THE UNIVERSITY OF GEORGIA
COOPERATIVE EXTENSION
Colleges of Agricultural and Environmental Sciences & Family and Consumer Sciences

Is there a way to test for toxic fescue in my pastures (or hayfields)?

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It is expected that the vast majority of tall fescue that has survived in Georgia is infected with the wild-type (aka toxic) endophyte. Unfortunately, the ergot alkaloids that are produced by the wild-type endophyte have very negative impacts on the animals that consume it (read more about tall fescue toxicosis and its management). Without the endophyte (i.e., endophyte-free varieties), tall fescue plants do not persist well under the harsh environmental conditions in Georgia. The endophyte helps the tall fescue plant to be more resistant of pests, drought, overgrazing, and other environmental stresses. Thus, it is safe to assume that the tall fescue in a Georgia pasture or hayfield contains the wild-type endophyte.

However, this assumption may not necessarily be true for stands established since the late 1990s. A fair number of tall fescue stands have been established recently using tall fescue seeds that have been infected with the novel endophyte (aka "friendly endophyte"). The novel endophyte does not produce ergot alkaloids and does not cause fescue toxicosis, but still helps the tall fescue to be more persistent.

Testing for the presence of the wild-type endophyte is possible and encouraged if there is doubt about the endophyte status of a tall fescue stand. Furthermore, testing is available to determine the concentration of the ergot alkaloids (toxins associated with the various diseases commonly referred to as fescue toxicosis). A very thorough description of "Sampling for Endophyte and Ecological Considerations" can be found as a chapter in the Tall Fescue On-Line Monograph. Sections in that chapter are devoted to sampling procedures and to a listing of those who are available to test samples for endophyte infection. The University of Georgia does not offer a test for endophyte infection or toxicity, but there is a company in Georgia (see the aforementioned list) that provides this service.

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J. Scott Angle, Dean and Director.