Volume 4, Issue 1
March 18, 2015

TEXAS A&M AGRILIFE EXTENSION

FORT BEND COUNTY

Agriculture Newsletter

Inside this issue:

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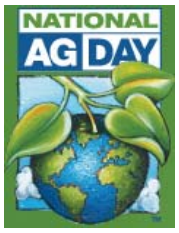
Thank You to Our Ag Producers



The week of March 16-20 marks National Agriculture Appreciation Week, with National Ag Day, hosted by the Agriculture Council of America, celebrated on Wednesday, March 18. In reality, far too many people are unaware of the role of American agriculture in their daily lives and what it really takes to have food on their dinner table.

Just a few generations ago, most people were a part of - and had friends or relatives involved with - agriculture. Here in Fort Bend County, we are fortunate to have part of the county that is still very active in agriculture, as agriculture is responsible for providing the necessities of life—food, fiber, clothing, and shelter.

American farmers are working harder than ever, and it shows. Today, each American farmer feeds more than 144 people and the need for food produced in the United States is dramatic. Agriculture is this nation's #1 export and vitally important in sustaining a healthy economy.

And it's not just the farmer who makes our food possible. The entire agriculture industry, all the way to the grocery store, are vital links in a chain that brings food to every citizen - and millions of people abroad. Frankly, it's easy to take agriculture for granted in America. Our food is readily accessible and safe. For this, we're unbelievably fortunate, but that doesn't mean we don't have an obligation to recognize how it's made possible.

Thank you to all of the producers and the agriculture industry in Fort Bend County and elsewhere for providing us with the safest, most affordable food and fiber in the world!

Entomology Update

By: Robert Bowling, Extension Entomologist and John Gordy, County Extension Agent

Because of the recent and abundant rain, very little corn has been planted and as it gets later with the potential for additional delays, those acres may be put into either sorghum or cotton. With these delays, monitoring insect pests will be critical to avoid bumps that could derail production goals.

Cutworms: Several moth species commonly known as cutworms can be severe pests of corn. The larval or immature stages are smooth and colored dingy to grayish-black.

Entomology Update, continued

Figure 1. Cutworm feeding on corn

Cutworms are active at night and damage corn or sorghum by cutting the stalk just above ground level. Large cutworm populations may be found in grassy or weedy areas. Most cutworm species hide below the soil close to plant stalks during the day. Some Bt corn products, such as SmartStax®, and Powercore™, Optimum® Intrasect®, provide good to very good suppression of black cutworm. Insecticide seed treatments may be inconsistent and their performance against cutworms. Monitor all corn for cutworm damage through the 5th leaf stage. When cutworms are damaging plant stands, an application of insecticide by ground will usually provide adequate control. Best results are obtained when insecticides are applied in the late afternoon. Dry, cloddy, or crusty soils at time of treatment may have a negative impact on insecticide performance against cutworm.

Chinch Bugs: Adult chinch bugs are black with whitish wings and approximately 1/6" to 1/8" long with black bodies and reddish-yellow legs. When fully developed, the white wings are marked with a triangular black spot near the middle of the back on the outer wing margin. Immature chinch bugs are reddish to blackish with a white band across the middle of the back. Adult and immature chinch bugs suck plant juices and cause reddening of the leaves. Large numbers of chinch bugs can move into a cornfield by crawling or flying from wild bunch grasses or small grains. Once in the field they congregate and feed behind the leaf sheaths of the corn or sorghum plant and below the ground line on plant roots and crowns. Damage by chinch bugs normally occurs from seedling emergence until the plants are 18 inches tall. Stressed plants wilt and die from prolonged feeding. Damage is usually confined to the outside few rows.

Figure 2. Chinch bugs on corn

In fields with a history of early-season, economically damaging chinch bug populations, the use of at-plant soil-incorporated insecticides can suppress the development of chinch bug populations. Young plants should be closely monitored for chinch bugs and feeding damage after germination and particularly during dry periods, even when at-plant insecticides are used. Make at least five random checks in the field. *Insecticide should be applied when two or more adult chinch bugs are found on 20 percent of the seedlings less than 6 inches high. On taller plants apply insecticides when immature and adult bugs are found on 75 percent of the plants.*

Sugarcane Aphid: The sugarcane aphid has garnered much attention by Texas sorghum producers since it was found damaging fields in 2013. In 2014 the aphid spread throughout south Texas sorghum production fields and into the northern Texas Panhandle by October. It is hard to say what the aphid will do in 2015 but my best guess is that we should expect much of the same from it as in the previous two years.

