

IPM NEWSLETTER

Update for Field Crops and Their Pests

No. 17

July 23, 2009

Past newsletters and other information can be found at UTCrops.com

Bookmarks: [Soybean diseases](#) [Weed control](#) [Insect stuff](#) [Farm management](#) [Moth traps](#)

Tips for Use of Foliar Fungicides for Soybean Diseases (Melvin Newman, Extension Professor)

Many soybean producers are now spraying their soybeans with a foliar fungicide. The best time to spray for late season diseases is at the R3 stage of growth. Under heavy disease conditions, and when soybean prices are really good, a second application might be beneficial at the R5 growth stage. The recent rains have made prospects look good for excellent yields, but that good moisture also creates the conditions for more late-season foliar diseases.

Moisture is the number one factor needed for disease development, but along with moisture, continuous soybeans, susceptible varieties and low soil fertility (especially low potassium and low pH) also increase the chances for yield loss from disease. Producers should consider spraying fields that are subject to these conditions. However, if there is little hope for a good yield (at least 30 + bushels per acre) spraying a fungicide might not be as economical as one that has a high yield potential.



Frogeye Leaf Spot, severe symptoms

Fungicide coverage of as many leaves and stems as possible is essential for good foliar disease control. If spraying with ground equipment, use at least 15 to 20 gallons of water per acre along with a fine droplet size (about 250 to 300 microns) and high pressure. If spraying with an airplane use at least 5 gallons water per acre and fly 6 to 12 feet above the soybean canopy.

Soybean rust is not a threat in Tennessee at this time. Therefore, all that is needed for control of late season diseases is an EPA approved Strobilurin fungicide such as Headline or Quadris with a surfactant such as NIS or a COC. A premix or tank mix of a Strobilurin plus a Triazole fungicide is also effective as long as there is an adequate amount of Strobilurin in the mix. When making a second application, it is wise to use a tank mix or a premix of Strobilurin plus a Triazole. This would help reduce the chances of a built-up of resistant fungi to the Strobilurin fungicides and help reduce the risk of soybean rust. For real-time updates about how far soybean rust has spread, see sbr.ipmpipe.net.

Using just a Triazole for late season diseases such as Brown Spot, Frogeye Leaf Spot and Anthracnose would not be the best choice for maximum control. Basically, the Triazoles are best used for soybean rust control. Triazoles are necessary when there is a high risk for soybean rust. The risk of rust is low

at this time. We are continuing to monitor the rust situation by scouting sentinel plots and checking spore traps. For more information on soybean diseases, disease resistant varieties and fungicides check the **utcrofs.com** web site under soybean diseases.

Weed Control (Larry Steckel, Weed Specialist)

There has been some talk circulating that UT has some data that would indicate tank mixing glyphosate in with a fungicide like Headline will reduce soybean yield by 10 bushels/acre. I do not know where this 10 bushels number came from but it was not from anyone here on the 2nd floor at Jackson. What I do know is that if you are following Dr. Newman's timing recommendation of R3 for a fungicide application it is too late to apply the glyphosate. The label on applying Roundup on RR soybeans states it may be applied post emergence to soybeans from cracking through full bloom (R2). Moreover I cannot think of a timing where applying a herbicide with a fungicide could ever be timed to control both pest complexes well in soybean. It would be either way too early for a fungicide application or way too late for a herbicide application.

A few folks have asked about controlling hophornbeam copperleaf and prickly sida (teaweed) in cotton. These two weeds typically germinate in mid-June through August. Herbicides commonly used over the top or post direct at this time (glyphosate, Envoke and Staple) are typically not too effective on these two species, in part because it is hard to get coverage. The best control measure is to add Aim or Valor in with glyphosate post direct and/or bump up the rate of glyphosate. Another good option would be a hooded Ignite application.

It is hard to believe as we have some cotton that just recently started to bloom but we will quickly run into short recrop intervals for some common hooded applications. Please keep in mind there are just a few commonly used layby herbicides that have a recrop interval short enough where sowing wheat this fall would still be on label. The herbicides are glyphosate (anytime), Aim (anytime), Envoke (3 months), Ignite (70 days), Suprend (3 months) and Valor (30 days). Two of these herbicides, Envoke and Suprend, come in just under the wire as most growers like to have their wheat planted by early October. Listed below are the wheat recrop intervals for most of the popular layby herbicides.

