



Professional Nutrition & Management Services

# DAIRY-UPDATE

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## Where is the milk?

By Patrice Vincent

*Patrice is a dairy specialist with Belisle Solution Nutrition and covers the Eastern Ontario and the Quebec border region. He will be visiting our area on the next Dairy Information Day in February.*

For most of us, this past year has been a frustrating one. Very poor weather conditions prevailed much of the summer with far too much rain and not nearly enough sunshine. Nevertheless, we were still very pleased because we were able to make the first cut on time and expected a decent year after all. Four weeks later, after a good fermentation (at least, that's what we thought), we confidently started feeding that high quality silage to our cows unfortunately resulting in ... no milk! Where is it? We did everything right. However, Mother Nature can tell us a few things.

### Where was the sun?

Cows mainly get their energy from volatile fatty acids resulting from the fermentation in the rumen of fibre, starch and sugars. For plants, their main source of energy is the sun. At least in my area, the sun was notable by its absence last summer. Plants build up sugars throughout the day in the presence of light. Lots of light means lots of sugars. Plants grow differently in cloudy conditions. Lab results tell us that plants will build less hemicellulose than normal when it's cloudy, but we are not sure exactly why this happens. Don't forget that rumen bugs digest cell walls from the inside towards the outside. Hemicellulose is highly digestible because its sugars are not as tightly bonded together as cellulose or lignin. Cellulose is harder to digest because its sugars are very tightly attached to each other, while lignin is not digestible at all in an anaerobic environment (i.e. in the rumen). Overall, that makes our forage less digestible than we might expect, even if

we cut at the right maturity. Cows eat more forage when NDF levels are low, but milk production suffers significantly because they are consuming more of the less digestible cellulose and non-digestible lignin. Don't be surprised if you feel you are cleaning your cows more often this winter -increased manure volume is quite common this year.

### Silage fermentation

The lack of sunshine lowered the sugar concentration in plants. This is not good news for us when we want to make silage. Sugars are the number one food source for the bacteria responsible for silage fermentation. Low sugar levels mean clostridial fermentation leading to butyric acid production which we have experienced a lot of this year. Remember, cows can tolerate up to 50 grams of butyric acid per day.

The other problem we encountered this year was incomplete fermentation probably due to a low population of bacteria responsible for silage fermentation. When we bring forage into a silo or bunker, we introduce a lot of those bacteria. Unfortunately, heavy rains like we had this summer flush away those bacteria and we end up with much less bacteria overall. Higher pH, high sugar levels and low lactic acid levels at proper moisture for silage can sometimes be explained by a low population of bacteria. Watch out for secondary fermentation at feed out because conditions are in place for yeasts and molds to spoil our silage.

### What's next?

First of all, let me say that things could be worse. We have normal lignin level in our forages this year. Just imagine silage with low levels of hemicellulose and sugars and high levels of cellulose and lignin. We did everything right this year but we still end up with only average forage quality because of the growing conditions. Remember that we cut at the right maturity. Things are much, much worse if silages are too mature. Down my way, we took this approach. Since our supposedly excellent silage turned out to be only of average quality, we took away any roughage (dry hay or straw) and replaced it with silage. Because the silage is not as digestible as it was supposed to be, it doesn't go through the cow as fast as expected. Then, if it isn't too expensive, we can replace some fibre from forage with beet or citrus pulp, soy hulls, distillers, whole cottonseed or any source of soluble fibre. Additives that enhance fibre fermentation can be very good options too. We didn't opt for more grains or protein because cows are supposed to be ruminants. They have more than enough grain as it is. Unfortunately, anything we do this year will just make us spend more money to maintain the same level of production as last year.

## What Wages Do You Want?

By Colin Pool

With all the unrest in the auto sector and financial world today, we hear a tone of screaming and see a lot of pointing fingers about big wages and wasteful spending. If you're an auto worker, your perspective will be quite different than that of a self made businessman or even a primary producer of the food we enjoy today. What should we do? In my mind, everybody will someday be held accountable for his or hers perspective on life and how they handle the hand that they're dealt.

Accountability continues to be a catchy buzzword - we hear how politicians need to be accountable to the voters and how employers need to be accountable to employees and vice versa. This led me to wonder as livestock producers how accountable we are. Do we try to turn over the most profit we can in our farms today? Are we leaving too many dollars on the table? Is there an area in which we need to be more accountable? Is there a way to improve our own wages? I believe there is.

Forage quality and management have always been my focal points. Recently, I heard a couple presentations on calf rearing, one by Dr. Ken Leslie and the other by Dr. Rob Bell, and the thing that struck me is how much producers could leave on the table every time they calve out a cow. We need to take a page out of the beef manual and put it to practice in our dairy herds today.

On average, we lose a staggering 8% of calves by weaning, only a slight improvement over years ago, when we were losing 10%. What this means for dairy operations is that for every 100 cows calved out, we would be assured that 4 heifer calves are going to die. Dr. Leslie mentioned the beef business and how they were forced to pay attention to calf mortality because they don't have a milk check to back their poor management or bad luck. Dead calves in their world are a 100% loss.

Beef producers were forced to pay attention to details and this has paid off in **reduced calf mortality**. These details when applied into the dairy world mean great things as well, a better paycheck at the very least.

Both gentlemen mentioned the best cow comfort and nutrition plan for the expectant moms. That's fairly easy.

Also mentioned was supplemental selenium (above what is supplied in the dam's ration) to the calf at birth, as well as Vitamin E. Some will give shots to the dam pre-calving as a precaution. This job with proper restraint isn't that bad either.

The main idea stressed was the colostrum intake 1-4 hours after birth and how important it was to the calf. We all know this and we believe it...BUT...

do we do it? They recommended 4 litres in the first 4 hrs and an additional 2L in the next 4 hours. "My calves will not take in 4 liters of colostrum" is the comment I heard immediately after this presentation.

The problem I see is that bottle or tube bags only come in 2 L sizes so this seems to be the determining factor. You folks work way too hard to lose these calves and I encourage you to look at your calving procedure and see if a change could be made. Calves that are fed enough early enough are shown to give more milk as two-year olds. What a payback!

I will close with this interesting statistic: Dr. Bell has put numbers to heifer rearing including feed, labour, quota costs and depreciation and he calculates that you need almost 24,000 kg of milk to pay for her. This figure can be manipulated for each farm, but think about the big picture and how it will affect your home operation. Is there something you can be doing to improve the accountability of your farm?

You can and you do deserve a better wage. You are your own boss, so determine how much more you should pay yourself. Here is the potential for added income, whether it is heifer sales, veal calves or simply raising better herd replacements.

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## DAIRY CUSTOMER INFORMATION DAY

*February 26<sup>th</sup>, 2009*

*Watford United Church*

*10:00 am until 3:00 pm, lunch provided*

### Speakers:

*Patrice Vincent – Belisle*

*Dr. Rob Bell – Pfizer*

*Nathalie Gentesse – Belisle*

*Bruce Woodacre – Alltech*

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**DAIRY UPDATE** is published in the interest of helping dairy producers become more profitable. We welcome your comments.

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