Mississippi Crop Situation

July 31, 2009	Mississippi State University Extension Service	Number 18

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This Weeks Planting Report

National Agricultures Statistics Services (Mississippi) Crop Progress for Week Ending 7/26/09				
Crop	This Week	Last Week	Last Year	5- Year Average
Corn Dough	96	91	96	94
Corn Dent	78	61	74	74
Corn Mature	6	--	12	15
Cotton Squaring	100	98	99	99
Cotton Setting Bolls	73	58	78	84
Peanuts Pegging	99	96	98	--
Rice Headed	27	20	35	50
Sorghum Heading	98	81	91	96
Sorghum Coloring	23	15	51	48
Soybeans Blooming	98	91	96	98
Soybeans Setting Pods	86	72	84	89
Soybeans Turning Color	5	1	1	10

Soybean Insects

Angus Catchot

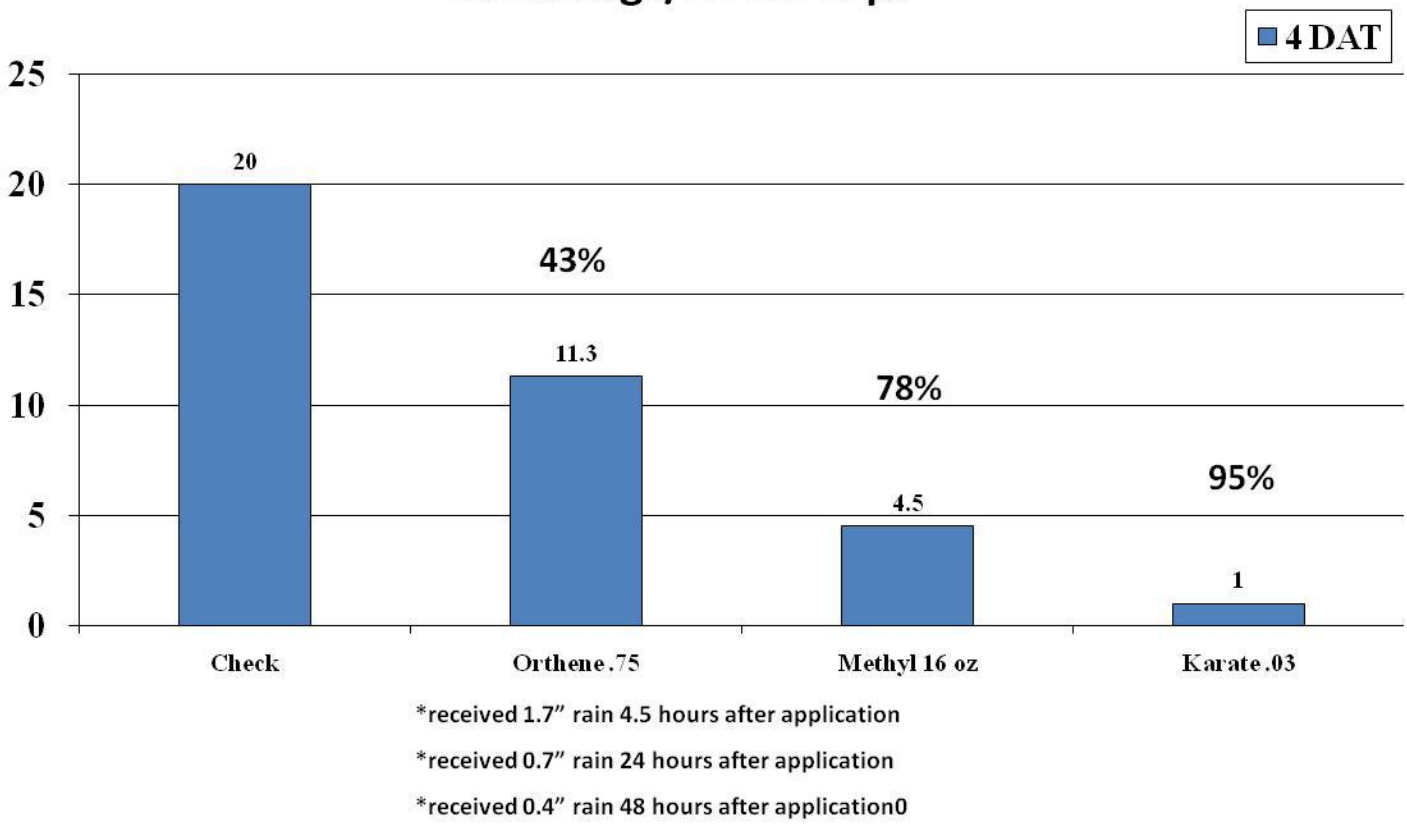
Bollworm: Over the last 10-14 days we have treated significant acres of soybeans for threshold numbers of bollworm. I cannot stress enough the importance of scouting this crop closely. **This is a prolonged flight and you may have to make multiple applications as new eggs are laid**. We reported 3 weeks ago about lots of bollworm moths being flushed in cotton and soybeans and we are still flushing moths today that are laying eggs. This is really not a surprise given the number of bollworms we have experienced in corn this year. Corn is a major source of bollworms for us. This year we had much higher whorl feeding activity early on and now we have seen much higher ear infestations than years past. In outbreak years of bollworms, corn always plays a significant role. At some point in the season nearly all bollworms are funneled through corn and builds populations to high levels.

