

LOUISIANA CROPS NEWSLETTER

Inside this issue:

LSU AgCenter
Northeast Region
Rolling Crops Field
Tour – July 10,
2014, Winnsboro,
LA 1

Soybean Fungicide
Application Consid- 2
erations

Applicants Sought for
2014-2015 ASA 4
DuPont Young Lead-
er Program

Entomology Update 5

Upcoming Calendar 9

Contact Information 10



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Cotton, Corn, Soybeans, Sorghum, and Wheat



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LSU AgCenter Northeast Region Rolling Crops Field Tour

Thursday, July 10, 2014

Macon Ridge Research Station, Winnsboro, LA

Registration begins at 11:00 a.m., transport vans depart station at 11:30 a.m.

Variety Demonstration Plots in West Carroll, Richland & Franklin Parishes

Highlights on Soybean/Cotton/Corn Production & Pest Management

Crop Updates & NRCS soils trailer demonstration

Lunch provided, sponsored dinner & Door Prizes!!

PLEASE JOIN US!!

Contact Tara Smith at 318-435-2903 or Donnie Miller at 318-435-2157 for information concerning the field tour, or if you need an ADA accommodation for your participation. The LSU AgCenter provides equal opportunities in programs and employment.

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Rolling Crop Field Tour Tentative Agenda: July 10, 2014

11 a.m.	Registration, Macon Ridge Research Station
11:30	Load (transport vehicles) still checking on this, with bag lunch from Foxes Pizza
12:45	Arrive at Vendal Fairchild's Operation – Forest, LA (Turn East at Forest, Hwy. 582, about 2.5 miles down) Soybean Varieties Other??
1:45	Load transport vehicles and travel
2:20	Arrive at Scott Crawford's Operation – Rayville, LA (3 miles south of Rayville on the east side of US 425.) Cotton Varieties Other??
3:20	Load Transport vehicles and travel
4:20	Arrive at Darren Herrington's Operation (off of Hwy 4. In Winnsboro) Corn Varieties Other??
5:20	Return to Macon Ridge Research Station
6:00 -6:30	Other topics to be covered briefly BMP's – NRCS / AgCenter
6:30	Evening Meal and Closing Comments

Soybean Fungicide Application Considerations

Clayton Hollier, Professor, Department of Plant Pathology and Crop Physiology

Trey Price, Assistant Professor, Macon Ridge Research Station

Ronnie Levy, Assistant Professor, Soybean Specialist, Dean Lee Research Station

Lately we have received many questions concerning fungicides used in soybean disease management and determining soybean growth stages for timing applications. Hopefully, the information below will help answer these questions.

Fungicide groups having a preventative effect on disease include the strobilurins (Group 11) and SDHIs (Group 7). Ideally, these products should be applied prior to disease development. Triazoles (Group 3) and chlorothalonil (Group M5) products have curative effects on diseases, halting or slowing existing disease development. Thiophanate-methyl (Group 1) is described as having both preventative and curative effects.

Many fungicides are labeled for use in soybean. Basically, producers have five chemistry types from which to choose based on mode-of-action. The Group 11 fungicides, or strobilurins (“strobies”), include but are not limited to products such as Aproach, Quadris, Headline, and Gem. The Group 7 fungicides, or SDHIs, include Endura, Vertisan, Priaxor, and others. Group 3 fungicides, or triazoles, include products such as: Domark, Proline, and Topguard. A single Group 1 fungicide, thiophanate-methyl, is available to producers in several products (Topsin, Incognito, and Cercobin). A Group M5 fungicide, chlorothalonil, is available to producers in three products: Bravo, Echo, and Equus. All of the above-mentioned chemistry types are available in a number of premixes containing two different modes-of-action. **It is important to note that fungicides in the same group have the same mode of action. Therefore, fungicides in the same group should not be used back-to-back or considered as an alternative for another fungicide of the same group.**

The strobilurins (Group 11), SDHIs (Group 7), and thiophanate-methyl (Group 1) have very specific modes-of-action and should be used conservatively. These products can select for resistant pathogen populations very quickly. In fact, widespread resistance to strobilurin fungicides and thiophanate-methyl has been documented in the *Cercospora* leaf blight pathogen throughout soybean-producing areas in Louisiana. Concurrently, a decline in efficacy of strobilurins and thiophanate-methyl on *Cercospora* leaf blight has been observed over the past 10-15 years. Additionally, strobilurin resistance has been confirmed in the frogeye leaf spot pathogen in several parishes throughout the state. Additional research is needed to determine the extent of this resistance. Although strobilurin resistance has been discovered in the above pathogens, this fungicide type may still be effective in areas where the pathogen population is not resistant or on other pathogens causing diseases such as aerial blight, brown spot, pod and stem blight, anthracnose, among others.

