Is Your Pasture Toxic?  

Tall Fescue is a common forage species in Northeast Georgia, but cattle producers should watch their herds for signs of fescue toxicosis this summer. Conditions this spring are ideal for the deadly fungus that attacks tall fescue, but good forage management can help prevent problems with toxicosis.

Cooler than normal spring temperatures and above normal rainfall combined with adequate fertilization causes conservatively stocked fescue pastures to grow more grass than cattle can eat. Most tall fescue in north Georgia is now infected with the fungus that produces toxins called ergot alkaloids.

This fungus (endophyte) lives within tall fescue (Kentucky 31 or other “native” varieties), improving its drought tolerance and stand persistence on poor soils. However, several negative impacts have been observed, including rough hair coats, heat stress, losing of ears, hooves, and tails, reduced milk production and weaning weights, reduced daily gains, poor conception rates, and aborted calves. Infected cattle will often be seen wading in ponds or loafing in shade more often than expected. But managed appropriately, the buildup of toxins in fescue can be kept to an acceptable level.

Ergot alkaloids are at their highest levels when plants get tall and lush. Tests have shown levels in seed heads are five times higher than in other plant parts and herds are more apt to eat the infected seed heads when they are fresh and succulent from adequate rainfall.

There are several management strategies to consider when dealing with fescue toxicosis:

1. *Manage to minimize the effect* - Endophyte effects on animals can be minimized with management practices. Grazing and/or clipping management that keeps plants young and vegetative will result in better animal performance. Likewise, if fescue is cut for hay in the boot stage, better animal performance will be obtained than from late-cut hay. Other practices such as fertilizing, pest control, creep grazing, and rotational grazing will result in improved overall pasture quality and animal performance.

2. *Avoid the Endophyte* - Use of other forage species avoids the endophyte. Using infected fescue in spring and fall with other grasses or grass-legume mixtures for summer grazing will avoid the endophyte during the summer when fescue forage quality is low. Since animal performance is adversely affected by feeding infected fescue hay, feeding of hay of another species can also be helpful.

3. *Dilute the Endophyte* - The endophyte or its products can be diluted through the use of other feeds in the diet. Growing legumes with infected fescue is an attractive option. Many studies have shown increased pasture production, higher liveweight gains, and improved pregnancy rates when pastures are renovated to include legumes.

4. *Kill infected stands and replant* – At one time, endophyte-free varieties of fescue were available for planting, but these stands rarely survived more than a few years when under stressful conditions. Currently, “novel” or non-toxic endophyte varieties of fescue are on the market that provide producers with a viable option for fescue production without the risk of toxicity. If converting from a toxic endophyte infected field to a non-toxic one, careful attention must be made to ensure that seed does not carry over to the new field. This most often involves suppression of seed head production in the spring, chemical burndown of the field with glyphosate (Roundup) or similar non-selective herbicide in the late summer and again four to six weeks later, and then planting the new variety within one or two days of the last spray.

For more information on fescue toxicosis or how to renovate your pastures or hayfields, you can contact the Extension office.