Remember, the threshold for bollworms in MS is **9 larvae per 25 sweeps or 3 per foot of row** on a drop cloth on beans that are in the reproductive stage. I am still getting a couple reports of late planted beans not yet flowering with high numbers of bollworms in them as well. If the beans are not in reproductive stages we use a defoliation threshold of 35%.

Treatment Options: Pyrethroids are good options for control of bollworm in soybeans and generally control with pyrethroids is very good. Over the last 10 days I have had 4 calls where we have missed bollworms in cotton with well timed applications. I have had only one report in soybeans where bollworms were not controlled with a pyrethroid. Larvae from these fields were collected by Ryan Jackson (USDA-ARS, Stoneville) and are being reared to test pyrethroid tolerance. These are isolated cases at this time and should not cause alarm. However, if you have an obvious field control failure we would like to have USDA make a collection so give us a call. We will continue to monitor this situation and will keep you informed. In the meantime it is critical that you stay at the upper end of the rate scales when making pyrethroid applications for bollworm control. Generally, they are controlled very easy even at low to mid level rates but it is not worth taking a chance given the price of these chemistries. LA has been also reporting pyrethroid failures in some crops and is showing elevated tolerance in their vial testing assays. Dr. Roger Leonard has reported better control of tolerant bollworms by adding 0.5 lb of acephate with the pyrethroid. Other options are Steward (5.6-11.3 oz/acre), Lannate (3/4-1 ½ pt/acre), Tracer (1.5-2 oz/acre), and Larvin (10-30 oz/acre).

Rainfastness of insecticides for Soybeans: A common question with the weather pattern we are in is about the rainfastness of insecticides. This is something that is not on most labels. While I do not have any "hard" data to report, my experience from conducting numerous test and getting rainfall events shortly after is most of the contact materials provide acceptable control when rain free for 2-4 hours. This is true for the pyrethroids and some of the OP's like methyl. The one exception I have found is with acephate. From our test over the years I would recommend a minimum of 6-8 hours rain free for this material and optimal 10-12 hours. Other exceptions are products like Larvin or Sevin. These two products are essentially gone after the first good rain. Other exceptions are the IGR's like Intrepid, Dimilin, or Diamond. These products appear to be extremely rainfast. These are generalizations from past experience. With any product the longer rain free period the better but we can still get acceptable control when dodging showers.