<u>Herbicide</u>	<u>Wheat Recrop</u>
Aim	anytime
Caparol	no fall recrop (wheat grown for grain)
Cotoran	6 months
Direx	1 year
Dual Magnum	4.5 months
Envoke	3 months
Glyphosate	anytime
Goal	10 months
Ignite	70 days
Layby Pro (Diuron + Linuron)	4 months
Staple	4 months
Suprend (Envoke + Caparol)	3 months
Valor	30 days

Insect Considerations (Scott Stewart, IPM Specialist)

Cotton. Generally all crops look great, but it is concerning that some cotton fields are just now starting to bloom and the cool weather is not helping us catch up. This cool and wet weather favors plant bugs but it has been a quiet week. Calls from several areas indicate a lull in plant bug pressure, but I am seeing a steady increase of immature plant bugs in many fields if they were not recently treated. On the upside, stink bug populations are lower than normal, this is not good weather if you are a spider mite, and the bollworm flight has not yet kicked off in earnest. I still expect an above average bollworm flight starting this coming week and really picking up the week after. The cooler weather may slow it down a bit.



Pictured – Bollworm egg on leaf

Soybean. As in cotton, stink bug populations are generally lagging behind normal but so are many soybean fields. Corn earworm (a.k.a. bollworm) can be a serious pest of soybean beginning at R2 and continuing through flowering. I've had no reports of problems but stay alert for corn earworm, especially in wide-row spacings and later maturing fields. Corn earworms tend to be more common in open canopies. The rainfall in the past two weeks will close the canopy of many fields and this should help. Use a threshold of 36 corn earworm larvae per 100 sweeps. *Reminder* – R3 thru R6 is crunch time for insect control so concentrate your scouting efforts during this window. Check fields every 7-10 days.



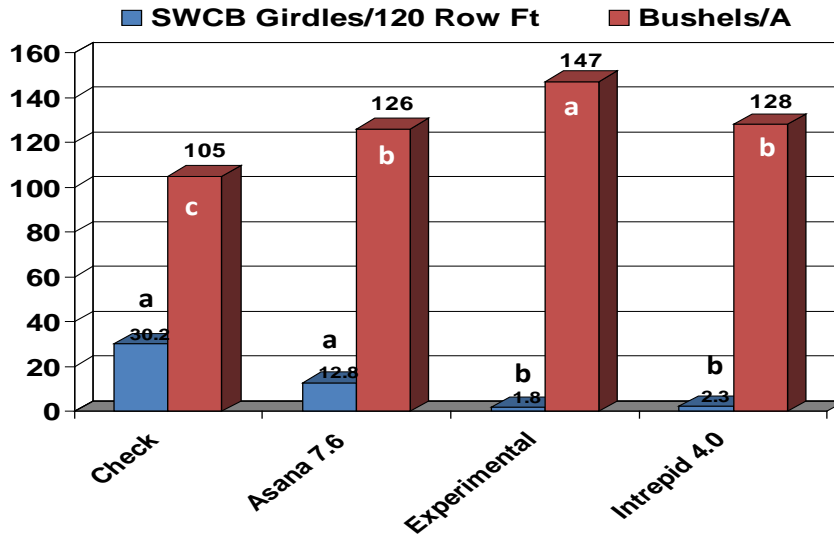
Pictured – Hatching green stink bug egg mass

Corn. The southwestern corn borer (SWCB) flight continues in the north but is showing signs of slowing in some places. The potential benefits to making an insecticide application will diminish as the corn continues to mature. In other words, get busy if you intend to spray your non-Bt corn for corn borers. You are already late in areas where the moth flight peaked last week. Only early planted fields are currently mature enough to be relatively safe from corn borers. Any late maturing non-Bt corn in the vicinity of high moth counts are at especially high risk, and we have many fields that are relatively late maturing. Anything less than completely brown-silked corn is quite late, and this late corn is most attractive to moths and sensitive to infestation. *Reminder* – corn borers are not a concern in Bt corn.