Appropriate application timing also is an important consideration with fungicide applications to soybean. **An automatic fungicide application at or near R1 is not currently recommended.** Ongoing research at LSU AgCenter may or may not result in modification of these recommendations in the future. According to results from many years of LSU research trials, fungicides have proven most efficacious when applied near the R3 stage. A second application may be considered at R5 as well. Please refer to the list below on how to determine soybean growth stages.

V_x = Vegetative growth stages (prior to flowering). The number following indicates how many trifoliates are present.

R1 = 1st flower (one flower anywhere on the plant)

R2 = Full bloom (open flower on one of the upper two nodes)

R3 = Beginning pod (3/16" pod on one of the upper four nodes)

R4 = Full pod (3/4" pod on one of the upper four nodes)

R5 = Beginning seed (seed visible and 1/8" long in one pod on the upper four nodes)

R6 = Full seed (seeds completely fill one pod on the upper four nodes)

R7 = Beginning maturity (one mature pod in upper four nodes)

R8 = Full maturity (the majority of the pods on the plant are mature)

It is important to keep in mind that on indeterminate varieties (Group 4 and some Group 5) flowering begins at the bottom of the plant and progresses upwards. Therefore, the more mature pods will be located near the bottom of the plant. For determinate varieties, flowering begins in the middle of the plant and progresses upwards and downwards almost simultaneously. In this case, relative maturity of pods will be similar throughout the plant. Nevertheless, **only consider the upper four nodes while staging soybean plants.**

In addition to application timing, coverage and spray volume also are key components. Proper nozzle selection to obtain smaller droplet sizes will enhance coverage and, in turn, efficacy. Most fungicide labels recommend a minimum of 10 gallons/A spray volume by ground and 5 gallons/A by air. Finally, avoid unnecessary or excessive applications of fungicides, and always follow label directions for the best results. For more information visit www.lsuagcenter.com or contact your local county agent, specialist, or nearest research station.

Applicants Sought for 2014-2015 ASA DuPont Young Leader Program

The American Soybean Association (ASA) and DuPont are seeking applicants for the 2015 ASA DuPont Young Leader Program. For more than 30 years, the ASA DuPont Young Leader program has identified and developed grower leaders that truly shape the future of agriculture.

“The ASA DuPont Young Leader program has shaped not only the soybean industry but all of agriculture,” said Ray Gaesser (Iowa), ASA President. “The program provides industry leading training in an environment that fosters collaboration between farmers throughout the U.S. Participants not

only gain ‘real-world’ experience but build lifetime friendships. When the program started more than

30 years ago, it was a game changer, recognizing the importance of both women and young people in agriculture. We’re grateful to DuPont for their continuing support of the program.”

The ASA DuPont Young Leader program is a challenging and educational two-part training program. Phase I of the training will take place at the DuPont Pioneer headquarters in Johnston, Iowa, Nov. 18-21, 2014. The program continues Feb. 24-28, 2015 in Phoenix, Ariz., with training held in conjunction with the 20th annual Commodity Classic Convention and Trade Show.

The ASA DuPont Young Leader program offers the opportunity for participants to strengthen their natural leadership skills, expand their agricultural knowledge and develop strong peer relationships with other soybean growers from across the country.

Applications are being accepted online now! Interested applicants should click [here](#) for additional program information and to apply.

ASA, its 26 state affiliates including the Grain Farmers of Ontario and DuPont will work together to identify the top producers to represent their state as part of this program. One couple or individual per state will be selected to participate.

ASA represents all U.S. soybean farmers on domestic and international issues of importance to the soybean industry. ASA’s advocacy efforts are made possible through voluntary farmer membership by farmers in 30 states where soybeans are grown.