Figure 3. Sugarcane aphid abdomen to show dark cornicles

Typically, the aphid is found in colonies on the underside of the lower leaves. Overwintering aphids may move to the base of live plants during cold environmental conditions. Morphological characteristics important for sugarcane aphid identification include the dark cornicles ('tail pipes') and dark tarsi ('feet) (see Figure 3). Hosts include any sorghum species including grain sorghum, forage sorghum, sudangrass and haygrazer. The aphid needs a live host to overwinter and can be found on any volunteer sorghum or johnsongrass.

Thus far the aphid has been observed overwintering as far north as Matagorda and Wilson counties (see Figure 4). Figure 5 shows overwintering sugarcane aphid on johnsongrass in Wilson County. To date overwintering colonies have been comprised

of wingless adult and nymphs (immature) aphids. Absence of winged adult sugarcane aphids suggests that flights to other areas are not imminent. Efforts will continue to track the aphid throughout the winter and into spring and producers will be alerted when winged adults are observed in the field. Look for updates on overwintering aphid populations and aphid movement as the season progresses.

This year two insecticides, Sivanto and Transform, have been approved for use on sugarcane aphid in sorghum. Numerous efficacy studies have revealed that Sivanto provides excellent sugarcane aphid control in sorghum when used at Section 2ee labeled rates of 4 to 7 oz/ac. Bayer CropScience indicates that this product is compatible with many beneficial insects and predatory mites. Sivanto has a preharvest interval (PHI) of 21 days for dried grain, stover or straw, and 7 days for forage. The EPA granted a Section 18 on Transform for Texas.

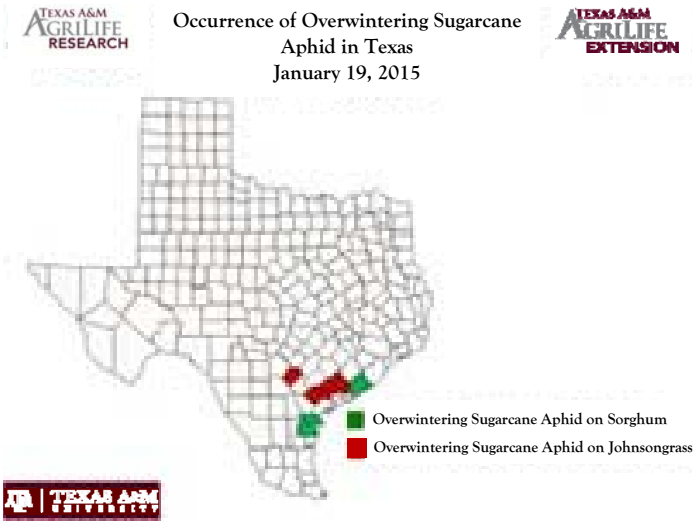


Figure 4. Map of overwintering on sorghum or Johnsongrass

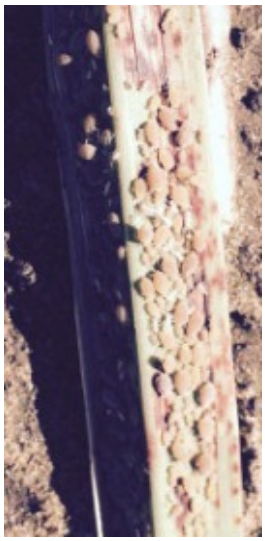


Figure 5. Sugarcane aphids overwintering on Johnsongrass

This Section 18 runs through October 31 and allows for two in-season applications of Transform for sugarcane aphid in sorghum. Labeled rates range from 0.75 to 1.5 oz/ac. The Section 18 allows for two applications per acre per year and not to exceed 3 oz/ac. A higher rate range is recommended for heavy sugarcane aphid populations. This product has a 14 day PHI for grain or straw harvest and a 7 day PHI for grazing or forage, fodder, or hay harvest. Insecticide applications are suggested when sugarcane aphid densities average 50 to 125 aphids per leaf. Please monitor all sorghum fields (including forage sorghum, sudangrass, and haygrazer) carefully throughout the season as this aphid can build its populations to high numbers in a very short period of time.