Below are yield data from a test last year at the WTREC in Jackson. This test was against average SWCB pressure (at least average for areas with significant acreages of non-Bt corn). As you can see, one insecticide application made on July 16 returned an average of 21-42 bushels depending upon the treatment. All treatments also reduced stalk tunneling by larvae (as reflected by the reduced girdling, blue bars). However, notice that this corn was fairly late planted (May 1). You would not expect as dramatic of a yield response on early planted corn. The point is that it can pay to make a well timed insecticide application to non-Bt corn for control of SWCB.

Non-Bt Corn Insecticide Test

Application July 16, 2008, Corn Planted May 1



Regional Report (Hayden E. “Gene” Miles, Area Extension Specialist, Northwest Tennessee)

All areas are reporting some rainfall from either the latter part of last week or this week. Growth stages of cotton fields being reported by producers, IPM scouts and consultants range from 12th node to bloom stage. More mature cotton plants in the Delta area are averaging 11st positions and have 90 percent 1st position fruit retention. Plant bug numbers being reported this week by IPM scouts, consultants and producers range up to 34/100 sweeps and/or 2.6 per 6 row feet. Square retention ranges from 72 to 94 percent. Private consultants are reporting seeing a few bollworm moths in cotton fields this week. When checking for percent bollworm/budworm damage in Bt and conventional cotton, 100 fruiting bodies (squares, blooms and bolls) should be observed from top, middle and lower areas of the plants per 20 to 40 acres. Also, number of bollworm/budworms should be determined by looking in top twelve inches of plant (terminals) in 100 plants per field. In Bt cotton, make note of how many larvae are less than ¼ inch. Small larvae should generally not be considered when making a treatment decision, giving them time to feed on Bt toxin. Also, one private consultant is reporting having seen a few beet armyworms in his sweep net this week. Beet armyworms are typically green and have a characteristic black dot present on either side of larvae on the second segment behind the head. Also, spider mites seem to be increasing and some areas are being treated with recommended miticides for the second time. Bidrin at recommended rates is doing a good job in controlling above economic threshold levels of combinations of plant bugs and stink bugs. The high beneficial count being reported this week is 10.2 per 6 row feet.

Farm Management (Chuck Danehower, Area Specialist - Farm Management). The **August 14** deadline for Average Crop Revenue Election (ACRE) sign up is fast approaching. Producers should evaluate this program on a farm by farm basis. It does have the potential to have positive implications for Tennessee producers. Grain and soybean farmers may want to look closely at enrolling. It does not

look to favor cotton producers, particularly with the cotton loan program being an important marketing tool. More information on ACRE can be found at the FSA website - www.fsa.usda.gov/dcp.

Don't let the appearance of complexity scare you away from exploring this program. It is similar to GRIP crop insurance. The state has to have a loss and your farm has to have a loss. If both have losses then a payment is made based on the state loss. The payment is capped at 25% of the state guarantee. Most of the **wheat** data is in and I think it is reasonable to assume that there will be a **wheat ACRE payment**. These are the current calculations for 2009 wheat: 55.3 (TN benchmark state yield) X \$6.63 (National Average Market Price) = \$366.64 X .9 = \$329.98 state guarantee. The latest projected 2009 wheat yield was 54 bushels and the latest 2009/10 projected national average market price is \$5.30 bushel. If those numbers are close then the actual state revenue for wheat would be \$286.20. Subtract \$286.20 from \$329.98 and the loss is \$43.78, which would be multiplied by .833 to = **\$36.47** per planted and considered planted acre X the farm productivity index factor. The individual farm trigger would also have to be met. If this is a farm that just has a wheat and soybean base, and will stay in grains or soybeans then ACRE may be a viable alternative to the current DCP program. However, if the farm has a high percentage cotton base or has part of it in cotton or may have so in the future, then it probably would be better to stay in the current DCP program. What makes the decision difficult is it is impossible to accurately project future yields and prices.

