



DAIRYINFO

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Taking service to another level!

MANAGING DROUGHT-STRESSED CORN

If current weather patterns continue, there may be a great deal of drought-stressed corn in many parts of the country. Regardless of the climatic stresses, drought-stressed corn still contains some valuable nutrients to contribute to your feeding program. The key to harvesting and utilizing the nutrients is good management – you have to pay particular attention to certain considerations during and after harvest. You will probably experience substantially lower yields than in a more “normal” year. It is important to remember that regardless of the number of ears or extent of grain fill, total plant moisture content dictate when you start chopping. Don’t delay harvesting once the plants begin to die (approximately 65-70% total plant moisture). The recommended harvest height should be 6-8 inches above ground, because nitrate concentrations are higher in the lower part of the corn stalk.

While many producers consider green chopping drought-stricken corn or allowing cows to graze these fields, these practices are not recommended due to a risk of nitrate toxicity. Nitrates accumulate in the plant only if a large amount of nitrate is present, either from fertilizing with nitrogen, or if something interferes with normal plant growth (i.e. drought). Additionally, rain on drought-stressed plants will cause plants to take up soil nitrates at a much faster rate. If corn is harvested too soon afterwards, toxicity may occur. A cow’s system can tolerate a moderate level of nitrate; however, high concentrations can overwhelm the animal’s system, decreasing the oxygen carrying capacity of the blood. When a ruminant consumes nitrates, they are converted to nitrites, which are absorbed and can cause toxicosis.

Analyze drought-stressed corn prior to feeding it.

Ensiling drought-stressed corn is an excellent way to decrease the nitrate level. It can reduce the nitrate level up to 50%. Ensiling at optimal moisture content (65-70%) will help ensure proper fermentation and reduced nitrate content. Harvesting drier corn will result in poor fermentation and fewer nitrates being eliminated. Waiting at least three weeks after ensiling prior to feed-out allows for adequate fermentation and reduction in nitrate concentrations.

Here are a few tips and considerations on ensiling and feeding drought-stressed corn:

1. Drought-stressed corn can typically be salvaged as a usable feed if you follow specific management criteria. Be aware that nitrate toxicity can pose a serious concern to livestock health and productivity.
2. Ensiling usually reduces the amount of nitrate nitrogen by up to 50 percent (%).

3. Properly sample and test drought-stressed corn for nitrate content. If using silage from drought-stressed corn, adjust the ration to keep nitrate nitrogen concentrations below 1000 ppm of ration dry matter.
4. Apply a quality inoculant or preservative at time of ensiling, to aid in fermentation and preservation, which reduces levels of nitrates in silage. Ask us for specific product(s) and application details.
5. Pack silage well! **Dry corn does not pack well.** Air can be trapped, which causes heating and molding to occur, rather than enhancing proper fermentation. This results in poorer quality silage at feedout.
6. Although often impractical to do at levels that will make a meaningful difference, adding water at ensiling may improve the fermentation process, particularly when used with a properly formulated preservative (see Item 4).
7. Wait a *minimum* of 3 weeks before feeding silage from drought-stressed corn.
8. As drought damage intensifies, energy content of corn decreases and protein increases. It is important to analyze forages to be able to properly formulate rations containing the potentially higher protein silages.
9. Exercise caution when feeding urea or urea-containing feeds along with drought-stressed corn silage. Much of the nitrogen in the leaves and stalk is very soluble, which behaves similarly to urea.

Feeding for fall & winter -

Feeding cows is somewhat different in the fall than during the spring and summer months. The challenge of balancing rations this time of year can be big, due to the variability of forages. It is important to have silage analyzed, giving adequate time for the entire fermentation process to take place. Depending on a number of factors, submitting samples for analysis on a timely basis can signal necessary changes to rations, which then impact on productivity, health and profitability.

This harvest season will inevitably show significant variation in forage quality, nutrient composition and yield. Many areas have experienced a drier than normal season, which impacts on crop growth and maturity. Some places have enjoyed almost a perfect growing season and will harvest a bumper crop, given the right conditions this fall. Take time to assess your crops before harvest and plan accordingly: cut length, use of a preservative/inoculant, nutrient analysis, forage inventories for fall and winter feeding, etc. This can help to ensure your cows get a balanced ration that can yield results throughout the coming seasons. Here’s to a great harvest and good seasons ahead!

Interested in discussing topics in this newsletter, or want to do a better job feeding and managing your cows? Call us!

Our goal is to help you. That’s the W-S Feed commitment!

VOLUME 6 – Number 9 – September 2016

LOOKING AHEAD!

The harvest is underway and it is time to consider late summer/fall planting, as well as buying seed for the 2017 planting season. We recommend that you purchase quality, research-tested seed that can make a difference in your feeding program. Our consultants can help you with suggestions and recommendations - from grasses, small grains, and alfalfa, to corn hybrids for silage or grain! Plan ahead for all you will need this fall and next spring. Make sure the seed you select is a "fit" with your soil, climate, acreage and nutritional program. Don't wait until it is time to plant. Check it out. Invest today in quality forage for 2017. Selecting the best seed can impact your forages for improved productivity and profitability in the future.

Forage inventories...

In a year of drought and variable weather patterns, it is critical to know your forage inventories. Do you know what your forage inventories are going to be? Don't wait until fall or winter to check this out. Plan ahead, if the possibility of forage shortages exists. This can help to save time, money and frustration. Once you have determined there is a shortage and the amount of available forage you have to work with – begin to strategize how you are going to meet the needs and demands of livestock this winter. The options are many, but forward planning is critical. Here are some suggestions if forage shortages are a possibility:

- Plant specific forage crops this month! Find out what is available and plant as soon as possible, especially if you will need a fall cutting to aid supplies.
- Locate producers who may have forages to sell! Be sure to purchase not only on price, but on the overall quality and nutrient value of these forages.
- Work closely with me to determine the most effective ways of feeding what you have – whether home-grown or purchased forages.
- Make sure all the cows in your herd are paying their way! This might be a good time to cull cows that are lagging or have not been productive.

Many more possibilities exist that can help you through the coming months! I will be happy to work with you to discover the best solution for your situation.



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***SEPTEMBER 2016
CHECK IT OUT!***