

Managing The Dairy Herd Under Drought Conditions

By Bill Earley

Ruminant Business Development Manager



Many areas are dealing with drought conditions including Wisconsin and Illinois. Drought conditions place added stress on the dairy herd by compromising the opportunity to utilize homegrown forage and grain. Additionally, under drought conditions, heat stress is accentuated with pasture quality becoming prematurely compromised thus increasing nutrient demands placed on the animals being grazed.

Drought Strategies:

- Evaluate forage availability and inventories on hand - what is left and how far will it get me?
- Evaluate nutrient quality of feedstuffs that are available.
- Work with nutritionist to evaluate various options including complete feeds, roughage built in complete feeds, utilization of non-forage fiber sources or grain extenders.
- Evaluate ingredient options in the marketplace and commodities that have an abundance of availability such as DDGs.
- Establish a management plan to provide high production groups with the highest quality feedstuffs available, budgeting the best feeds for those that are paying the bills.
- Cull those non-productive animals that aren't paying their way.
- With drought-stressed forages often NDF digestibility is compromised, which decreases dry matter intake. Liquid feed ration conditioners may be an excellent way to enhance dry matter intake.
- Animals on pasture will need supplemental nutrition. Consideration of liquid feed supplements may be a good alternative to deliver essential nutrients otherwise available in high quality pastures.
- Locating a good source of additional forage i.e., dairy producers that may have reduced herd size or gone out of business and have additional forage supplies available. Also seek out reputable suppliers of high quality hay from areas not affected by drought conditions.
- Producers may consider planting fast growing forage crops such as sorghum sudan grass to help provide additional forage supplementation.
- Producers have to weigh whether fields that had been dedicated to providing corn grain would be better served cutting for corn silage. One word of caution is the potential for high nitrate concentration that can accumulate in the drought-stricken corn plant and cause toxicity in the animal. This is especially a problem after a rain when the plant begins to grow again, creating high concentrations in the plant. Nitrate levels will typically subside if the plant maintains normal growth and sets an ear but DO NOT harvest corn for a few days after heavy rain has stimulated renewed growth. Check nitrate concentrations on drought-stressed crops before feeding to cattle. If nitrate levels are high, blend down with forages that contain normal nitrate concentrations.

% of Nitrate in Dry Matter

Feeding Instructions

0.0 - 0.44 %

Safe to feed. But, be cautious with pregnant and younger animals at the upper level of range.

0.44 - .088 %

Generally safe when fed in a balanced ration. For pregnant animals limit to one-half of total dry ration. Be sure water is low in nitrates. Might experience lowered production and Vitamin A deficiency symptoms in 6-8 weeks in some cases.

0.88 - 1.50 %

Limit to ¼ of total dry ration. Fortify well with energy, minerals and Vitamin A. May have a milk production loss in 4-5 days and possible reproductive problems over period fed.

>1.50 %

Toxic. Do not feed. Sudden death, abortion, severe depression, and/or difficulty breathing may occur.

- Ensiling will also reduce nitrate concentrations. Fermentation can drop nitrate levels some 40-60%, but because the fermentation process takes 2-3 weeks to complete do not feed fresh drought-stressed forage.
- Also know that potentially lethal gases can occur when ensiling high nitrate forages. They are most deadly 12-60 hours following silo filling. These gases will typically leave a yellowish-brown stain on wood, silage or other material it comes in contact with. Be sure to tell all workers and family members about this danger. Also be aware of any dead birds or other tell-tale signs of lethal gas concentrations.
- Producers need to contact their local or state extension personnel to determine what drought assistance may be available to help subsidize additional feed costs incurred as a result of the drought.

Drought conditions require the development of a prompt action plan to minimize it's adverse effects. Dairy producers should work with their ADM Alliance Nutrition professional to develop the most appropriate plan for their operation.

