

## Thinking Over Strategies

Hard to believe that only a month ago it was hot and humid. Plenty of harvesting and field work going on now that the rain has stopped-but it feels like a long time since we talked. There is so much to go over! Let's get started.


### Feed or Sell?

I don't have to tell you that the price of beans are low this year. And yet, even though soybean meal has come down some, the cost per pound of protein is still pretty high in comparison. Feeding your beans instead of selling them seems like a viable alternative. Let's take a closer look at that.

For starters, you can feed raw beans. You are limited to about 4 pounds per head per day as the beans contain an anti-protein enzyme that inhibits the amino acid trypsin. There is a substantial amount of oil in the beans as well, so you may need to limit the raw beans even further-especially if you feed a lot of corn silage (too much oil) or a lot of alfalfa (too much degradable protein). The best diet for raw beans is 50-50 alfalfa-corn silage. Also, if you plan to feed raw beans, ditch any urea source-the two together create too much ammonia and can be bad for breeding and early embryo viability.

Heating or roasting the raw beans and coarsely rolling them breaks the trypsin inhibitor bond and slows the release of the fat. After roasted, you can feed up to 8 pounds of roasted beans-and still feed some urea if you'd like.

Most mills have a bean exchange program in which you bring in your raw beans and exchange them for roasted. Each mill has their own take on this-but most are \$35-45 ton for roasting and 11-12% shrink.

For example: \$35 per ton for  roasting and 11% shrink. The additional cost per bushel, if beans are at \$7.25 per bushel is \$1.847. Add those together for a cost of \$9.097 per bushel or \$303.23 per ton.

Soybean meal to date is \$335.00 per ton on average. On the farm roasting is another available option, for those that have storage. The price is usually slightly less than the exchange programs-but you are providing the storage.

The verdict so far: if beans continue to drop, and meal stays where it is at-you may want to look at feeding them.

### New Clues from Milk Composition

On farms, to fine tune a ration, discover a bottleneck or trouble shoot a problem, we have a lot of tools. Milk composition metrics or fatty acid testing is the latest tool in the box.

## Winter is coming...

Early winter can raise some issues: metabolism changes, unfermented corn silage and shorter days. Here are some oldies, but goodies to help prepare for the season:

### 1. Worm everything

This summer-as hot and humid as it was did an excellent job of raising parasites (flies, anyone?). Worm after the ground freezes hard.

### 2. Get out the calf jackets

Cows may love cooler temperatures, but the babies don't do well in weather under 40 degrees. When the weather is consistently under 25 degrees, it's time to pull them out. The jackets will warm them up by 40%.

### 3. Look out for yeast and molds

Wet weather at harvest is almost always a recipe for yeasts and molds. Most are brought in from harvest and grow in the bunker, silo or bag. They need very little air to grow and produce toxins. Feed a binder and be on the look out.

### 4. Adjust the lighting

Extending the photo light periods can improve appetites and metabolism-helping production.

### 5. Go over your inventories

Figure out how much you can feed and when is best to feed one feed over another.

## Odds & Ends.....

Prices heard this week:

Corn: \$ per bu. \$2.89-3.10

Soybeans: \$7.58-7.80 per bu.

150 RFV Hay: Large squares are worth approx. 1.13 per point of RFV.

Springers: \$850-950 med grade

Cull cows: \$0.40-0.52 per pound

Bull calves: \$35-95

### Connections:

Call us at 1-800-700-9334 or email us at

mctech@centurytel.net to get connected

\* Wanted: Used feeder wagon, preferably steel

\* Wanted: 4-6 young cows for tiestall barn

\* Wanted: looking for good heifers

\* For sale: milking equipment-call for list

\* For sale: 3516 Meyers chopper with 16ft running gear..

\* For sale: 256 New Holland rubber teeth hay rake

\* For sale: 1540 Gehl twin spinners blower

\* For sale: 300 John Deere shaker pan blower

\* For sale: 18 foot Val-metal silo unloader

\* For sale: 469 silage special round baler

\* For sale: 590 big square baler

\* For sale: John Deere 7000 corn planter with 100 monitor

If you have something to sell or are looking for something-don't hesitate to call or email.

There is no charge for the posting.



A nickel ain't worth a dime anymore.-Yogi Berra

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Fatty acid testing focuses on the end products that make up the fat test in milk.

The testing identifies 4 fatty acids that are produced: de novo fats, mixed fatty acids, preformed fatty acids and double-bonded fatty acids. **Each fatty acid is affected by different parts of the diet and management strategies. When a fatty acid is higher or lower than expected, then it points us to an area to focus on.**

For example, let's look at de novo fatty acids. De novo fatty acids are synthesized by the mammary gland using the end products of fermentation-butyrate and acetate. If the de novos are lower than expected we look for things that interfere with rumen fermentation such as poor fiber digestibility, molds or yeasts, or too much starch. In other words, it sends us in a direction to look into.

Using the whole profile of fatty acids, along with other milk composition factors such as MUNs and lactose helps us further pinpoint issues.