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Access this release online at SoyGrowers.com.

Entomology Update

Sebe Brown and David Kerns: LSU AgCenter Entomologists

Cotton

With Louisiana experiencing 90 degree temperatures and adequate moisture, much of the cotton has grown out of the thrips susceptibility stage (1-4 leaf cotton) and is beginning to put on squares. Square initiation results in an increased presence of a diverse cohort of plant bugs and below is an adult and immature guide to aid in identification of plant bugs in cotton.

Tarnished Plant Bug



Tarnished Plant Bug Adult: LSU AgCenter



Tarnished Plant Bug Nymph: LSU AgCenter

Tarnished plant bugs (TPB) are 1/4 inch long insects that vary in color from yellowish brown to green with black markings and a conspicuous triangle located on the dorsal (back) side. Nymphs resemble the adults in general body shape and color but do not have wings. Tarnished plant bugs damage cotton from pinhead square to final boll set. Larger square damage affecting anthers, stigma, and styles can cause fertilization problems and fruit shed. The Louisiana threshold for bloom to harvest is 2-3 TPB per 5 ft of black drop cloth, 10 TPB per 100 or sweeps or 10% dirty squares. Pre-bloom threshold levels are 10 -25 TPB per 100 sweeps.

Cotton Fleahopper



Cotton Fleahopper Adult: LSU AgCenter



Cotton Fleahopper Nymph: LSU AgCenter

Fleahoppers are small, 1/8 inch, insects that have an oval shaped, elongated body. These insects are yellow to green and resemble other Hemipteran true bugs and essentially look like a very small, green TPB. However, unlike TPB nymphs, fleahopper nymphs have dark spots on the hind legs.

Cotton should be scouted for fleahoppers the first three weeks of squaring. Detection can be difficult due to the flighty nature of these insects. Simply casting a shadow over the pest will often make them take flight. Louisiana pre-bloom thresholds for fleahoppers are 10 to 25 insects per 100 sweeps with pre-bloom treatment levels adjusted to maintain between 70 and 85% first position square retention.

However, scouting small cotton with a sweep net is difficult and produces questionable results. Additionally, detecting small fleahopper nymphs in a sweep net is difficult as well. A better technique is to simply examine the terminal of plants watching for adults taking flight and then examining the terminal very closely for small nymphs. Morning is the best time to scout for fleahoppers and if the wind is blowing, they take shelter in the plant canopy.

Clouded Plant Bug



Clouded Plant Bug Adult: University of Tennessee



Clouded Plant Bug Nymph: University of Tennessee

Clouded plant bugs (CPB) are 3/8 inch long insects that are characterized by a thickened first antennal segment and hind legs that are noticeably larger than the first two pairs. Adult CPB are generally brown in color with mottled patches of black, yellow or white. Nymphs are often greenish-yellow in color possessing red and white horizontally striped antennae. Larger nymphs can also be identified by a dark spot on the dorsal side of the abdomen. Clouded plant bugs are an occasional pest in Louisiana cotton with pre-bloom and bloom threshold levels being the same for tarnished plant bug but each CPB should counted as an equivalent to 1.5 TPB.

Injury by CPB is similar to TPB with square abscission, bloom injury and boll feeding (cat-facing) occurring mid to late season. As with other plant bugs, monitoring square retention and sweep net sampling prior to bloom should be used to determine levels of CPB infestations. Sampling for plant bugs from bloom until harvest is aided by the use of a drop cloth because this technique is more suitable for detecting nymphs.

Rapid Plant Bug



Rapid Plant Bug Adult: LSU AgCenter



Rapid Plant Bug Nymph: LSU AgCenter

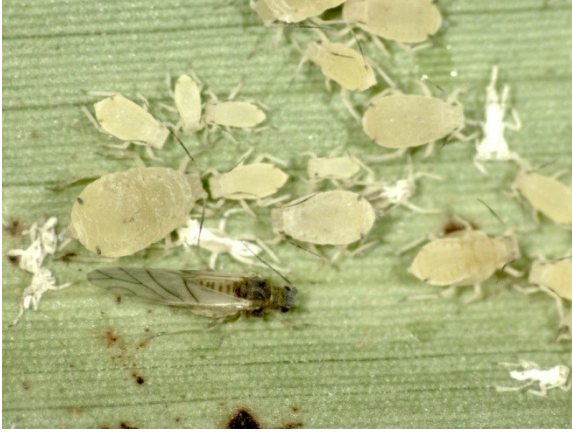
Rapid plant bugs (RPB) are 3/10 inch long insects that occasionally infest cotton in Louisiana. Adults are often orange-black to yellow-black in color and are larger than other species of plant bugs encountered while sampling. Nymphs are often green with a red or yellow tint and have a dark band across the abdomen. The thorax and abdomen of immature RPBs lack dark spots that are typically found on TPB nymphs.

