

## Practical solutions for this Fall

This fall so far has been a real challenge. Harvest is underway but is constantly interrupted by the rain. Crop prices aren't the best anyway, to say the least. I don't need to tell you this, you're probably frustrated enough. You're not alone. The whole industry is frustrated.

But hey, we can't change the prices or control the rain. Instead, what we can do is go over some practical solutions to problems that a lot of farmers are facing this fall. Let's get started.

### Utilizing Dry Corn Silage

Between northern leaf blight and rain fall, the corn silage was tough to harvest this year-if you missed the narrow window the weather provided.

Dry corn silage can be a challenge, but it is not the end of the world-we just need to make adjustments.

Dry corn silage is defined as less than 62% moisture in a bag or a bunk and less than 50% moisture in a silo. It feeds more like mature grass and shell corn than actual corn silage and takes longer to ferment and soften those kernels-sometimes up to 6 months or better. Starch and stalk digestibility are lower. The biggest challenge, however, is that the silage doesn't pack well in either bag or silo, leaving air pockets in which mold or wild yeast can develop.

So knowing this, we can adjust:

#### 1. Test for digestibility.

After initial fermentation, find out where stalk and starch digestibility really is and make those adjustments to the ration. Test every two months to check on how the crop is progressing in digestibility.



#### 2. Add a fast acting starch or sugar source.

If starch digestion is slow, balance it out with something like fine ground corn or high sugar molasses.

#### 3. Add a digestible fiber source.

Increasing fiber digestibility can improve milk production. Balance that dry corn silage using small grain silage such as rye silage, or commodities such as beet pulp binder.

#### 4. Use yeast.

Yeast can help feed the rumen microbes, stabilize the rumen and improve fiber digestibility.

#### 5. Add a mycotoxin binder.

Dry corn silage almost always has some mold in it.

#### 6. Check into enzymes.

Some enzymes such as amylase are proven to help starch digestion and can help the starch become more available to the rumen microbes. Other enzymes have little to no research behind them and can be pretty expensive.

## Time for another checklist...

Before you know it, winter will be here. Are you ready? Me neither. Here is a checklist that can help you prepare:

#### 1. Worm the cows and young stock.

This year, the rainy weather produced a lot of parasites. When the ground freezes hard, make sure you worm them.

#### 2. Adjust the lighting.

Appetite and metabolism improves when you lengthen the cow's day, resulting in improved production.

#### 3. Get your young stock and dry cow diets adjusted.

Proper adjustments can head off ketosis, RP's and udder edema-common problems in the winter.

#### 4. Adjust your teat dip.

Teat dips with more conditioners will help prevent chapping in the winter.

#### 5. Check your stored feeds for molds and mycotoxins.

Molds need very little oxygen to grow and produce toxins. Most can grow in silos, bunkers or bags. Check to make sure your feed doesn't have this growth occurring.

#### 6. Time to add biotin.

Biotin helps prevent heel cracks that commonly occur in the winter.



## Odds & Ends.....

Prices heard this week:

Corn: \$2.73-3.01 per bu.

Soybeans: \$8.82-8.86 per bu.

150 RFV Hay: Large squares are worth approx. .93 per point of RFV.

Springers: \$1150-1650 med grade

Cull cows: \$0.50-0.62 per pound

Bull calves: \$80-135

Connections:

Call us at 1-800-700-9334 or email us at [mctech@centurytel.net](mailto:mctech@centurytel.net) to get connected

\* For sale: Cows and heifers MN area

\* For sale: permeate pump, like new.

\* For sale: 2 H&S Chopper boxes

\* For sale: rye straw. rotary combined

\* For sale: hay: large squares, baleage, rounds-call us for a list.

\* For sale: Muscovy ducks

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.



Always do your best. What you plant now, you will harvest later.-Og Mandino

Happy Harvest!

## Monson Consulting

"Common Sense Innovations"

Jim & Carmen Monson  
Ruminant Nutritionists

1-800-700-9334

cell: 715-768-0046 fax: 715-485-3266

[mctech@centurytel.net](mailto:mctech@centurytel.net)

## Shifting MUNs

MUN values or milk urea nitrogen are a fraction of milk protein that represents about 0.19 percentage points of the normal 3.2% total milk protein. We use MUNs to evaluate protein feeding and starch digestion. Typical MUNs run 8-12 on a TMR fed herd and 10-14 on a topdress herd. If your herd runs high or low MUNs we start evaluating and adjusting the diet to find out why that is happening. The problem is this time of year the MUNs can look a little crazy-high or low one day and the opposite the next. Here are some reasons for these swinging around:

### 1. A sudden shift to new corn silage.

New corn silage, no matter how it is processed, still takes time for the starch to be available-and this fermentation is not linear. This always-adjusting starch availability causes a wide variation on MUNs on a daily basis.

### 2. Feeding dry or new HM corn

High moisture corn ferments and becomes more available on a continual basis. In other words, good high moisture corn is like rocket fuel by June, after it has had a lot of time to sit and break down. In the fall the shift to new corn is pretty abrupt and the rumen microbes scramble to adjust. This causes those changing MUNs.

