Forage News

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Center for Forage Management and Environmental Stewardship

Dallisgrass and Late Summer Ergot Toxicity

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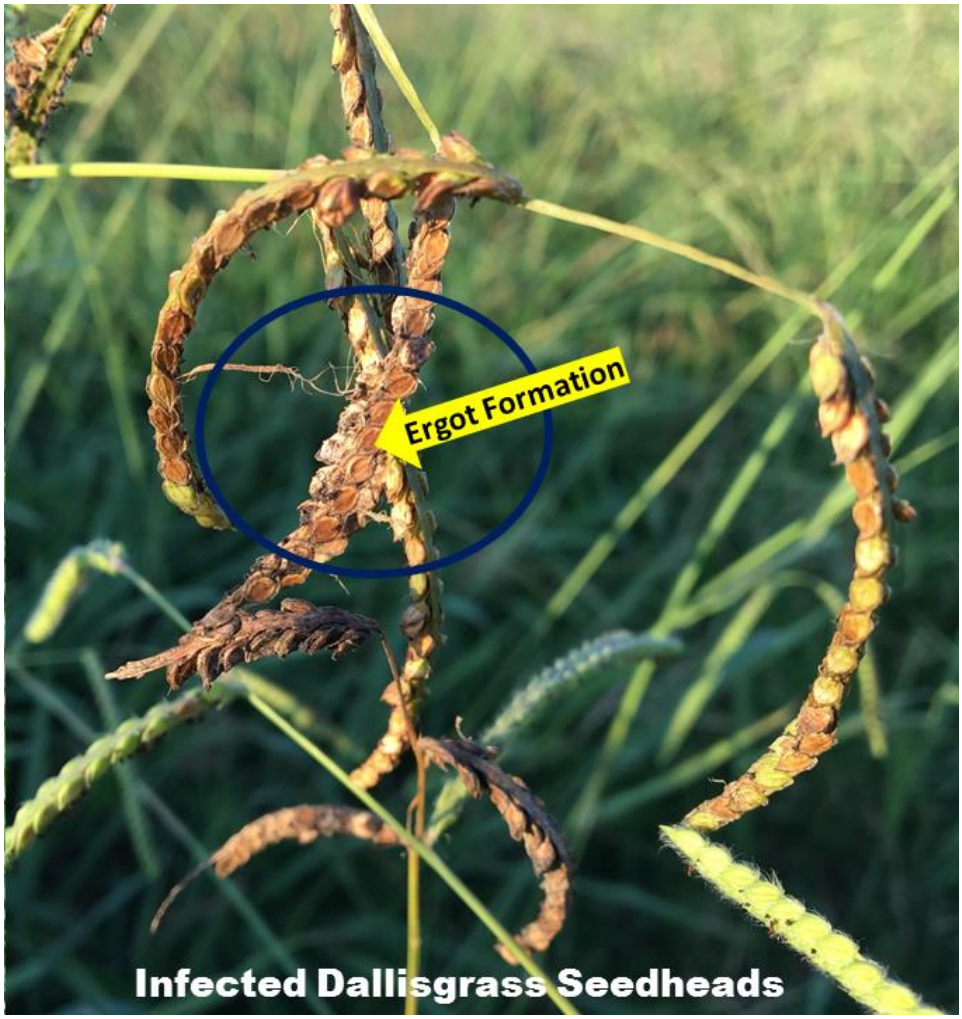
As you walk you pasture this time of the year, you notice the presence of very green, clumpsy, and coarse-textured plants full of seedheads. This is usually common dallisgrass (*Paspalum dilatatum*). This warm-season forage indigenous to South America (Uruguay, Argentina and southern Brazil) is an important grass in many pastures in Mississippi. Most of the time, it is found in mixtures with bermudagrass or bahiagrass, but hardly in a pure stand. The lack of pure stands is because there are not commercially available varieties and establishment is difficult to due to poor seed quality, low seed set, and slow germination (usually less than 50%). Vegetative propagation of dallisgrass is extremely low due it having a more fibrous root system instead of rhizomes.

Dallisgrass is very well adapted to the soil types in MS. It grows best on deep, moist sandy loam and clay soils (especially in the Black Belt area) that are not continuously flooded. Dallisgrass is also more prominent in areas receiving 35 to 60 inches of rain per year. One of the advantages of dallisgrass is that it initiates growth much earlier in the spring that other warm-season grasses such as bermudagrass and extends it growth late into the fall. Compared to bahiagrass, common dallisgrass have very good forage nutritive value and can tolerate frequent defoliation, but its grazing potential is limited by forage yields often lower than other warm-season forages.

One of the limitations with grazing dallisgrass, especially in late summer, is seedhead production. Most of the flowering is initiated in late summer and can continue through the fall. When flowering is initiated, the vegetative growth is significantly reduced due to less leaf production. Once the see heads reach maturity, they can become infected with an ergot that can cause toxicity to livestock and commonly known as “dallisgrass staggers.” The ergot is caused by the fungus, *Claviceps paspali*. Rain and very humid conditions can lead to increase in ergot fungus. The disease first appears as a dark and sticky substance in the seed in which the fungus will grow making the seedheads look yellow to dark grey color. Although the biomass of dallisgrass is not known to be toxic, the seedheads can be toxic in the pasture or in the hay since the fungus can produce three toxins. These toxins include paspaline and two tremorgenic alkaloids (paspalitrem A and B).

The literature suggest that rations containing more than 0.6% (6 g/kg) alkaloids are potentially toxic. The alkaloids can affect all type of livestock (cattle, sheep and horses), but cattle have the tendency to selectively graze the seedheads and providing the conditions for a high dosage intake of ergot alkaloids. Clinical signs associated with dallisgrass staggers in livestock are manifested by excitement, distrust of people and a tendency to attack. Other symptoms include staggers (tremble and lack of muscular control) in which they may appear drunk. Due to alkaloids affecting the nervous system, some animals may be found down and unable to stand and in some cases, diarrhea has been observed in some affected livestock.



There is no treatment for ergot poisoning. Animals can recover three to five days after grazing seedheads if they are immediately removed from the pasture and depending on the condition of the animal, the recovery might extend up to two to three weeks. If there are large quantities of dallisgrass seedheads present in the pasture, a management option will be to clip the pasture up to 12" tall to help prevent the problem and reduce seehead intake. Most of the reports of dallisgrass staggers are often received in late summer and early fall. Early diagnosis of the problem along with scouting of the pasture and moving the cows to a clean pasture can be used as preventive measure.

For more information related to dallisgrass staggers contact your local county extension agent or your veterinarian.

Upcoming Events
October 27, 2016—Cattlemen College, Hattiesburg, MS
October 28, 2016—Cattlemen College, Batesville, MS
For detailed information related to upcoming forage events please visit:
http://forages.pss.msstate.edu/events.html

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