For Texas A&M AgriLife discussion of a practical view toward current grain sorghum hybrids that the grain sorghum industry has designated as 'Tolerant' see the Jan. 29 "Sorghum Tip" published by Texas Grain Sorghum Association at http://texassorghum.org/sorghum-tips.

Powercore is a registered trademark of Mycogen.

Smartstax is a registered trademark of Monsanto Technology LLC.

Optimum and Intrasect are registered trademarks of DuPont Pioneer.

Does a New Year Mean a New Pasture/Hay Meadow?

By: Vanessa Corriher-Olson, Assistant Professor and Forage Extension Specialist, http://foragefax.tamu.edu

It's always best to initiate the planning process the year prior to actual planting. So start planning in 2015 to plant in 2016. Instead of planning in 2015 to plant in 2015.

Evaluate the farm's forage needs. Consider how the forage will be used (grazing vs. hay), what species are better adapted to your area (season, soil type, rainfall) and what resources (equipment, money, and time) are available. Reestablishment should be considered when less than 40% of the desirable species exist.

Figure 1. A Coastal Bermudagrass hay field that has lost production

For exclusive hay production:

-Take visual appraisal of meadow. Bald spots may fill in with time, fertilization and weed control. Or bald spots may be filled in with sprigs or seed.

-Determine if you have seen a reduction in production (quantity produced). If hay production has been reduced considerably reestablishment may be desirable.

-Determine if other forage species and/or broadleaf weeds have invaded the field. They may be easily controlled with herbicide.

-Collect soil samples, have samples analyzed and correct any soil deficiencies.

-Select species adapted to your area. Visit with county extension agents or forage specialist to determine options based on your location (soil type and rainfall distribution).

-In late summer the year prior to planting (for warm season forages), destroy existing perennial grass vegetation.

-Implement the correct planting method (seeding vs. sprigging) and rate.

-Implement a weed control program.

-Use proper management to maintain a productive stand.

Keep in mind a newly established pasture/hay meadow may not be very productive the year of establishment. Therefore, be prepared to have other forage options for livestock during that season.

Using Topguard to Control Root Rot: Pay Attention to That Label

By: Thomas Isakeit, Professor and Extension Plant Pathologist.

Topguard (flutriafol) finally has a section 3 (full registration) label for control of Phymatotrichopsis root rot of cotton ("cotton root rot"). This label is permanent and will permit Topguard use in all states where cotton root rot is a problem, not just Texas. Additionally, there is also a section 18 label for Texas for 2015, which was requested just in case full registration was not granted in time for the growing season.

However, the intention of the makers of Topguard, Cheminova (under review to be merged with FMC) was that the full registration would be used with a different formulation of Topguard, known as "Topguard Terra". This formulation is approximately 4 times as concentrated with the active ingredient, flutriafol, as Topguard that was sold with the section 18 label. There are no appreciable differences in the performance of the active ingredient and the properties of carriers between the formulations. Since both formulations will be sold for the time being, it is very important that whatever formulation the grower buys, the grower pays attention to use rates printed on that container. Eventually, probably by next year, only Topguard Terra will be available for cotton.

The Topguard that has been used for the past few years has 1.07 pounds active ingredient per gallon and is used at a rate of 16-32 fluid ounces per acre. Topguard Terra has 4.17 pounds active ingredient per gallon and is used at a rate of 4-8 fl. ounces per acre. Containers of these formulations will be clearly labeled (see figure 1). Although instructions on both labels are similar, the major and obvious difference is product use rate per 1000 row feet, based on row spacing. For example, with a 16 fluid ounce per acre rate of Topguard and a row spacing of 40 inches, 1.22 fluid ounces is applied per 1000 feet of row. To apply that same amount of active ingredient of flutriafol in that same 40 inch row spacing, Topguard Terra would be applied at 4 fluid ounces per acre, or 0.31 fluid ounces per 1000 feet of row.