### 3. Feeding heat-damaged haylage

Dry haylage, especially 4th crop, lacks in carbohydrates and usually contains heat damaged protein. The damaged protein is not consistent throughout the crop-some spots are better, others are not. These variabilities cause the MUNs to fluctuate.

### 4. Clostridial fermentation in the feeds

Clostridial fermentation usually occurs when the feed was put in to wet or rained on.

The result causes amines and butyric acid to develop. The amines are protein particles that have become indigestible-so the amount of amines in one part of the bunk may be more than another area-causing the MUNs to look a little crazy. The butyric acid is caustic and interferes with the rumen microbes-a double whammy.

### 5. Mold, wild yeast or mycotoxins

Any rumen instability can cause MUNs to look a little crazy. Molds, yeasts and/or mycotoxins can cause big shifts in MUNs.

So there is a running theme here...if your MUNs are all over the place or consistently low or high, it is time for a little investigation. Do you have any of these factors going on? Call or email u and we'll send you a MUN checklist to help you discover the reason.

### Beans: to feed or not to feed

Cheap soybeans typically aren't a good thing-even if you are on the buying end. When corn and beans are low-historically, so is milk. As we speak, bean harvest is underway and bushel weights in this general area seem decent. The question this year is, should you sell your beans or feed them?

For years, guys have not tried to feed raw beans. Raw beans got a bad rap for years because they are not a good balance with high quality alfalfa. Beans contains high amount of degradable protein (80% of the crude protein) which makes them a good candidate to balance with high corn silage diets. There are limits to this highly degradable feed, though, just like when you feed urea-another highly degradable source of protein. Beans also have a trypsin inhibitor (anti-protein enzyme) and if you feed too much, that enzyme can interfere with protein digestion.



## THE BUZZ...

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

### Corn silage starch levels:

Samples have been coming back pretty steady now and the results are clear: the starch levels are much higher-even compared to last year.

Starch levels, this year, are at 40% starch or higher-which means there is at least 50% corn in the sample or better.

Usually, this is a good thing. The more corn in the silage, the less energy we need to supplement. And that is still true.

A note of caution, however.

Right now, even if the silage is processed, the starch from the corn hasn't broke down enough to be very available-it's about 70-75% starch digestibility (IVSD-7). The caution comes when this corn silage becomes like rocket fuel in the next 6 months. Gear up with buffers, etc. for the rumen bacteria to handle the heavy loads. Also, make sure there is enough effective fiber in the diet or acidosis may become an issue.

Dry cow diets shouldn't run over 23% starch in the winter and 15% in the summer. That is going to be made more difficult to do for folks relying on mainly corn silage to feed the dry cows. Just think of it, if you feed 30 pounds of corn silage to a dry cow she'll be getting a full 15 pounds of corn. That's a lot of corn for a dry cow and may end in ketosis trouble at freshening.

Mainly be aware of this and have a plan set up with your nutritionist on handling the crop this year.

If you want to weigh in on this, please email us at [mctech@centurytel.net](mailto:mctech@centurytel.net).

In most diets, you can feed up to 5 pounds of raw beans-to limit that enzyme. They need to be balanced for degradable protein, so don't feed along with urea or high amounts of alfalfa in the diet.

You'll know if you are feeding too much degradable protein if the MUNs are high. Also, in most diets, the beans do not need processing and can be fed whole. Make sure that you make a slow transition into feeding beans-to avoid seeing them in the manure. It takes the rumen microbes 7-14 days to adjust to the feed change.

Back to the question-when is it feasible to feed them? When the spread between beans and meal is \$50 per ton or more-it's time to consider feeding the beans to mature cows.

### Dealing with Dry Moisture Corn

Unlike the fields, the corn seemed to dry down pretty quickly. Once the corn black layered, it steadily moved down in moisture-sometimes over point a day. This left a lot of corn going into silos at 22% or less moisture. At 22% or below, the corn doesn't ferment and above 19%, it won't keep either. Feeding a mold binder and watching for wild yeast development will be important this year, especially for that 19-22% corn that is put into a cement silo or a bag. If the corn is drier than 19%, chances are that it is dry enough to keep.

The more common problem is that the corn starch will pass through the cow undigested.

Unlike beans, the drier the corn is, the more it needs to be processed for the

cows to utilize the starch efficiently. The kernels are hard enough that just cracking it doesn't help.

Here are the differences in energy values compared to HM corn with processing: (Mcal per pound of dry matter)

HMC: (26% moisture or above)	0.93
Cracked (2200 micron)	0.84
Ground (1500 micron)	0.89
Finely ground (<800 micron)	0.96
(Univ. of Illinois)	

To process so that the energy value is about the same as high moisture corn, the corn should be about 1000 microns. If you're not sure-send a sample in to check the microns out. This will give you a better idea of where that energy value is actually in the corn and if extra energy needs to be supplemented.

If the microns are high, and energy is limited, you can:

1. Add finely ground corn.

This can boost the overall digestion rate of the starch.

2. Use a sugar source.

Sugar is a fast-acting carbohydrate source.

3. Add a fat or oil source.

Fats are digested much differently than carbs and may be a good source of energy to balance out a slowly digested starch.

Every year, with the crop coming in, we need to make adjustments. This year is no exception. Thankfully, yields are up and we just have these few things to deal with.

Hope your harvest is going well.