Injury by the RPB is often sporadic and may be confused with other plant bugs. However, due to this pest's larger size, injury levels can be significantly greater than other species of plant bugs encountered in cotton. Therefore, pre-bloom and bloom RPB threshold levels should be the same for tarnished plant bug but each RPB should be counted as an equivalent to 2 TPB.

Grain Sorghum

Infestations of sugarcane aphids in boot to heading grain sorghum are increasing in Louisiana. **Many of these populations start off small and exponentially increase in a span of 5 to 7 days.** Pyrethroid applications for midge control can reduce natural enemy numbers allowing sugarcane aphids to reach damaging numbers faster. Honey dew produced by sugarcane aphid feeding will give the crop a glossy appearance and large accumulations will often result in sooty mold growth and harvesting issues later season.

Sugarcane aphids are difficult to control with currently labelled insecticides; however, Louisiana was granted a section 18 emergency exemption for the use of Transform 50WG for the 2014 production season. Transform applications should be initiated before grain sorghum becomes heavily infested and producers in Texas are making applications at 30% infested plants with 100 to 250 aphids per leaf present. Use lower aphid numbers with increasing stress due to plant water deficit. This treatment threshold appears to be working for Texas growers; however, these recommendations are not supported by university research due to the recent introduction of this pest to grain sorghum in the United States. Transform applications of 1 oz/acre should be used on medium to high sugarcane aphid populations with the largest gallonage per acre (GPA) feasible for applicators (5 GPA by air or 20 GPA by ground). If 1 ounce applications of Transform are not providing adequate control the rate should be increased to 1.5 oz/acre.



Sugarcane aphid infestations on grain sorghum: LSU AgCenter



Sugarcane aphid injury to pre-boot sorghum: LSU AgCenter

Soybean

Insect issues in soybeans have been relatively minor in the previous weeks since the last newsletter. Many of the fields that were infested with grass strain fall armyworms and corn earworms have either cycled out to other hosts or were controlled with removing weed hosts or insecticide applications. However, with the majority of the crop reaching bloom, producers and consultants should regularly scout for infestations of corn earworm.

Corn earworm larvae are most often found in flowering (R1-R2) to early pod development (R3-R5) soybeans. Corn earworms may occur in large numbers when flowers are present and can consume all of the fruiting structures if left unchecked. Infestations are uncommon in late pod development; however, limited host plants can expose fields to infestations throughout soybean reproductive stages. Corn earworms are unlike other worm pests in soybeans with damage concentrated directly on harvestable structures.

Continue to watch for grass strain fall armyworms moving from herbicide treated grass onto soybeans. Unlike other fall armyworms, this strain can easily be controlled with pyrethroids.

Upcoming Calendar of Events



July 8, Vermillion Parish Field Day.

July 10, Northeast Region Field Crop Tour at the Macon Ridge Research Station, Winnsboro.

July 16, Sugarcane Field Day at the Sugar Research Station, St. Gabriel.

July 17, Dean Lee Research and Extension Center Field Day, Alexandria.

July 17, NE LA Rice Field Day.

July 18, Morehouse Parish Field Day.

July 22, St. Landry Parish Field Day.

Aug. 7, Sweet Potato Field Day at the Sweet Potato Research Station, Chase.

Oct. 9, Landscape Horticulture Field Day at the Hammond Research Station, Hammond.

For additional calendar information on LSU AgCenter Parish and Statewide events, visit our website at www.lsuagcenter.com/calendar

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<http://louisianacrops.com>

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Louisiana State University Agricultural Center

Louisiana Agricultural Experiment Station

Louisiana Cooperative Extension Service

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