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June 23, 2016
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Montgomery County Agricultural Resources Newsletter for Livestock, Equine & Forage Producers

Bermudagrass Stem Maggot

The bermudagrass stem maggot (*Atherigona reversura*), a new pest of bermudagrass forage in Texas has been reported in a number of counties including Montgomery County. We have seen some fields infested this spring already. The bermudagrass stem maggot is native to south Asia (from Japan westward to Pakistan) and was first reported in the United States in Georgia in 2010. This pest only infests bermudagrass and stargrass (*Cynodon* spp.). The fly (yellow with black head) lays its eggs within the stem of the bermudagrass plant. Once the egg hatches the larva, or maggot, (white with black head, 1/8" – 3/16" long) moves to the last plant node and consumes the plant material within the stem. This stem damage results in the death of the top two to three leaves while the rest of the plant remains green. This gives a stand of bermudagrass the appearance of frost damage. The amount of damage seems to be dependent on growing conditions as well as the point during regrowth when the flies lay their eggs. If there are good growing conditions with good soil fertility and moisture the loss seems to have minimal impact on dry matter yield. However, if forage production is limited by poor soil fertility and dry soil conditions more damage can result. The shoot stops elongating as a result of the insects damage. In response the plant may grow another shoot from a lower node of the damaged shoot. This new shoot can also be attacked by later generations of the bermudagrass stem maggot.

Most producers will typically see the resulting damage before finding the pest. Producers are less likely to see damage in a grazing pasture since livestock will keep forage grazed down

Management recommendations for hay meadow damage are to harvest hay as soon as possible to reduce the yield impact. If damage is found within 1 week of the normal harvest stage, proceed to harvest the crop as soon as weather conditions allow. Once the damage becomes apparent, the crop is unlikely to add a significant amount of yield. If damage is observed within 1 to 3 weeks after a harvest, it is also likely that the crop will not add a significant amount of yield. The damaged crop should be cut and baled and removed from the field as soon as weather conditions allow. Leaving the damaged crop in the field will only compete with any attempts by the plant to regrow and decrease the opportunity that the next cutting will have to accumulate dry matter.

A foliar application of any pyrethroid (beta-cyfluthrin, cyfluthrin, lambda-cyhalothrin and zeta cypermethrin) insecticide labeled for bermudagrass can control the bermudagrass stem maggot. However, guidelines on the economic return on controlling this new pest and timing of and frequency of insecticide treatments have not been clearly defined.

Management Strategies Can Greatly Reduce Risk of Disease at Horse Shows

With recent outbreaks of EHV-1 and vesicular stomatitis (VS), there is warranted concern about bringing horses together in a large gathering such as a horse show. However, good management practices can help keep your equine partner healthy in these situations. Follow these management strategies and greatly reduce risk:

- Maintain a healthy horse. If your horse is healthy, it is less likely to succumb to sickness.
- Vaccinate your horse according to your veterinarian's recommendations and maintain a current Coggins.
- Do not allow your horse to touch noses with other horses. If possible, put up tarps or a divider between your horse's stall and other unknown horses to keep them from touching.
- Clean and disinfect the stall at the show before placing your horse.
- Do not share bits, tack, water buckets or anything that comes in contact with the excretions of the horse - nose, mouth, etc.
- Do not touch other horses and discourage others from touching your horse. Sometimes the horse owner is the worst culprit in spreading diseases from horse to horse. If you do touch another horse, wash before touching your horses.
- Inform the show veterinarian and management immediately if your horse starts to show signs of illness at a show.
- Do not bring sick horses to a show.
- Upon returning home, disinfect all hard surfaces that were at the show. This includes buckets, feed pans, etc.
- Upon returning home, keep show horses isolated from other horses left at home. If they show no signs of illness they can be rejoined with the other horses after two weeks.

Summer Flooding of Hay Fields and Pastures

Most forage crops perform best when soils have adequate, but not excessive, soil moisture. Standing water, flowing water and waterlogged soils following heavy summer rainstorms or extended periods of higher than normal rainfall patterns can all cause management concerns for forage crops.