Figure 1: Comparison of Topgaurd and Topgaurd Terra labels

There are no differences in the use patterns between the two Topguard formulations. Both are still labeled for at-plant applications only, either by a T-band or modified in-furrow technique. The modified in-furrow technique may perform better under conditions of low rainfall than the T-band technique. The T-band technique may be preferable with fields that are sprinkler irrigated.

Ideally, irrigation or rain occurs shortly after crop emergence (several days to two weeks), to redistribute the fungicide. The crop should never be planted dry, then watered in, because of an enhanced risk of phytotoxicity. Unfortunately, phytotoxicity as delayed or reduced emergence may occur if there is rain before crop emergence. Research is on-going to determine strategies to prevent such phytotoxicity, including other methods of application.

Topguard to Control Root Rot, continued

We have observed performance problems caused by clogging of application orifices. This problem can inadvertently show that the fungicide is working (see figure 2). Growers should pay attention to this problem, particularly first-time users. Flow meters could identify when clogging occurs. Different application products may alleviate the problem (e.g. larger orifices in the rebounder, or a T-band spray nozzle set higher). First-time users should also consider leaving a small, non-treated area in the field to identify performance and allow comparisons of crop emergence.

If you have any questions, contact me at:
(979) 862-1340 or t-isakeit@tamu.edu.

Figure 2. Difference of treatment due to clogged application equipment

Get Ready for a Fight: Glyphosate Resistant Waterhemp and Palmer Amaranth are Here!

By: Josh McGinty (joshua.mcginty@ag.tamu.edu), Paul Baumann, and Pete Dotray, Dept. of Soil & Crop Sciences

You've all seen the horror stories about glyphosate (Roundup) resistant pigweed infestations in the Southeastern United States. Texas farmers largely dodged the bullet until 2005, when reports of resistance started to trickle in. Texas A&M AgriLife Extension and Research first confirmed glyphosate resistant common waterhemp in Central and Southeast Texas. This was followed by the confirmation of resistant Palmer amaranth on the Southern High Plains in 2010. Since that time, these researchers have conducted numerous field studies to provide recommendations for managing glyphosate resistant weeds as these populations have become more widespread. Given the fact that a single waterhemp or Palmer amaranth plant can shed 500,000 to 1 million seed, one weed left in the field is too many. What follows are recommendations for managing these weeds early in the season.

Often, the most competitive weeds are those that emerge prior to, or at the same time as the crop. These weeds are quite effective at competing for the same consumable environmental resources such as water, nutrients, and sunlight that the crop seedling needs for healthy growth. This is particularly important in cotton, which tends to have a slower growth rate as a seedling compared to other crops. This early-season competition is also highly detrimental to sorghum and corn seedlings as well. If these weeds are not controlled, significant yield losses can be expected. By controlling early-season weed infestations, the yield potential of the crop is protected. Additionally, emerged weeds are easier to control with post-emergence herbicides at this point. Later in the season, weeds can become "hardened-off" due to hot, dry conditions, and will be more difficult to control.

Prior to planting, emerged weeds should be controlled with preplant burndown herbicides or tillage. Due to widespread problems with glyphosate resistant weeds in Texas, consider using a tank mix partner when applying glyphosate as a burndown, especially if the field has a history of glyphosate resistant weeds. Adding a soil residual tank-mix partner to burndown applications will provide some insurance against early season weed competition

from later emerging weeds. Remember that rainfall, irrigation, or mechanical incorporation is required to move residual herbicides into the soil and "activate" them. When using soil residual products, keep in mind the planting interval and crop rotation restrictions of the product(s) used, if planting intentions change. Also, the plant-back residual activity may not start until after an inch of rainfall or irrigation.

