

## 5 Rules to feed Dry Cows

Hey, I think we should have a good talk on dry cows. After all, according to statistics, if a cow freshens in with any kind of metabolic issue-clinical or subclinical, it can reduce milk up to 20 pounds per day in the first 14 days of lactation-reducing her peak milk and overall production for her entire lactation. And having a poorer start doesn't stop there: metabolic issues can affect colostrum-setting calves up for problems, it can affect egg follicle strength-causing reproductive problems, and can lower immunity-increasing the risk for mastitis during the lactation.

Preventing the metabolic problems is really, really important for the cow and for your wallet. The problem is, it can be kind of tricky: One size does not fit all on every farm. And so many opinions out there! High or low energy, high or low calcium, acidified or partially acidified or Goldilocks-which ones actually work?

Diets formulated for dry cows are based on what kind of environment the dry cow is in and what on-farm forages there are to work with. It's not always easy to make it all fit, in fact, dry cow nutrition can only make up for so much.

Dry cows that are overcrowded or muddy or stressed are less likely to eat enough feed to maintain the nutrients they need. If the dry cow is moved to the calving pen in the critical 3 to 10 days prior to calving, she will drop dramatically in intake and set herself up for metabolic problems. There is no diet that can solve those issues.

There are, however, some basic rules to feed a dry cow. Unfortunately, in the last few years, I've seen a lot of folks breaking the rules-and paying the price. So let's talk about the rules first before we talk about the fixes.



### Rule #1: Don't feed a lot of corn.

Years ago, we knew this. If you fed too much grain to a cow during her dry period, you were asking for ketosis. So most farms don't do this intentionally, but what has changed for us is our corn silage quality. It has us breaking this rule.

It's not unheard of now that the corn silage will be 40-50% corn-great for the lactating cows, but a real issue for dry cows. Just think of it: **if you feed 40 pounds of corn silage to a dry cow, she could be getting as much as 20 pounds of corn!** Too much starch will increase insulin resistance and bring on ketosis. for a dry cow.

### Dry Cow statistics...

Some are a bit of an eye-opener.

#### 90 square feet

Pack area a dry cows needs for comfort.

#### 1.46 times

The risk of ketosis in Jerseys vs. Holsteins

#### >2.7 pounds

The amount of fat produced by a cow in late lactation shows a decreased chance of ketosis.

#### 30 inches

Bunk space needed for dry cows for optimum intakes.

#### 14%

Lowered conception rate of cows that had retained placentas.

#### 15%

Amount of the herd over 200,000 SCC at freshening indicate problems with dry cow management.

#### 1.4

Fat to protein ratio that can indicate ketosis in the first part of lactation.

#### \$383

Estimated cost of milk production income in the first thirty days, following a metabolic problem.

## Odds & Ends.....

Prices heard this week:

Corn: \$ per bu. \$2.87-3.18

Soybeans: \$7.70-7.86 per bu.

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

Springers: \$750-800 med grade

Cull cows: \$0.32-0.44 per pound

Bull calves: \$20-80

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\*Wanted: straw or corn stalks

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There is no charge for the posting.



Sometimes faith will make you look stupid, until it starts to rain.

Noah

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Limiting the starch levels to 12-16% in the summer and 20-22% in the winter is plenty for a dry cow.

### Rule #2: Bulk up the diet.

Bulk, as in bulky hay or straw, help stretch the rumen and set the cow up to take in good intakes during her lactation. Also, we use hay or straw to dilute out nutrients like starch or potassium for a overall healthier diet. Most farmers know this and try to feed some straw or hay in the dry cow diet.

**The problem comes in when the cows are sorting out the straw or hay in a TMR or not eating the bale in the feeder like they should.** Straw has to be chopped fairly fine-2 inches or less-to prevent sorting and to provide the fiber mat in the rumen. Hay can be chopped a little longer.

What about hay fed separately in a feeder? It works, but you can't depend that they will eat it like they should and have the rest of the diet balanced with some extra fiber in it.

### Rule #3: Feed enough protein.

Protein is essential to build a healthy calf and to provide good quality colostrum. The cow will still do this, even if she isn't receiving enough protein in her diet-that is why it gets overlooked. What will happen is that the cow will pull from her muscle reserves, causing her to become weak after calving. **This is especially so with first calf heifers as they are growing, they need even more protein. If they don't get enough, they can become alley cats or stall fighters.**

What is enough? A minimum of 1000 grams of metabolizable protein for mature cows and 1200-1400 for springers.

### Rule #4: Dilute potassium and feed magnesium.

Potassium is the culprit in most cases of hypocalcemia and full blown milk fever.