Stink Bug Efficacy in Soybean Heavy Rain After Application

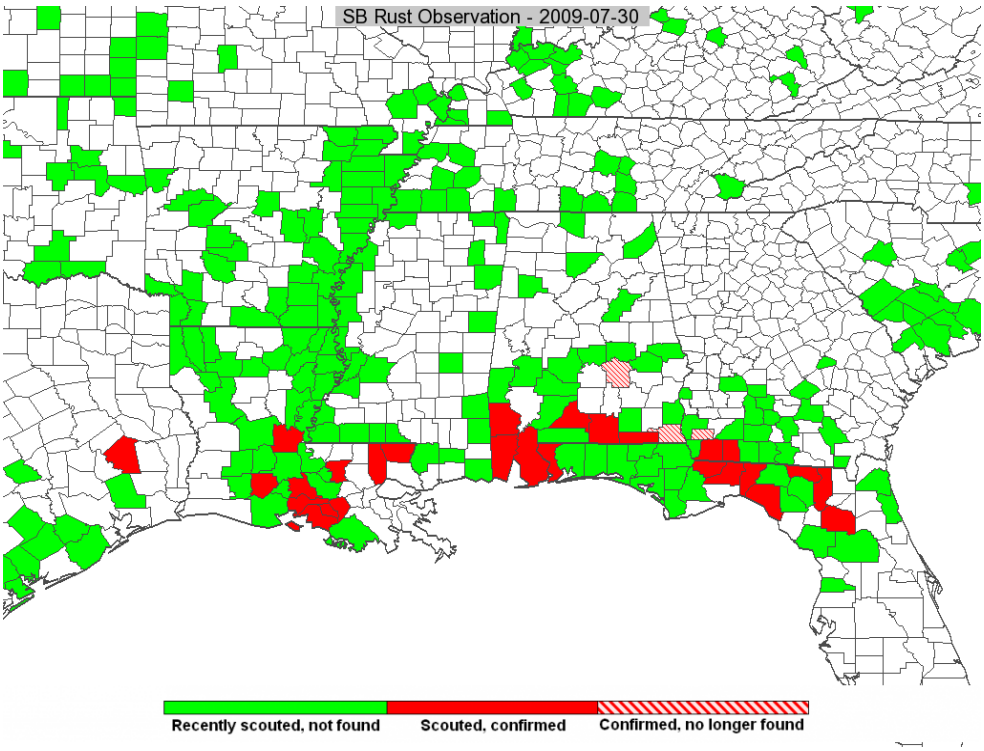


Redbanded Stink Bug ID: We are getting more and more reports of Redbanded stink bugs being caught at higher numbers. We have already had several fields that have had Redbanded make of the majority of threshold. I showed these pictures a couple of weeks ago but figured with all the recent reports of Redbanded and questions around ID I would include them again. Only thing you would confuse with is a Redshouldered stink bug but Redshouldered do not have the spine like the one in the picture:

Soybean Rust Update

Dr. Tom Allen

Still no soybean rust in Mississippi to date. However, with the recent shift in weather over the past two weeks (from hot and sunny to cooler, wet weather) we have reached a point in the season with conducive conditions that could allow rust to develop almost anywhere in Mississippi. Over the past few years, and particularly in 2008, it seemed that soybean rust required spore deposition during rain storms. Most of those rain storms came from Gulf moisture and the weather pattern moved from due south to the north. To this point in the season we have not received spore deposition during rain storms and most of our rainfall has come from the northwest and not from out of the Gulf of Mexico. In addition, infected sites needed to be present to our south, produce inoculum and send it north on winds with those rain storms. Even though soybean rust has continued to be reported from Louisiana this season, pathologists in LA have suggested that sporulation has been low in most of the locations with reported rust. This has meant that while LA has reported rust from numerous parishes (10 to date) the spread of the disease has been limited from positive locations and within the state altogether.



