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YOUR GUIDE TO EQUINE HEALTH CARE

AT A GLANCE

Equine Fescue Toxicosis

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An unseen threat to your mare and her unborn foal might be lurking in your pasture in the form of ergovaline, which is an alkaloid produced by an endophytic fungus that lives in **tall fescue grass** (Festuca arundinacea Schreb).

The fungus, **Neotyphodium coenophialum**, has a symbiotic relationship with tall fescue: The plant provides the endophyte a place to thrive while the alkaloids the fungus produces makes tall fescue insect-resistant, as well as drought and grazing tolerant.

Unfortunately for livestock, ergovaline is a vasoconstrictor that can cause narrowing of blood vessels, leading to serious reproductive issues. In horses, specifically, ergovaline exposure can cause equine fescue toxicosis.

COURTESY UNIVERSITY OF KENTUCKY; INSET: COURTESY DR. JIMMY HENNING

The fescue isn't the issue. Instead, it's the alkaloids produced by a symbiotic, microscopic fungus that lives in the grass.

Clinical signs of fescue toxicosis in mares include:

- Prolonged gestation;
- Abortion or stillbirths;
- Dystocia (difficult birth) due to the continued growth of the foal during prolonged gestation;
- An abnormally thickened and/or retained placenta;
- Mare mortality; and
- Hypogalactia or agalactia (poor or no milk production, including **colostrum**, the essential first milk that transfers antibodies from mare to the foal during the first hours of life).

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Tall fescue is a hardy, cool-season perennial bunch grass commonly found in pastures, hay, and hay bedding. It's also a quality source of nutrition. All of these factors made it popular for planting, and today an estimated **40 MILLION ACRES** of tall fescue pastures exist in the United States.

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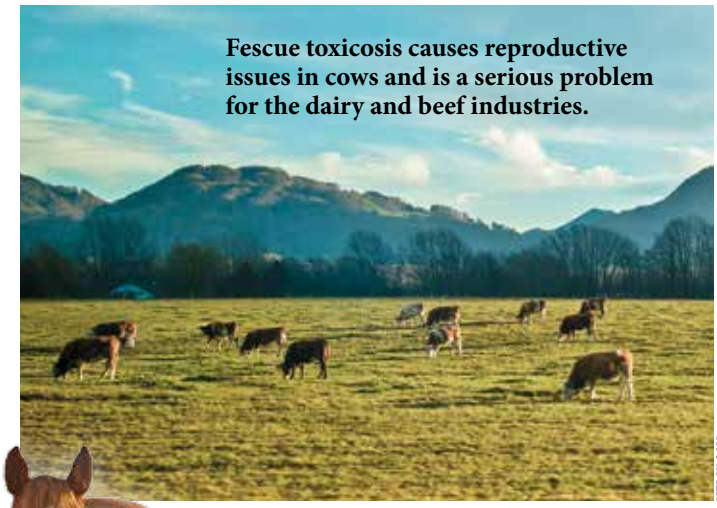
While tall fescue grows throughout the continental United States, fescue toxicosis is most prevalent in the temperate southern regions of the country. University of Kentucky researchers report that limited freezing weather might also increase incidents of equine fescue toxicosis.



Fescue toxicosis causes reproductive issues in cows and is a serious problem for the dairy and beef industries.

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Extension specialists recommend assuming any tall fescue is endophyte infected unless testing has proven otherwise. Pregnant mares should not be exposed to endophyte-infected tall fescue pasture, hay, or bedding.

In 2010, the U.S. Food and Drug Administration (FDA) approved domperidone in a gel formulation for the "prevention of fescue toxicosis, a disease that can cause serious reproductive problems in horses." According to the FDA and the product manufacturer, domperidone administration blocks ergovaline's toxic effects at a cellular level.

Eradication of tall fescue in horse pastures (which can be expensive) and/or offering alternative forage sources might be recommended. Diluting ergovaline in the diet with fescue-free hay or complete feeds is an additional strategy. If you have concerns about fescue toxicosis, your veterinarian and local extension specialist are your best sources of information specific to your region.