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New Issue in Soybean Diseases: Strobilurin Resistant Frogeye Leaf Spot

By: Dr. Travis Faske, Plant Pathologist, University of Arkansas Cooperative Extension Service

Soybean growers in the state have relied on fungicides like Headline, Quadris, Evito, Gem, etc. to control frogeye leaf spot (FLS). All these fungicides contain the same mode of action and collectively referred to as strobilurin fungicides. In 2012, a new strain of the fungus that is resistant to all strobilurin fungicides was confirmed in nine Arkansas counties (Clay, Lawrence, Jackson, Poinsett, St. Francis, Phillips, Desha, Drew, and Chicot). Therefore, selecting the right fungicide chemistry will be an important consideration when managing FLS in 2013.

A strobilurin-alone program will not effectively manage FLS where the new strain was confirmed or where strobilurin failures were observed in

2012. A significant population of these new fungal strains will likely occur in new areas where soybeans are continuously cropped and a strobilurin-alone program has been used to control FLS and other fungal diseases. These new fungal strains can be managed with triazoles fungicides (alone or as a mixture) or resistant soybean varieties. Additionally, tillage and one year crop rotation can reduce the overwinter pathogen survival on crop residue. Triazole-resistance to fungi similar to FLS is not new therefore, applying foliar fungicides only to control plant diseases will prolong their usefulness in row crop production.



Leaf spots on soybean caused by frogeye leaf spot.



Arkansas Crop Protection Association Newsletter

ACPA

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What does it take to grow 100 bushel soybean?

By: Dr. Jeremy Ross, Soybean Specialist
University of Arkansas, Division of Agriculture Cooperative Extension Service

Every year I get the question, what does it take to grow a 100 bushel soybean crop? The short answer is a lot of inputs and a little luck. Looking at research data and observations from the Grow for the Green (\$\$\$\$) Yield Challenge conducted by the Arkansas Soybean Association, planting date is one of the most critical factors affecting yield. When the average yield for the top four entries in the Early Season and Full Season Yield Challenge were compared, the Early Season fields yielded 16 and 13 bushels/ac more during 2011 and 2012, respectively.

To maximize soybean yield in Arkansas, irrigation is probably the second biggest input required. Irrigation not only provides the soybean plant with supplemental water, it also cools the plant canopy during the hot summer days during critical times during reproduction. For the last two years, the winners of the Grow for the

Green (\$\$\$\$) have irrigated between 6 and 15 times during the growing season.

The decision that requires the most thought in this whole process is variety selection. Many seed companies have high yielding varieties that will perform well in different environments. Choose the soybean variety that has the agronomic characteristics, herbicide and disease packages that fit into the environment of a particular field.

The next challenge is the physical properties of the soil and fertility levels within the field. Good internal drainage is essential for high yielding soybean crop. This will provide the soybean plant root system the proper mix of water and air within the soil. Also, soil fertility levels should be optimum to high, with additional fertilizer applied to maximize yields. Several studies have indicated that additional foliar fertilizer products do not provide any additional yield as long as the

proper recommended dry fertilizer is applied.

Another requirement to maximize soybean yields is to keep the soybean plants pest free. It doesn't matter if it is weeds, nematodes, insects, or diseases, these problems need to be controlled in a timely manner. Walking the fields and scouting on a weekly basis for these problems, and applying the proper chemical and rate is the best way to maximize soybean yield. With some help from Mother Nature, some well laid plans, and a little luck, a 100 bushel/acre soybean field can be achieved.



“Planting date and irrigation are important factors in producing high yields”

Plan to Attend the Arkansas Crop Protection Association Research Conference Dec. 2-3, 2013

The ACPA research conference will be December 2-3, 2013 in Fayetteville at the Guesthouse International Hotel (formerly the Clarion Inn). The conference is a great opportunity to gain educational points and at the same time listen to new topics not normally discussed in meetings throughout the state. Last year graduate student con-

test participants discussed a wide variety of subjects including high yield soybean production, cotton herbicides, rice water weevil control and a wide array of other subjects. In addition, you will be listening to the future leaders of agriculture speak. If you are interested in presenting at the meeting, contact Dr. Jarod Harke concerning the time avail-

able for presentations at the meeting. For room reservations call the Guesthouse International directly. Please mention that you are with the Arkansas Crop Protection Association Research Meeting.

Inside this issue:

<i>Abandoned Pesticide Program Success</i>	2
<i>New 2-4 D Regulation in NW Arkansas</i>	2
<i>2014 Arkansas Crop Management</i>	2
<i>Dow AgroSciences Transform Registered</i>	3
<i>Soybean Association Graduate Fellowship</i>	3
<i>EPA White Paper on Honey Bees</i>	3
<i>Strobilurin Resistant Frogeye in Soybean</i>	4

- Become a sustaining member of ACPA. Contact Don Johnson at : drjohnson@centurytel.net
- Meetings:
- Research Conference in Fayetteville, December 2-3, 2013.
- ACMC meeting next year January 21-23, 2014

Abandoned Pesticide Program Collect Old Ag Chemicals

by: Jason Robertson, Assistant Director Pesticide Division, Arkansas State Plant Board



Old chemicals were collected at central locations in counties throughout the state.

