

Recommended Protocols for monitoring subclinical ketosis

using

The PortaBHB™ milk ketone test

Ketosis in dairy cows occurs as a result of negative energy balance, a condition most common shortly after calving. During this time, milk production is increasing rapidly, while energy intake may not be adequate to sustain the higher production level. When this happens, cows metabolise body fat to meet their energy needs, resulting in increased production of ketones - a condition known as subclinical ketosis. BHB (beta-hydroxybutyrate) is one of the major ketone bodies formed during ketosis: *PortaBHB™* indicates the level of BHB present in milk samples.

The subclinical condition is much more common than clinical ketosis and has been associated with considerable economic loss due to:

- Decrease in milk production.
- Reduced fertility.
- Displaced abomasums
- Metritis

It is estimated that the incidence of subclinical ketosis during the first three weeks of lactation averages 30% in most herds.

Why test for Subclinical ketosis?

- In individual cows, it provides a means of early detection and treatment
- At herd level, producers can make decisions to correct nutritional and other ketosis related issues.

Protocols for individual cow management

Cows should be monitored for BHB at 2 to 14 days in milk when the incidence of subclinical ketosis peaks. In some cases, this period may extend to 21 days.

Recommended Protocol:

- **Test all freshly calved cows once per week during the first 2 weeks of lactation – identifies approximately 95% of subclinical cows.**

Alternative protocols:

- Test fresh cows once during second week of lactation – identifies 70% - 86% subclinical cows.
- Test fresh cows once during first week of lactation – identifies 30% - 56% subclinical cows.
- Test freshly calved older cows (>2 lactations)
- Test fresh cows with body condition scores >4.

Protocol for problem herds:

Herds experiencing an abnormal incidence of DA's, Metritis, weight loss, poor milk production etc:

- Test all freshly calved cows for the first 6 weeks of lactation.