

What most farmers don't know about mycotoxins!

Learn how to protect your calves and high producing cows

What are mycotoxins

- Mycotoxins are toxic substances produced by fungi (molds) that grow on crops in the field or while in storage
- The effects of mycotoxins in cows are increased by production stress. High producing cows and growing cattle are most susceptible.
- Mycotoxins can have very invasive, yet sub-clinical effects on both performance and health in ruminants. If you wait until clinical symptoms are obvious, then you have waited too long.

Symptoms associated with Mycotoxins

- Depressed feed intake and poor digestion.
- Diarrhea and signs of bowel hemorrhaging.
- Estrogenic effects resulting in swollen vulvas, teats, or reduced fertility.

Agrimos is a powerful and cost effective tool

- Agrimos is a yeast cell wall that is specifically designed to act as a decoy in the small intestine
- Agrimos safely binds mycotoxins and removes them before they have adverse effects.



Information on field and storage molds

- Field fungi
 - High humidity and fluctuating temperatures contribute to their activity
 - Molds enter grain through the pollination process via silk channels and invade the endosperm
 - Molds enter the foliage portion of plants through the roots during the seedling stage from soil contamination or from damage by insects or hail.
- Storage fungi
 - Soil borne mold spores are brought into storage structure with the crops
- Mycotoxins of concern
 - The commonly diagnosed mycotoxins are aflatoxin, which is produced by *Aspergillus flavus*, DON (vomitoxin), zearalonone, T-2, and fumonisin.
- Vomitoxin as an indicator
 - Vomitoxin (DON) is the most commonly diagnosed mycotoxins and is usually associated with herd problems.
 - Typically, when other molds such as fusarium, are causing problems, DON is still a relatively reliable indicator.

Prevention strategies for silage molds (mycotoxins)

- Plant early and harvest early tends to lower mold activity
- Optimize soil fertility to improve plant health
- Rotate crops
- Timely harvest at optimal maturity and moisture
- Ensiling management:
 - Fast fill
 - Proper chop length
 - Proper packing
 - Cover to reduce oxygen exposure
 - Use of appropriate inoculants
- Feed out management that minimizes oxygen exposure

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Ask your veterinarian about the importance of preventing the adverse effects of mycotoxins.

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