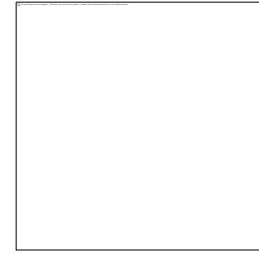


## Stored Grain

### **Fescue Toxicosis**

*Barry J. Jacobsen, Robert W. Coppock, and Michelle Mostrom*



Many tall fescue pastures in the U.S. are systemically infected with the fungi *Neotyphodium (Acremonium)* and *Epichloe* spp. These fungi are harmless to the host plant, but are responsible for a variety of symptoms in cattle known as fescue toxicosis, summer syndrome, and summer slump . The fungus is endophytic, meaning it grows between the cells in tillers, culms and inflorescences of the grasses without invading the host cells as do most pathogenic fungi which produce mycotoxins. In fact, there is evidence that the endophyte has evolved a mutualistic relationship with the grass, conferring a survival advantage in some situations. In cattle, symptoms of fescue toxicosis include reduced average daily gains, decreased milk production to agalactia (reduced prolactin levels), reduced reproductive potential, elevated body temperature, rough hair coat and sloughing of the tail. "Fescue foot" is like ergotism in that feet or other extremities may become gangrenous and drop off. "Summer slump" in cattle is characterized by rough hair coat, low milk production, low weight gains, decreased conception rate, and decreased growth and maturity. Horses typically show agalactia, abortions, thickened placenta, retained placenta, prolonged gestation resulting in large foals and dystocia (difficult birth). The ergopeptine alkaloids similar to those produced by ergot (*Claviceps* sp) have been identified in endophyte-infected fescue, but other alkaloids may be involved as well.

*Acremonium lolii* is another endophytic fungus which grows in perennial rye grass and produces mycotoxins called tremorgens. 'Rye grass staggers is caused by ingestion of the mycotoxin lolitrem B and other associated indole diterpenes found in infected perennial ryegrass. Clinical manifestations are similar to fescue poisoning.

Categories: Stored Grain, Fungi, Fescue Toxicosis

Date: 11/11/2007