Using the testing on farms, we've been able to uncover some issues. In one case, the TMR mixer needed attention. In another, the amino acid profile in his feeds was not standard and needed adjustments. Another, a mold/yeast issue was discovered and the binders adjusted.

The sampling is easy to do, if you'd like to give it a try. You need 4 bulk tank samples-4 different milkings drawn out much the same as the milk hauler takes the sample for the creamery.

The samples are then shipped to the

DHIA lab in Stearns county, MN for a cost of \$30.00 plus shipping. As a cost-effective, trouble-shooting tool, milk composition metrics is the next step.

## MUNs all over the place

One of those milk composition metrics you're already familiar with are MUNs. MUNs are the measure of the nitrogen in the milk. Typical MUN run 10-14 mg/l for herds that are top-dressed and 8-12 mg/l for TMR fed herds.

These numbers remain pretty constant, but every once in a while you'll see those numbers wildly fluctuate-even if you really haven't changed feed. In fact, you've checked the feed and the protein levels haven't changed-so what gives? Here are some reasons other than protein that can cause MUNs to swing:

**1. The cows have been out of feed for more than an hour.**

When cows have no access to feed, MUNs will decrease rapidly, in as little as an hour. In fact, bulk tank MUN can decrease from 13 down to 9, if cows are without feed for 5 hours. Fat test will decrease at the same time by 0.5% (Barbano, 2016). Never out of feed? What about nighttime? A cow eats a large portion of her diet at night-even in the winter. Make sure she has enough.

**2. You're feeding unfermented silage or baleage.**

Silages and baleages release nitrogen through the fermentation process. The available nitrogen in an unfermented feed

## THE BUZZ...

Here are some of the latest things going on out there and our personal opinions of them.

### New benchmarks:

Profit margins are so thin right now that it pays to think of your herd in new ways. We used to measure herds by how much they milked per cow or how much they averaged a lactation. While this is still a good measurement, maybe it's time we focused on a few new benchmarks-money per stall, profit per cow and pounds of solids per cow. The testing outfits provide a dollar value per cow-from there it isn't hard to find your average and set some goals. Profit per cow can be easily figured after the expenses are taken out. These numbers give you a good basis to make culling and breeding decisions, grouping decisions and other management issues.

Pounds of solids per cow lets us set some goals. For example: a 25,000 pound herd with a 4.0% fat test and a 3.2% protein test is averaging 5.9 pounds of solids per head per day. Management decisions can be made from there to reach these goals as the processors pay for solids and not strictly on milk.

### Corn crop so far:

The quality of the corn silage this year was determined by the stage at which the corn was at when the dry spell hit. In some areas, it came during kernel fill, and in those areas-kernels are shallow and yields are low. In others northern leaf blight was a problem again this year, and the silage had to be taken earlier than ideal. Others, have excellent corn silage. Really hit and miss this year. Again.

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will vary daily as the feed is in all different stages of fermentation. MUNs will rise or lower with the daily fermentation change.

### 3. Your mixer needs attention.

If your mixer is wearing out, you may be delivering a partially mixed diet-different every day to the cows. MUNs will reflect these constant diet changes.

### 4. Feed delivery is inconsistent.

Providing feeds at a different time every day, poor TMR mixing orders, slug feeding and sorting can all lead to fluctuating MUNs.

### 5. The starch level is varying in the corn silage/earlage/high moisture corn.

MUN levels aren't all about too much or too little soluble protein. They are about how the rumen bacteria are utilizing the ammonia to provide microbial protein. To do this, there must be adequate fast pool energy in the form of starches or sugars. Fluctuating MUNs may mean that the starch levels are inconsistent.

MUNs are a good indication of rumen stability. If you evaluate MUNs along with other milk composition metrics, you can discover a lot about what is going on with a herd.

### What is the Best Corn for Silage?

To try and answer that very question, this year we tried a fun experiment.

We tested fresh corn varieties using the IFM testing-the fermentation test that measures energy more exactly-to find out which varieties actually provided more energy.

The samples were varieties of conventional, BMR and dual-purpose corn.

Granted, the experiment is pretty unscientific. You can argue that not enough sampling was done to show different types of climates, soil types and rainfall. Still, here is what we learned.

### The short study taught us more about strategy than about which one was best.

The BMR samples tested high in energy from stalk digestibility, but low in both starch and starch availability. Conventional corn samples tested very high in starch content but low in both the availability of that starch and stalk digestibility. The surprise was that in all the dual-purpose corn samples the stalk digestibility was slightly better than conventional, better than the BMR for starch level and digestibility. Overall it had the highest energy right now.

So strategy. The BMR and conventional corns will ferment and get better-in fact, the BMR will eventually surpass the dual-purpose corn. Dual-purpose appears to have the best starch availability now as a fresh feed. If you need to feed fresh corn silage, it appears planting dual purpose to feed right away is a good strategy. Waiting for BMR to ferment fully and using it in the winter-when diets are more consistent-may be another strategy to make the most out of this feed. Last, since conventional ferments slowly, best to feed in the summer to help maintain fat test, as the starch from the other types of corn silage will be very fast at that time.

Hopefully, harvest is going well for you. See you soon.