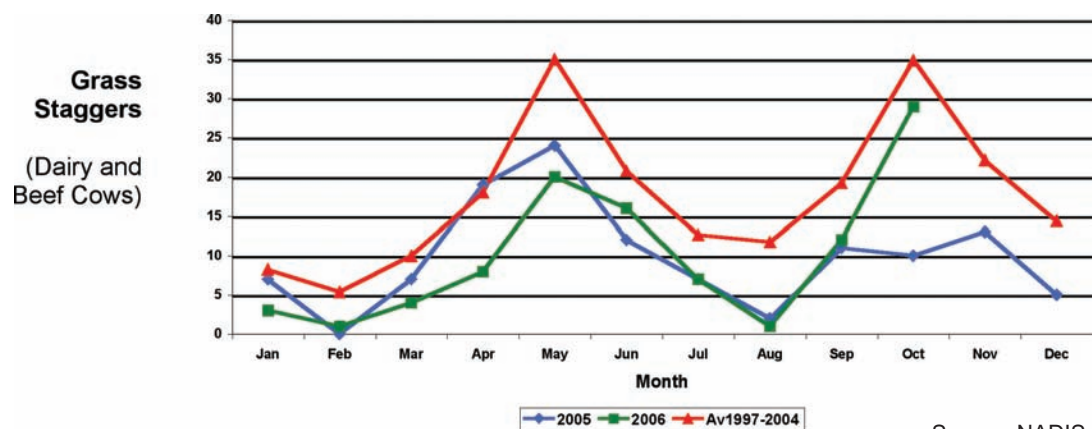
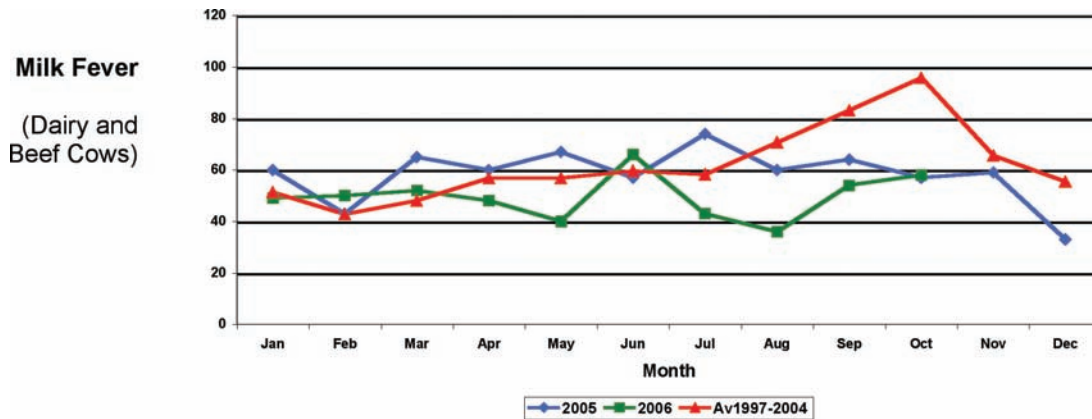
More detailed advice, costings, calculators and further information supporting these guidelines are available free of charge to levy payers in a unique interactive Beef Action for Profit resource at www.eblex.org.uk



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Better Returns from Metabolic Disorders

The Occurrence of Metabolic Disorders



Source: NADIS (www.nadis.org.uk)

Risk Factors

Milk Fever
More common in older cattle
Diet is low in magnesium
Seasonal effects on diets, eg low quality conserved forage or fast-growing grass
Diets that are too high or too low in calcium
Hormones around calving suppresses calcium mobilisation
Depressed feed intake around calving
Stress, eg transport, diet change, social groups
Digestive problems, eg diarrhoea, acidosis, affects calcium absorption

Grass Staggers
More common in older cattle
Diet is low in calcium
Sudden cold spell combined with low plane of nutrition
Fertilised and improved pasture tends to have lower magnesium levels than permanent pasture
Most common around peak lactation, as magnesium is used in milk production
Eating grass or conserved forage that is low in magnesium
Periods of rapid grass growth, as grass will lack magnesium
High level of fertiliser use as high nitrogen levels can interfere with magnesium absorption

Ketosis and Fatty Liver Syndrome
More common in older cattle
Sudden diet changes
More common in housed cattle that are being fed conserved forage, especially low quality silage
Cows being too fat at calving, as feed intake is reduced
Most common around peak lactation
Grass with high water content as dry matter intake is reduced
Can be a symptom of other diseases, such as pneumonia, mastitis, liver fluke, TB
Periods of high energy requirement, eg peak milk yield, calving

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