Too much potassium in relation to magnesium will turn off the "magnesium regulator" and affect the absorption of vitamin D and how calcium is released from the cow's system for her to use for her requirements.

**A recent culprit for these issues is grass hay.** The potassium doesn't get very high, but in relation to the available magnesium and calcium, which are typically low in grass hay-it can be big problem.

Adjust the dry cow diet to dilute the potassium culprit (if you can) and feed extra magnesium at 0.40%-0.45% of the total diet.

### Rule #5: Feed Vitamin E and selenium.

Selenium and vitamin E help prevent many types of infections and boost the immune system.

**Retained placentas can be a sign of poor immunity and feeding the proper levels of selenium and vitamin E in the dry period can help prevent problems.**

Selenium yeast ("organic" selenium) should be fed at the current legal level of 0.3ppm and Vitamin E from 1000-2000 IU per cow.

Every dry cow diet starts with these rules in mind-it's when feed inventories, labor or other stumbling blocks specific to the farm occur that we have to start using the fixes.

Here are some of the examples of fixes:

## THE BUZZ...

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

### Enogen seed corn:

This new seed corn sounds interesting—at least, the few trials look promising. Enogen seed corn from Sygenta is supposed to have readily digestible starch, made available by an amylase enzyme genetically implanted into the corn.

On the surface, it sounds like it should work great. Just a few concerns from a natural skeptic.

First, it's not actually amylase—an enzyme that breaks down starch in corn. It is an "alpha-amylase" trait put together from natural amylase sources and filling in the gaps in the DNA with a sea plant based form of amylase. It should work the same...

The other issue is that since it is a new GMO, it is not specifically cleared for any other use but in livestock, so the corn from the Enogen plants must be kept separate from other corn, if you were to sell it.

The company claims no yield loss, but it seems that all specialty types of corn have issues with adverse weather—and I'd like to know what that might be.

All concerns aside, I think it may work well for starch availability for cows. Amylase does work to help break down starch. I would just like to hear more success stories and see data on some tough years. You know?

Remember to check us out on  
[www.monsonconsulting.net](http://www.monsonconsulting.net). !

### Transition or prefresh groups:

One group dry cow programs work—if the feeds and environment are similar to what they will be when they are lactating. If there is a difference, you probably need a transition ration. For example: the dry cows are housed outside and fed a diet consisting of round baled hay and corn silage. For lactating, they are moved to a free stall and given a TMR. In a case like that, you need a two group dry cow diet to bridge the gap between the two diets.

Transition diets also try and fix a less-than-perfect far off dry cow diet, to set the cows up for the best possible start. Most farms use some sort of transition diet.

### Goldilocks diet:

I love the Goldilocks diet. It works and follows all the rules.

The Goldilocks diet was developed by the University of Illinois (Drackley, 2013) and focuses on controlled energy and high bulk all the way until freshening.

The reason it is in the fix-it group is because of its use of a lot of chopped straw. The straw is used to fix the effects of a high corn silage inclusion rate. Many farms need to use more than the recommended amount of corn silage for dry cows due to inventories.

To dilute the effects of too much corn and add enough bulk these diets use a minimum of 4-6 pounds of finely chopped straw.

### Acidified Diets:

Acidified diets feed anionic salts to acidify the dry cow diet to modify the electrical charge of the blood. Modifying the electrical charge to produce a negative DCAD balance releases calcium from the

cows system and make it available for her to utilize to meet the extra calcium demand her body needs after freshening.

We've been using anionic salts and these acidified diets for years, with varying success. They "fix" high potassium problems that can't be diluted out.

The issue with acidified diets is that people tend to over-use them. Having too negative of DCAD can cause calcium issues—it mobilizes more than the cow has to offer. A rule of thumb is to feed extra calcium and magnesium to prevent this possibility.

### High calcium vs. low calcium:

Historically, the dry cow diets fed have been low in calcium—below 100 grams or less calcium in the diet. The low calcium level stimulates the cow's natural mobilization of calcium after freshening—taking it from her reserves. It still works. Unless, of course, because of the feeds we need to utilize, we can't get the calcium down that low.

In that case, we aim for calcium levels that are very high such as 150-200 grams in the diet. In this situation, we are going to provide all the calcium she needs—instead of relying on her mobilizing calcium from her reserves. A word of caution here: be sure you feed magnesium at the recommended level of 0.4-0.45% of the diet—you need to provide the entire mechanism for her to receive enough calcium.

Dry cow diets are just too important to ignore. They make or break a cow's entire lactation. Make sure you're on a good one and following the rules.