From the Agents Desk.....

Take Advantage of Hay Testing

Last year in conjunction with the Montgomery County Cattlemen’s association we started a Hay Show and Winter Feed Program allowing producers to have their hay tested at a big discount. If you take full advantage of this program you could get all your hay tested for only 25% of what you would pay for 5 samples at normal price. So why not? But that is only the start of the benefits.

Winter Feeding is the biggest expense for most cattle producers. By hay testing you could potentially save yourself some money on supplement as well as time feeding. You could also find out that your hay is not as good as you thought, and you need to supplement your cows to help them hold their condition through the winter.

During the winter feeding program at the Hay Show, our beef cattle nutritionist, Dr. Paul Beck, will be there to speak about supplementing based on your hay results. We can also provide you with individual feed rations based on your hay tests.

Bottom line is, this program can save you time and money! So take advantage of it. See the details on the newsletter insert.

Brucellosis Vaccination Sign up

It’s time for Fall Brucellosis vaccinations of Heifers. Heifers must be 4 to 12 months of age at the time of vaccination. Vaccination dates will be October 22 or 23. If you would like to be put on the vaccination schedule, you must call the Montgomery County Extension Office at 867-2311 no later than October 11. Once you have called and signed-up your heifers, a schedule will be mailed out a week before the scheduled date.

In order for Livestock and Poultry Commission technicians to conduct vaccinations, all producers must have proper handling facilities available and the producer must be at the location of the vaccination.
In July, we identified the bermudagrass stem maggot, *Atherigona reversura* (Family Muscidae), in a bermudagrass field near Magnolia. To our knowledge, this is the first confirmation of its presence in Arkansas. This potential pest is a native of south Asia, from Japan west to Oman and Pakistan. In the U.S. it was first discovered in Georgia in 2010 and is currently found in other southeastern states as well as Oklahoma and Texas. Information on its biology, the damage it causes and control methods is very limited. Much of the work with this fly has been conducted by entomologists at the University of Georgia. To date, economic thresholds and yield loss data have not been established for this pest.

Damage caused by the bermudagrass stem maggot results from larval stages (maggots) feeding in the shoot causing the top two or three leaves to die (Fig. 1a-b). Lower leaves remain alive and unaffected by the maggot’s feeding. Because of the death of the top couple of leaves, the plant (and field, if heavily infested) will exhibit a frosted appearance. In Georgia (likely very similar in Arkansas), the life cycle from egg to adult requires about three weeks (21-25 days but can be shorter). The adult female fly will lay eggs on the bermudagrass stem near a node. The maggot will hatch from the egg, crawl up to toward the last plant node (where the leaf blade emerges from the stem) and burrow into the shoot and begin feeding. Often by the time the top leaves have died, the maggots have exited the stem and pupated on the ground. With such a short generation period, multiple generations occur and populations tend to increase later in the season and damage tends to accumulate.

The adult fly is small (~1/8 inch long) and yellow colored with four prominent black spots on the abdomen (Fig. 2a-b). The maggot (larva) is also yellowish colored and about 1/8 inch in length when fully mature (Fig. 3).

Although yield data and economic threshold data is very limited, experiences in other states provide basic guidelines to consider. In general, this pest is less of a problem in coarse stemmed bermudagrass varieties (Tifton 85), bermudagrass that is grazed or bermudagrass that is baled for cattle hay. In grazed pastures, cattle eat the fly eggs and maggots along with the grass preventing the population from building up. Bermudagrass stem maggots can become an economic pest in finer stemmed varieties (common, Coastal, Alicia) that are baled for horse hay especially later in the season after the population builds. The issue with horse hay is that the dead top leaves cause an unsightly appearance to some in the horse hay market, resulting in rejected hay.

Growing conditions influence the amount of damage caused by the bermudagrass stem borer. Impact on yield is lessened when soil and moisture conditions allow for normal rapid growth. In this situation, loss of a few upper leaves would have a smaller impact on yield. In situations where growth is limited by poor soil conditions and moisture, yield losses may occur. Researchers believe this is because the slow growth rate allows egg-laying and maggot development to occur earlier in the grass growth cycle. Also, in heavy infestations, regrowth after cutting will be slowed substantially which is more likely to occur later in the season.

Management options for the bermudagrass stem maggot include harvesting and in some cases insecticide application. Cutting for hay is usually recommended if damage is identified within one week of normal harvest. When damage is apparent from one to three weeks after harvest, yield may be compromised, so harvest (if yield is sufficient to warrant cutting) would be an option. To date, researchers have evaluated a variety of foliar insecticide formulations and found that pyrethroid insecticides labeled for use in hay fields to be the least expensive and most effective method. These insecticide treatments should be applied after cutting. Alabama and Georgia recommendations are to apply pyrethroid insecticides after the grass begins to resprout after cutting. Because pyrethroid insecticides have little residual activity, a second application five to seven days following the first application may be needed in cases where damage levels and fly pressure are high. Researchers also suggest that a single round of applications may provide enough control to protect the grass though the remainder of the growing season.

Some have voiced concerns about the possibility of the bermudagrass stem maggot being transported from farm to farm in
Baled hay. Bermudagrass stem maggots are very unlikely to be transported in this manner. This is because maggots in the stem will die as the hay dries (maggots need moisture). Mature larvae that pupate do so after they exit the stem and pupate on the ground.

Although research has shown that turf bermudagrass varieties are attacked by this maggot, the frequent mowing of the turf does not allow the fly to complete a life cycle before the next mowing.

With this being a new pest in Arkansas, we are trying to determine the extent of the damage and range of this pest in Arkansas. Please call or email if you suspect a bermudagrass field is infested with this pest. Its presence is determined by damage and can be confirmed with adult collections of the fly. Adults are easily collected by using a sweep net to collect the flies in the bermudagrass.
Pesticide Applicator Training Planned

When: February 4, 2013
Where: Montgomery County Courthouse Annex (Extension Office)
Time: 6:00 p.m.
Cost: $10 to attend training
$45 for a 5 year pesticide license
Who: This class is for restricted use
Pesticide applicators who need to be recertified or for commercial agriculture producers who are interested in obtaining a license.

Federal law requires that a person who purchases or applies a restricted use pesticide must have a current pesticide applicator license and receive periodic pesticide safety training. If you wish to purchase and/or use restricted use pesticides must have completed this class and have purchased a license.