The Arkansas State Plant Board in cooperation with the Arkansas Abandoned Pesticide Advisory Board has recently announced the collection of over 1 million pounds of agricultural pesticides from Arkansas Farmers. The Abandoned Pesticide Advisory Board is made up of representatives from the Arkansas State Plant Board, University of Arkansas Cooperative Extension, Arkansas Farm Bureau, Arkansas Department of Environmental Quality, and the Arkansas Natural Resources Commission. Pesticide collection events are conducted twice per year and provide Arkansas farmers a free and

anonymous opportunity to properly dispose of outdated or unwanted agricultural pesticides. The County Judges, Cooperative Extension Agents, and County Farm Bureau Offices provide localized advertising prior to the collection events. Funding for this program is provided by a fee attached to the registration of agricultural pesticides with the Arkansas State Plant Board. For more information visit www.plantboard.arkansas.gov.

New Regulation on 2-4 D Usage in Counties of NorthWest Arkansas

“Rice levee spraying allowed in certain counties in NorthWest Arkansas west of Crowley’s ridge”

ATTACHMENT I

The Pesticide Committee of the AR State Plant Board make the following change to Section (X) paragraph (D)(2)(e) of the Arkansas Regulations On Pesticide Classification:

e. Rice levee spraying shall not require a permit in Cross, Poinsett, Clay, Greene, Craighead, Crittenden, St. Francis, Lee, Phillips, and Mississippi counties west of the approxi-

mate north-south center line of Crowley’s Ridge. However, paragraphs b(i) through b(v) and paragraph d above must be complied with (Plant Board Regulations). The records for each application must be maintained by the producer for a period of three years and be made available to Arkansas Plant Board upon request by a Plant Board representative. The application device must (1) generate a spray with a droplet spectrum such

that no more than 10 % of the spray droplets are smaller than 300 microns, (2) the boom width may not exceed 10 feet, (3) during application the spray nozzle height may not exceed 30 inches above the top of the levee, and (4) the spray vehicle may not exceed 8 miles per hour. No 2,4 - D Esters may be used. Review all labels before using a pesticide.

2014 Arkansas Crop Management Conference to Address Current Research Topics

By: Scott Greenwalt, ACMC Program Chairman and President Elect, ACPA



“ACMC should be an interesting venue considering the growing season we are experiencing”.

The 2014 ACMC should be an interesting venue considering the growing season we are experiencing. The 2013 crop is all over the board with various planting dates in every crop and untimely applications of pesticides and fertilizer. The early below average temperatures and above average precipitation have caused us to put on our thinking caps and dig deep into our resources to help producers make

the best yield possible amidst all the adversity. This is not necessarily a bad thing, however. It helps keep our minds sharp and allows continued learning opportunities to better diversify our role in the agriculture industry. With the recent attention on resistant weeds, consultants and industry representatives alike have been challenged to put together strategic plans to combat these situations. We must

continue to polish our skills and stay open to solutions that may lie outside the box. The 2014 meeting will provide ample opportunity to further progress our positions in agriculture. Mark your calendars to attend the ACMC January 21-23, 2014.

Dow AgroSciences Insecticide Transform Receives Registration

Dow AgroSciences announced recently that it has received registration of Transform WG insecticide. Many cotton growers feel they’ve been waging war against tarnished plant bug (Lygus species). The distinctive new chemistry found in Transform gives cotton growers a new weapon in their control arsenal by providing outstanding and sustainable control of tarnished plant bug, the No. 1 insect in cotton production. The product attributes found in Transform will help protect cotton yield and increase profit potential. They include:

- Effective control of sap-feeding insects, such as

tarnished plant bug and aphids

- Designated by the Insecticide Resistance Action Committee as the sole member of a new subgroup, 4C
- Maintains populations of most beneficial insects while not flaring aphids and spidermites
- Excellent residual control
- Excellent knockdown of tarnished plant bug populations
- Effective at very low use rate

Transform was approved in the Midsouth last summer under section 18 emergency exemption and can be applied aerially or by ground.

“We’ve been evaluating Transform for the last several years and it has been very effective in controlling plant bugs,” says Dr. Gus Lorenz, entomologist from the University of Arkansas. “Transform offers the kind of plant bug control that will allow cotton growers to maximize their yields and profit potential.” For more information contact Kyle Colwell or your local Dow representative.



Dr. Gus Lorenz says: Transform is very effective for controlling plant bugs.

Ben Thrash is Awarded the Soybean Association Graduate Fellowship For 2013

Benjamin C. Thrash has received the Arkansas Soybean Association Graduate Fellowship for 2013. Ben is working towards a MS degree at the University of Arkansas Fayetteville under the direction of Dr. Gus Lorenz and expects to graduate May 2014. The topic of his studies is green stinkbug damage thresholds on the edible Edamame soybean that is growing in popularity in

Arkansas as a crop. Ben is from Conway where his family farms soybeans, corn, wheat and rice. His long term goals include pursuing a PhD and he wants to conduct applied research with a University or Industry program. Congratulations to Ben on receiving the Soybean Association honor.



“Goals include pursuing a PhD and working in applied research”.

EPA White Paper Proposes New Risk Assessment Process For Honey Bees

Honey bees have been in the national news this year regarding the hive decline syndrome. Hive decline is the loss of large number of bees in hives that often results in hive loss. USDA scientists have listed many causes of hive mortality including diseases, mites and lack of food. However, some attention has been given to articles listing neonicotinoid insecticides especially seed treatments as potential causes of

hive decline. Popular press articles have suggested that drift from talc used during planting is contaminated by seed treatment pesticides. As a result of these suggestions and concerns, EPA has published a white paper on proposed changes in the assessment process for pesticides that may pose a threat to honey bees. The white paper proposes extensive changes in the registration review process.



“Honey bees are important pollinators of our crops”