The table below has breakeven calculation on what the state average yield would have to be less than to generate an ACRE payment. This is based on the July 10 USDA price projections. The guarantee prices are projected except for wheat which is the final price. Divide the state guarantee by the 09/10 projected price. For example, if the national average corn price for the 09/10 marketing year is \$3.75 bushel, then if the 2009 state average is less than 123 bu./acre, there would be an ACRE payment. If prices drop below the current projection, then the breakeven state yield goes up. At this time, there is a good possibility that average prices will drop further. On the other side, with all the recent moisture, there is a good possibility that the state will achieve average to above average yields. Remember, along with the state having a loss, the farm's actual revenue has to be less than the farm's guarantee before a payment is made. The below information would be applicable to 2009 only. Next year would be different.

Crop	Benchmark Yield	Guarantee Price	State \$/acre Guarantee	09/10 USDA Projected Price	09 Breakeven State Yield
Corn	124	4.13 bu.	\$461	\$3.75 bu.	123
Cotton	878	\$ 0.542 lb.	\$428	\$0.54 lb.	793
Soybeans	36	\$10.05 bu.	\$326	\$9.30 bu.	35
Wheat	55.3	\$6.63	\$330	\$5.30 bu.	62

Producers with an interest in ACRE should visit their FSA office to see what information will be required. If we can assist you in evaluating ACRE, please contact your local Extension office or Area Farm Management Specialist.

Tennessee Pheromone Moth Trapping Summary - Trapping efforts are funded in large part by the Tennessee Cotton Incorporated State Support Program. Thanks to the County Extension Agents who are also running southwestern corn borer traps.

Numbers of Moths per Week (Week 12, Ending 7-22-09)

Trap Location	Tobacco Budworm	Corn Earworm (Bollworm)	Beet Armyworm	Trap Location	Southwestern Corn Borer
Hardeman (Bolivar)	0	5	0	Fayette (Whiteville)	0
Fayette (Whiteville)	0	0	---	Tipton (Covington)	5
Fayette (Somerville)	4	10	0	Madison (WTREC)	85
Shelby (Millington)	4	2	2	Crockett (Maury C.)	34
Tipton (Covington)	2	18	---	Obion (Midway)	195
Tipton (North)	3	22	0	Obion (Crockett)	233
Lauderdale (Goldust)	0	44	4	Obion (Union City)	114
Haywood (West)	8	4	0	Obion (Obion)	151
Haywood (Brownsville)	0	8	---	Lake (Owl Hoot)	21
Madison (WTREC)	2	36	9	Lake (Croanville)	160
Madison (North)	4	17	0	Lake (New Markham)	675
Crockett (Alamo)	1	4	0	Dyer (Newbern)	146
Crockett (Maury City)	0	6	0	Dyer (Craig Rd)	65
Dyer (Dyersburg)	*	*	0	Dyer (Hwy 104 E)	90
Dyer (Newbern)	0	8	0	Dyer (Parker Rd)	206
Lake (Ridgley)	0	*	0	Weakley (Ore Sprg.)	13
Gibson (Kenton)	0	51	0	Weakley (Greenfield)	41
Gibson (Milan REC)	0	0	*	Weakley (Bean's S.)	56
Carroll (Coleman Farm)	*	*	0	Gibson (MREC)	*
Average per Trap	2	15	1	Gibson (Rutherford)	271
An asterisk (*) indicates the trap was missing, knocked down, or no report was received.				Gibson (Strawberry)	483
				Giles (Tarpley Shop)	37
				Giles (Agnew)	52
				Henry (Tosh Farms)	637
				Lincoln (Molino)	32
				Lincoln (Camargo)	112
				Lincoln (Meridianvil.)	136
				Average per Trap	135

The University of Tennessee is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA institution in the provision of its education and employment programs and services. All qualified applicants will receive equal consideration for employment without regard to race, color, national origin, religion, sex, pregnancy, marital status, sexual orientation, gender identity, age, physical or mental disability, or covered veteran status. The University of Tennessee Institute of Agriculture, Agricultural Extension Service, Tim Cross, Dean.

DISCLAIMER STATEMENT

This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label takes precedence over the recommendations found in this publication. Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others which may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product. The author(s), The University of Tennessee, The Institute of Agriculture and the University of Tennessee Extension assume no liability resulting from the use of these recommendations.

Scott D. Stewart (editor)
Extension IPM Specialist