As soon as possible, check hay fields and pastures for flood debris that might damage

harvest equipment or harm livestock. Try to avoid moving into hay fields or pastures too soon because they are still quite susceptible to wheel traffic and compaction damage, which also will limit the future productivity of the field. Flooded forage may be silt-covered, which will add to plant disease potential, detract from the palatability of the harvested hay, add to the 'ash' content on a forage test, and possibly affect normal silage fermentation. Plants growing in saturated soils can be damaged physiologically. Delay harvest for a week to 10 days to allow the plants to regain what vigor and recovery that they can. This management approach will produce a more mature forage crop of lower nutritive value. In addition, take extra care to schedule a 5- to 6-week "fall rest" period for these stands. Most forage grasses cannot live for very long under water. Most forage plants can tolerate a short term of flowing water (for a few days to a week).

Standing or ponded water that "heats" in the sun and "cooks" the submerged forage plants is more of a concern and can kill or severely damage most plants within hours. After the surface water recedes, an extended period of saturated soils continues to be reason for concern. Forage plants (other than perhaps reed canarygrass) will live for a week or two in saturated soils, but the lack of oxygen in the root zone will adversely affect their growth.

These plants do not take up soil nutrients normally, an increasing part of the root system deteriorates, and legumes cease "fixing" nitrogen. They appear stunted and yellowish-green in color. If the soils drain quickly, plants begin to recover. If flooded areas are recovering slowly and you are concerned about the viability of the stand in those areas, dig random plants in several areas and evaluate the condition of the root systems.

	Economic Comparison:	
	Mechanical and Chemical Weed Control	
	40-hp tractor w/ 6' rotary mower	-hp tractor w/ 30' boom sprayer
Item		
Labor cost	\$ 10.00	\$ 10.00
Acres/hour	2.73	14.18
Costs		
Fixed cost/acre	\$ 5.58	\$ 1.43
Operating cost/acre	\$ 5.00	\$ 1.11
Labor cost/acre	\$ 3.66	\$ 0.71
Herbicide cost/acre (1 qt. Grazon P+D/acre)	\$ 0.00	\$ 8.25
TOTAL COST/ACRE	\$ 14.24	\$ 11.50
	\$2.74/acre difference!!	

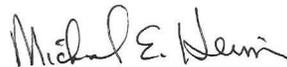
Available Disaster Assistance Programs

FSA offers disaster assistance and low-interest loan programs to assist agricultural producers in their recovery efforts following winter storms or similar qualifying natural disasters. Available programs and loans include:

Livestock Indemnity Program (LIP) - provides payments to eligible producers for livestock death losses in excess of normal mortality due to adverse weather. Eligible losses may include those determined by FSA to have been caused by hurricanes, floods, blizzards, wildfires, tropical storms, tornados lightening, extreme heat, and extreme cold. Producers will be required to provide **verifiable documentation** of death losses resulting from an eligible adverse weather event and must **submit a notice of loss to their local FSA office within 30 calendar days of when the loss of livestock is apparent.**

Emergency Assistance for Livestock, Honeybees, and Farm-Raised Fish Program (ELAP) - provides emergency relief for losses due to feed or water shortages, disease, adverse weather, or other conditions, which are not adequately addressed by other disaster programs. ELAP covers physically damaged or destroyed livestock feed that was purchased or mechanically harvested forage or feedstuffs intended for use as feed for the producer's eligible livestock. In order to be considered eligible, harvested forage must be baled; forage that is only cut, raked or windrowed is not eligible. **Producers must submit a notice of loss to their local FSA office within 30 calendar days of when the loss is apparent.** ELAP also covers up to 150 lost grazing days in instances when a producer has been forced to remove livestock from a grazing pasture due to floodwaters. For beekeepers, ELAP covers beehive losses (the physical structure) in instances where the hive has been destroyed by a natural disaster including flooding, high winds and tornadoes.

Sincerely,



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