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## Is Sub-Clinical Ketosis (SCK) Really That Important?

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Recently there has been a lot of discussion around the topic of Sub-clinical Ketosis. Over the last couple of years we have improved our ability to find cows with ketosis with the development of the Ketotest used on milk, the Precision extra test used to test blood, and most recently the DHI milk test called KETOSCREEN.

After calving, cows will start producing high levels of milk. Because feed intake can't support the level of milk produced, it is normal for cows to start to mobilize stored body fat reserves. As the liver utilizes this fat, it produces a byproduct which is called a ketone. When too many ketones build up in the blood, a cow develops ketosis. Sub-clinical ketosis is the early stage of ketone build up in the blood. If the levels continue to increase, then the cow will develop clinical ketosis. Clinical ketosis will be observed by the producer in a cow that shows reduced feed intake, a drop in milk production, a strong ketone smell on her breath and sometimes nervous signs.

Ketosis is a production disease in that it will limit the amount of milk produced. Cows with ketosis are 3 times more at risk of getting a displaced abomasum (twisted stomach). They are 2 times more at risk of retained placenta and metritis (uterine infection). Ketosis positive cows are 1.5 times more likely to develop clinical mastitis and are 1.8 times at higher risk of culling in early lactation. As you can see, cows with sub-clinical ketosis have a weakened immune system which increases their risk of infection and leads to loss of production, increased treatment costs and increased chance of culling. SCK cows will produce 1 – 1.5 kg less milk per day than their herd mates. SCK also has a lingering effect on reproduction in that it causes impaired ovarian function which leads to lower conception rate.

An estimated cost to the producer of each case of sub-clinical ketosis is \$50 to \$100. This does not include the cost of the disease consequences that may develop secondary to SCK. The

average incidence of ketosis is 30 to 40%, which is too high. A goal for SCK in a herd is less than 20%. The KETOSCREEN test that is performed with your DHI test will give you a good indication of the level of SCK in your herd. This is a monitoring tool that can be used throughout the year to evaluate how your cows are doing at freshening. If your level of SCK is higher than you would like, weekly testing of all fresh cows with the Ketotest or Precision Extra test will identify SCK cows so that treatment can be started early. Early treatment will reduce the risk of displaced abomasum and other health problems, and minimize production loss.

If SCK is a problem in your herd, investigating your herd for reasons would be the next step in correcting the problem. Vital 90 is a herd assessment that we can perform with you and your nutritionist to identify bottlenecks in dry cow and fresh cow management that could lead to a higher than normal level of Sub-clinical ketosis in your herd. If you are interested in more information on the Vital 90 evaluation, please talk to Phil or myself.

Rick Knill