

NORTHWEST VETS NEWSLETTER

Prepared by Dr. Peter Averill
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Dry Cow Management Important in Controlling Mastitis

Step seven of the National Mastitis Council's Mastitis Control Program is geared toward practicing effective dry cow management. Of the ten steps involved, this one may be one of the more important ones to pay attention to. Research data shows that as many as 55% of environmental streptococcal infections established early in the dry period persist into the next lactation and that over 50% of all clinical coliform mastitis cases in the first 100 days of lactation may originate in the dry period. A case of coliform mastitis at or around the time she peaks could have a profound impact on a cow's production for the entire lactation. Following the points below should go a long way in helping to improve udder health in your herd.

- ✓ Dry treat each quarter of each cow with a commercially available approved dry cow antibiotic immediately following the last milking. Be sure to disinfect each teat by predipping them, allowing 30 seconds of contact time, wiping teats and teat ends thoroughly, and then swabbing each teat-end with an alcohol swab. Use the partial insertion method of dry treatment infusion, limiting contamination of the other clean teat ends during the process. Dip or spray teats upon completion.
- ✓ The use of internal teat sealants helps to reduce new infections originating during the dry period. They produce a barrier within the streak canal that can block the passage of bacteria into the mammary gland. Quarters treated with a commercially available teat sealant and dry cow treatment were 33% less likely to experience a clinical mastitis event between dry off and 60 DIM. Be sure to wipe teat-ends with a new alcohol swab after DCT, before infusion of the sealant.
- ✓ For higher producing cows, it may be a good idea to reduce the energy density of the diet and/or limit water intake for 12-24 hours prior to drying off. Research has shown that as milk production level at dry-off increases above 27 pounds, the risk for developing an environmental case of mastitis around the time of calving increases significantly.
- ✓ Provide adequate dry cow nutrition to enhance immune system function. Vitamin E and selenium levels are especially important for maximal immune function.
- ✓ Ensure that dry cow environmental management is appropriate to reduce exposure to pathogens. Clean and dry is optimal for good udder health, whereas dirty and damp is best for the bacteria that cause mastitis.
- ✓ Vaccination-J5 core antigen vaccines (J-5, J-Vac®, Bovilis J-5) are not associated with a reduction in the number of new dry period infections but they do decrease the clinical effects of the infection and should be part of the complete dry cow mastitis prevention package. These vaccines are able to reduce bacterial counts in

milk, resulting in fewer clinical symptoms by enhancing the ability of white blood cells to destroy the bacteria.

The Job is not Complete Without Proper Bunk Packing

Bunkers require the highest moisture levels of between 65 and 70 percent. Any drier and you won't be able to achieve a good packing density. Air will infiltrate and a prolonged fermentation will occur, burning up valuable carbohydrates and making the protein unavailable. Ensiling it too wet may lead to a clostridial fermentation in haylage, producing high levels of butyric acid. Upright storage structures and bags require less moisture.

Filling bunkers should be done as quickly as possible, using a 'progressive wedge' technique which minimizes exposure of the ensiled crop to the air. Haylage piles should be built up in layers no more than 6 inches deep and compacted thoroughly. Good compaction is absolutely essential for profitable haylage production. Kansas State research has shown an inverse, linear relationship between dry matter losses and compaction density after 180 days from ensiling. Their results show that if you only achieve 10 pounds per cubic foot of dry matter density, you will lose 20 percent of the dry matter. Doubling the dry matter density to 20 pounds per cubic foot will cut your dry matter loss to only 10 percent.

Bunk sides should not be too steep. A slope of 1 foot in height for every 3 feet in length is the goal. This is not only a safety issue; proper packing is less likely to occur in piles packed at greater angles. The height of the pile should not exceed the walls surrounding it.