As planting time approaches, the application of residual herbicides prior to, or at planting is critical. Figures 1 and 2 show the vast difference in weed density between an non-treated cotton plot and one that has received a pre-plant application of a residual herbicide. Ideally, these applications will overlap the pre-emergence weed control provided by pre-plant burndown applications that included a soil residual herbicide. This will extend pre-emergence weed control longer into the season, and lessen the pressure placed on post-emergence herbicides such as glyphosate, thus reducing the risk for developing glyphosate-resistant weed problems. If these programs still don't adequately control waterhemp or Palmer amaranth, there are many options for managing them with post-emergence (POST) products.

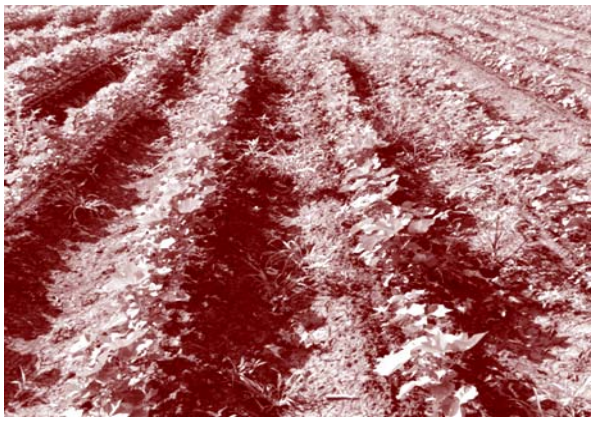


Figure 1. Non-treated cotton plot.

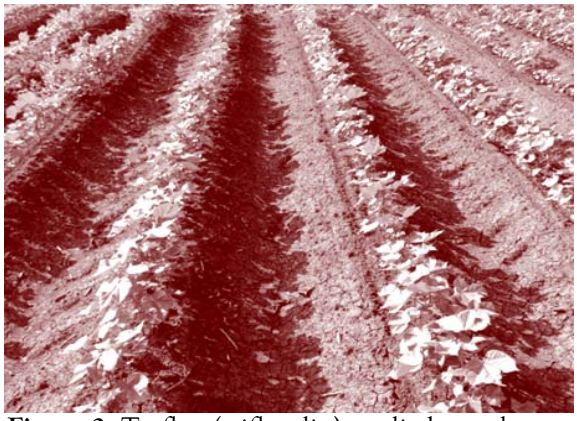


Figure 2. Treflan (trifluralin) applied pre-plant and incorporated into the soil.

The key to POST herbicide efficacy is treatment timing; most applications will require treatment of pigweeds species less than four inches in height. Many times, farmers have assumed that failures in control are due to application errors, and will follow up with another application of glyphosate. By the time that application has had a chance to work yet still doesn't control the weeds; it's too late for treatment with any other post-emergence herbicide. Because of these problems, it has become more important than ever to diligently scout fields for weed escapes and treat them with alternative products. Please understand, we are not recommending the elimination of glyphosate from your herbicide program, it is still very effective on many of our weed species. However, if glyphosate resistant weeds are a possibility on your farm, partner glyphosate with other pre-plant, pre-emergence, and post-emergence herbicides.

One last point, producers often attempt to reduce herbicide rates to cut costs. Reduced rates are more susceptible to failures in weed control and will often cost more in the long run. Always apply the full labelled rate for a given herbicide to reduce the risk of weed control failures.

For additional information on cotton herbicides and managing glyphosate resistant pigweeds go to:

http://varietytesting.tamu.edu/cotton/weeds/ESC-008WeedManagementinCotton.pdf

http://varietytesting.tamu.edu/cotton/weeds/4%20Step%20Program%20for%20Managing20Glyphosate%20Final.pdf

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DATES TO REMEMBER

USDA Farm Service Agency Deadlines

ARC/PLC–March 31st

Corn and Grain Sorghum Acreage Certification–April 15th

Cotton Acreage Certification–May 15th

Rice Acreage Certification–May 31st

Soybean Acreage Certification–June 15th

Private Pesticide Applicator Trainings

Wednesday, March 25th (8:00am registration; 8:30am class)

Friday, May 22nd (8:00am registration; 8:30am class)

Agricultural Symposium

Tuesday, April 14, 2015 (8:30am registration; 9:00am-2:00pm)

Row Crops Tour

Tuesday, June 16, 2015