

DAIRY-UPDATE

VOLUME 6
Issue 2
March 2011

Cattle Conference Highlights

By Richard Vander Deen

It was our privilege to host our 5th Annual Cattle Conference on February 16 & 17 in Watford and St. Marys. It was good to see so many clients and producers come out to listen to the speakers and to enjoy a meal together. What a great opportunity to glean information that can be applied on our farms to make them more profitable. Here is a brief summary of what the speakers had to offer:

HIGH QUALITY FORAGE

Joel Bagg, Forage Specialist, OMAFRA, Lindsay

Getting high tonnage quality forages from our alfalfa fields is critical to decreasing our feed costs in our herds. With the ever increasing land costs we cannot afford to have poor stands. Properly assessing our stands in the field and using high quality proven seed is the best way to get a return on our investment. The cost of seed is relatively small compared to land costs and other costs associated with establishing a stand.

Scouting our alfalfa fields is critical. Look for crowns heaved out of the soil, check for diseased crowns and roots by digging them up and cutting them open. Count the lateral roots. Do the nodules look good? Are the crowns symmetrical? Stem density gives a better estimation of yield than plant density. Remember that the late fall cut decreases yield on first cut for the following season. The best rule of thumb is to leave it alone unless you really need the forage. When considering seed, check out the website goforages.ca for a wealth of information on alfalfa performance trials, as well as grasses that you may want to include. Consider heading date in grasses especially if you intend to make dry hay from first cut.

When is the best time of day to cut for making dry hay? The debate continues over the advantage of photosynthesis when cutting in the afternoon (higher sugars) as opposed to increased respiration losses (sugars

used up while plant goes through initial drying phase to 65% moisture). Joel recommends cutting when you think you have a reasonable chance of making hay without rain. Make hay as fast as you can, using all tools effectively.

Wide swath haylage is needed to achieve "haylage-in-a-day". Making a wide swath decreases losses from respiration as the whole swath wilts quickly from maximum exposure. This will save more soluble carbohydrates, which increases digestible energy. Key points for haylage in a day are:

- leave as wide a swath as possible
- cut as early in the morning as possible
- don't condition
- merge after initial phase of drying is complete

Cornell research has shown an additional 300 pounds of milk per tonne with this technique.

THE FUTURE OF THE DAIRY HERD STARTS WITH A CALF

**Kathleen Shore and Anton Reijmers
Grober Nutrition**

Getting a calf started properly and with good growth as a heifer, results in a more profitable cow in your herd through an increase in production in the first lactation. Grober's testing shows each additional pound of gain per day as a calf results in an extra 1000 lbs. of milk in the first lactation.

How do we get those healthy, growthy calves? It starts right from the beginning with calves receiving high quality colostrum as early as possible after birth. 75% of calf mortality is a result of FPT (Failure of Passive Transfer of immunity). That passive immunity has to protect the calf for the first 14 days of life until the calf's own active immunity can take over. Make sure the calf gets a feeding of colostrum as soon as possible after birth.

A high quality milk replacer can be a good addition to your calf raising program, especially if you are using salable milk. Calves need up to 8-9 litres of milk a day for optimal growth. Remember that small calves have smaller stomachs, and require smaller and more frequent feedings. The milk feeding stage of life is the period of optimal growth. Start a calf starter as soon as they will pay attention to it. Remember to take time to wean the calves – weaning too abruptly can stall out growth. Remember the Big 3 – health, welfare and nutrition.

TRACE MINERALS

**Scott Cieslar, Doctoral Candidate, Guelph
Nutritional and Sales Support, BSC**

We see some common problems on our farms:

- a) Falling conception rates with increases in production.
- b) Culling decisions made for us because of reproduction problems, mastitis, feet & legs.
- c) Loss of production from SCC.

Impressive gains have been made in dairy genetics to increase overall average milk yield, and this has led to

increasing nutrient requirements of these animals. The common strategy has simply been to increase the amount of mineral fed, with little consideration to form of mineral. The advent of organic or chelated trace minerals is advancement in mineral supplementation, but implementation has simply been a repeat of old: increase total intake. It's time to reevaluate mineral supplementation practices – remove the negative impact of inorganic trace minerals and supply the minerals in the form the cow is adapted to consume, in the form of a protein.

Scott explained about optimal intake of trace minerals, that both too much and too little are not good for the cow. The old school of feeding is like eating cake - if one is good, two is better. This is where the law of diminishing returns kicks in. Not only is the level of intake important, so is the form the mineral is available to the cow for absorption. The trick is to get the minerals to the gut without getting tied up and becoming unavailable to her. The structure of chelated trace minerals allows them to get through the rumen and be taken up by the cow because they are protected by a protein.

The use of chelated (proteinated) trace minerals is proven to boost the cow's immune system, improve udder health (teat keratin, reducing incidence of mastitis) and lowering SCC, and strengthening feet. Feeding the optimal level in the proper form gives best value for your dollar.

HOOF HEALTH

Anita Heeg, Alltech

As with most issues we face, changing one practice does not guarantee a successful conclusion. Anita reviewed the pieces of the puzzle for preventing lameness:

- a) Environmental factors - flooring, bedding, stalls, and housing.
- b) Agent factors - bacterial type, nutritional/metabolic events.
- c) Cow factors - conformation, age, DMI.

As producers, we need to count the cost of lameness in our herds. A lame cow will lay down longer, meaning less time at the feed bunk. She will constantly try to be comfortable by shifting weight from leg to leg, a lot less mobile. Her production will drop and you will end up putting her name/number on the cull list. Producers expect to have 25% of their cows exhibit a level of lameness every lactation. Agriculture Canada estimates the cost of lameness at \$75 per cow.

Anita took us through basic hoof anatomy, and explained how weight bearing affects all parts of the cow. Using her hoof samples, she gave us the basics on hoof trimming. Anita encouraged producers to watch cows and deal with lameness issues early. Common hoof problems and treatments were discussed such as tetracycline wraps, cleaning, foot baths, and of course, trimming. Anita also emphasized that chelated trace minerals have a proven record of reducing lameness in herds.

IMPROVING UDDER HEALTH

Dr. Simon J. Timmerman, DVM MS, Iowa

Udder health is influenced by the relationship between environment, dry period management, and nutrition. Dr. Timmermans stated the transition from dry to lactating is often a disaster for the cow. A little more than 50% of bacterial mammary infections actually occur during the dry period. The drying off period and the freshening period have by far the greatest amount of clinical infections. Coliforms and environmental Streptococci are the main challenges. Environmental pathogens have filled in where contagious bacteria have been controlled. We need to remember that the cow's immune system is weakened before and after calving. Dr. Timmermans suggests that these pathogens are opportunistic, taking advantage of the cow's depressed immune system. Using chelates helps a cow during this challenging period.

BCS (Body Condition Score) loss over .67 is a recipe for trouble. We know that a fat cow's DMI is lower than it should be and can result in metabolic problems. These cows start to burn off weight and don't have enough DMI, which results in even greater calorie loss from the animal. The immune system takes a lot of energy to run and with all the above problems, the immune system from the fat cow will be under even greater stress.

Prevention starts with healthy, growing calves, and making sure we don't turn the heifer ration into a finishing ration. Dr. Timmermans ended his presentation by reiterating the benefits of feeding chelated trace minerals for immune system and udder health.

DAIRY UPDATE is published in the interest of helping dairy producers become more profitable. We welcome your comments. Also available on-line at www.bsccanimalnutrition.com

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