

What is it about tall fescue that causes animal problems (i.e., fescue toxicosis)?

Dennis W. Hancock, Extension Forage Agronomist, Crop and Soil Sciences Department

Most tall fescue plants growing in Georgia have a fungus that lives in the plant. This fungus (known by its scientific name, *Neotyphodium coenophialum*) is an endophyte. "Endo" (which means within) and "phyte" (or plant) means an organism that lives within a plant. The terms "fescue fungus", "endophyte", "fungal endophyte", and "fescue endophyte" have all been used to describe the fungal organism that grows within endophyte-infected tall fescue. It is generally accepted that these terms refer to the same organism.

This endophyte imparts some very positive characteristics in the tall fescue plant that it infects (pest resistance, drought tolerance, persistence under grazing, etc.). Unfortunately, the native (or wild-type) endophyte produces ergot alkaloids. These compounds are toxic to animals and cause many disorders in livestock that ingest these alkaloids. These days, a tall fescue variety is available that is infected with a "novel" or "friendly" endophyte. This novel-endophyte imparts essentially all the positive agronomic characteristics of a wild-type endophyte, but without producing any of the ergot alkaloid toxins.

For more information on the toxins associated with the wild- or native-type endophyte, the effects they have on the animals, and how to manage the tall fescue that contain these toxins, check out these publications:

Origin and History of Tall Fescue

Tall Fescue Toxicosis and Management

Tall Fescue Endophyte Concepts

The Tall Fescue Endophyte Story

Toxic Effects of Neotyphodium coenophialum in Horses

Toxic Effect of Endophyte on Cattle



The University of Georgia and Ft. Valley State University, the U.S. Department of Agriculture and counties of the state cooperating. Cooperative Extension, the University of Georgia College of Agricultural and Environmental Sciences, offers educational programs, assistance and materials to all people without regard to race, color, national origin, age, gender or disability.

An Equal Opportunity Employer/Affirmative Action Organization Committed to a Diverse Work Force

CSS-F033 June 2009