

# THE FORAGER

*Agronomics with livestock in mind!*

## **Got Moldy Corn Silage? Now What?**

In spite of all the best efforts to harvest corn silage at the correct moisture level and store it properly, producers may still find yeasts and molds in their silo or bunker this winter. Coping with molds in silage can be frustrating, but proper management can help minimize their impact on the herd. *“Many undesirable yeasts and molds have been identified in forages,”* says Kathleen Emery, DVM, a dairy nutritionist with Mycogen Seeds. *“Some are harmless but others produce mycotoxins that can suppress cows’ immune systems and lead to other health problems.”*

**Identify the Problem:** If yeast and molds are suspected in silage, producers should be encouraged to consult their [Renaissance] nutritionist and veterinarian. Symptoms of mycotoxin intake can mimic many other health or nutritional issues – so it is important to accurately identify the problem. Start with a diagnostic analysis, taking samples from different areas of the silage pile. Mix the samples thoroughly and do not freeze the samples – but send them (on ice) overnight to a lab. Freezing can kill yeasts and molds that are produced by *Penicillium*, *Fusarium*, and *Aspergillus* species, and may alter the levels and types of yeasts and molds present.

If testing shows that a producer is dealing with potentially significant levels of mycotoxins, yeast and/or mold, remove the contaminated silage from cow rations! If this cannot be done, consider the following suggestions:

1. Ration dilution – dilute the contaminated silage with an equal amount of better quality silage or other feedstuffs to reduce the impact on the cow’s digestive system.
2. Feed a mycotoxin-binding feed additive that can adsorb or bind the mycotoxins and reduce absorption by the animal.
3. Practice good nutrition – ensure that the levels of dietary antioxidants (i.e. Vitamins A, E, selenium, zinc, etc.) are adequate.

If these methods are not successful, the last resort may be to dispose of the bad feeds, states Emery.

To aid in the prevention of molds next season, think about these opportunities:

- Consider the importance of hybrid selection, looking for hybrids that may offer resistance to fungal disease and insects.
- Harvest at the proper moisture content, using sharp knives and clean equipment.
- Practice good silo management techniques and use a proven inoculant to enhance fermentation, fill the silo quickly, pack sufficiently and cover silage completely.
- After opening the silo, remove 6-12 inches from the face each day.

*(Edited from an article by Mycogen Seeds –Nov. 2009)*

## **Fall Soil Sampling Important for Optimizing Inputs...**

Just as growing children need the proper nutrition to develop, a corn crop needs its required nutrients to do the same. That’s why it is important to conduct soil sampling prior to harvest or shortly thereafter.

Soil testing will give producers a ‘leg up’ on the 2010 growing season. A soil test provides insight into the levels of vital nutrients like nitrogen (N), phosphorus (P) and potassium (K) that remain in the field, as well as the pH level of the soil. With that knowledge in mind, growers can develop a more focused and educated strategy for the coming year.

*“Taking soil samples gives [producers] a reading on the pH level, which nutrients are available and whether or not the nutrient ratios are correct,”* says Mark Riehl, an agronomist with Mycogen Seed.

The results of [lab-tested] soil samples can help a producer to better understand the fertility level(s) in each field, making it easier to determine how to best spend their “fertility dollars” relative to yield goals and to balance their inputs. Some fields will show a plentiful level of nutrients, while others could be severely lacking, depending on past fertilizing and yield levels. Taking a soil sample helps to establish a baseline determination of what nutrients are needed in which field. (Note: producers may want to track this information on each field on a year-to-year basis.)

The simplicity and [relatively] low cost of soil sampling makes the process a cost-effective move, considering the alternative of not testing and applying the tried-and-true methods of past seasons. The impact of potential yield losses, combined with the high price of fertilizer, make it even more important to understand (and track) soil fertility levels on a yearly basis.

*“If producers don’t take a soil sample, they are basically just guessing,”* Riehl says. *“There is no starting point or baseline, and without that, it becomes more difficult to know how much to plan for optimum yield potential during the next harvest.”* This information can assist producers in assessing more closely their “return on investment” for each field.

*(Edited from an article by Mycogen Seeds)*

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