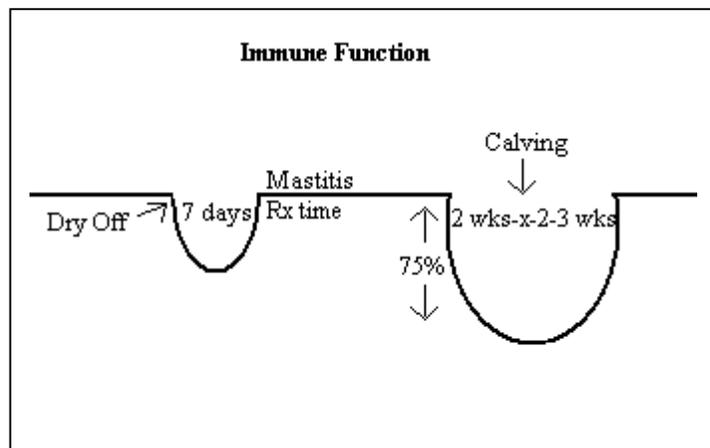


## Dry Cow Management Dr. Paul Dettloff- DVM

Managing the dry cow starts during the last trimester of lactation. This last trimester is the period when the bovine should be gaining back her body condition after coming off her lactation curve. The last thing anyone wants in a dry off is an animal that is skin and bone. On the flip-side you do not want an animal that is hog fat going into her dry period. The last trimester is when you want to control the grain so you can get her body condition where you want it.

One underlying concept the dairyman must know and be very aware of during the dry period is the two omnipresent dips in immune function that all female herbivores experience. Immunologists uncovered this in the 1980's and it has been a well-kept secret in the dairy industry. The two dips are as follows. At dry off the immune function is lowered by the endocrine system. A tight udder triggers the endocrine system to hormonally switch from a lactating animal. The second bigger and longer drop starts about two weeks before calving and bottoms out at calving. It will take two to three weeks to return to normal. Experts say that in some cows 75% of immune function is shut down.



If possible any stress should be avoided during these two times of lowered immune function. Vaccinations should be avoided during dry off and around freshening. Unfortunately these two time frames have been adopted as times to vaccinate for everything and anything in the dairy world. **Avoid these windows at all costs.**

The dry cow should have a high forage diet with at least 10 pounds of dry hay for good rumen function. The potassium level should be monitored in the forage. A correct balance is to approach a one-to-one ratio with calcium and potassium. This may be hard to do. If one can get the calcium levels above 1% to 1.4% on a dry matter basis and the potassium in the low 2% range this is acceptable. Minerals, calcium and phosphorus should always be available free choice. The ratios will be determined by the forages fed. A good level of selenium and traces should be available also. In the winter, a good level of vitamins should be supplemented. A target figure would be to have your animals on 100,000IU to 200,000IU of vitamins A per head per day. The vitamins D and E should be supplemented as well.

Because of the natural dips in the immune system if you want to upgrade the immune function follow these tips:

- 1) If you are ever going to want to kick up the cow's immune system for one month, which will effect the next 11 months, the time to do it is the 4 weeks just before calving. I prefer 2 ounces of kelp meal mixed 50% with Redmond Natural Salt. You can also put this in the TMR or some have chosen to just free choice it. Salt in the loose form should also be provided. I like the unrefined natural products.
- 2) A second way to put the immune system in high gear is to add some Aloe Vera pellets to the ration. Levels of two to four ounces are commonly used. More and more organic dairymen are using this during the big immune function dip. They typically start about two weeks before calving. The window starting one week after dry off is the time to do your mastitis, somatic cell and dry cow mastitis clean up. This is when you become proactive. Any high cell count or mastitis problem cow is attacked at this time.

I like to go on a regimen of a whey product SQ of about 30cc by the tail head. Hit them with 300cc oral drench of antioxidant tincture for three days. They should also go on a garlic tincture either orally or vaginally for three days. During this three-day time period, strip them out two-to-four times a day to flush and clean the udder. If a few more days are required, continue on with this regiment. This may be repeated in a few weeks when the udder has shrunk down. Any animal that has had a history of udder trouble or has excessive udder swelling in the immediate pre-fresh state should be considered for pre-milking. Start ten-to-twenty days before freshening if you suspect mastitis or just lots of edema. Bring her into the milking line, wash her up and spend some time massaging and washing her at first to stimulate Oxytocin let down. The first two to three times you may get nothing, but usually they will let down. Milk her to see what you have, if it is bad keep milking and treating her. Go right up to and through calving. Colostrum will be there, it's formed at calving not before.

You are doing three things:

- 1) Cleaning up the colostrum by getting the dead cells and debris (pus) out of the system.
- 2) Cleaning out the mastitis and treating her at the same time.
- 3) Reducing udder edema.

Do not use any whey products two weeks before calving as you may precipitate calving-whey can do this. Grain feeding to the dry cow is based on body conditioning as said previously, this is not the time to get them hog fat. Introduction of a little grain before calving is fine for a thin cow or to get her slowly up to speed before calving. The less you disturb a cow during her four-week immune dip the better off you are. I evaluate a herds' immune level by how many train wrecks they have the first three weeks after calving.

When I am consulting and encounter a high production, high grain, highly acidic, overly vaccinated BGH herd I will focus on the three weeks after calving to evaluate what level there immune function is at and invariably their sick cows and death loss will be highest shortly after calving. Organic Valley grazers and high forage feeders may not realize the many long term benefits you get by raising your immune function. Prevention is a key

strategy and reducing stress during this critical time will go a long way towards improving the health of the herd.

*Dr. Paul*

*Any questions call me at 608-323-3047*