We will continue to scout sentinel plots, focus on kudzu patches with a prior history of infection from soybean rust as well as commercial soybean fields throughout the state. Over the next few weeks we will intensively scout the more mature soybean sentinel plots and any volunteer soybeans as well as commercial soybeans in the later growth stages. We tend to focus on soybeans in the later growth stages (R5.7-R8) since they are a little easier to scout due a reduced number of leaves and will allow us to determine if the disease is present in a particular area. In no way does this mean that younger soybeans are not at risk or that we are not concerned about younger soybeans. If we do find soybean rust please confirm the presence of the disease in Mississippi by checking the website (www.sbrusa.net), the soybean rust telephone hotline (1-866-641-1847), or calling me directly.

Soybean Grading Clinics

Dr. Trey Koger

MSPB
Mississippi Soybean Promotion Board
Making Your Checkoff Pay Off

Soybean Grading Clinics

Provide hands-on training and education on the grading process for MS soybean

9:00 – 11:30 AM
Hands-on training for elevator inspectors

12:00 – 1:00
Lunch provided
(attendees for morning & afternoon session)

1:30 – 3:00 PM
Process and procedure for grading soybean at elevators
(open to public)

Clinic Locations:

July 29th (Vicksburg)
Vicksburg / Warren school district superintendants office
1500 Mission 66 Street, Vicksburg MS 39180

July 31st (Stoneville)
Delta Research and Extension Center, Capps Entrepreneurial Center, Stoneville, MS 38776

August 4th (Tunica)
Tunica RiverPark
One Riverpark Drive, Tunica Resorts, Mississippi 38664
www.Tunicariverpark.com 1-866-517-4837

August 18th (Verona)
North Mississippi Research and Extension Center
5421 Hwy 145 South
Verona, MS 38879

Sponsors

Mississippi Soybean Promotion Board
Mississippi Department of Agriculture and Commerce
Mississippi Farm Bureau Federation
Delta Council
Mississippi Soybean Association
Mississippi State University Extension Service

Questions? contact Trey Koger, Soybean Extension Specialist, MSU-ES
(cell:662 207-1604 / email: tkoger@drec.msstate.edu

Cotton Agronomics

Dr. Darrin Dodds

Fruit Shed: Cotton will shed fruit for a variety of reasons and with the recent rainfall and associated cloudy conditions, shed has started to occur. Fruit shed in cotton is a physiological process that occurs when an abscission layer is formed between the fruiting branch and the peduncle (boll stem). Enzymes loosen the connection between cells and the weight of the square or boll breaks the peduncle. Several days will elapse between the event triggering the formation of an abscission layer and the actual shed of the fruiting structure. Generally, squares, and medium to large size bolls are more resistant to shed due to environmental conditions; however, small bolls are more prone to shed. There are multiple causes for abscission that have been identified.

Table 1. Cotton growth and development throughout Mississippi.

Location	Height	Total Nodes	Internode Length	NAWF
	Inches	Number	Inches	Number
Sledge	35	16	2.6	4
Mattson	31	16	2.0	4
Glendora	40	18	2.5	7
Greenwood	36	17	2.1	4
Indianola	34	17	2.0	3
Inverness	--	--	--	--
Hollandale	44	18	2.1	4

Light: Sunlight is required for photosynthesis; however, during cloudy conditions photosynthesis is greatly reduced. When photosynthesis is reduced, the cotton plant is forced to survive on energy reserves that would normally be allocated for boll growth. The inability to adequately supply young bolls with required photosynthates (sugars or carbohydrates) subsequently results in shed. Warm weather can compound the effect of low sunlight because this causes the plant to consume more stored photosynthates than during cooler weather. Even in full sunlight shed may be observed. Older growth lower in the canopy is shaded by newer growth which results in reduced photosynthesis and shed. Shed during these conditions can almost appear to be occurring in a chain reaction. Resources that would have been allocated to the fruit that was shed are put into stems, leaves, nodes, etc. which results in cotton with more vegetative growth. Cotton will continue to growth and shed until growth is regulated through the use of a PGR or some type of stress.

Temperature: Cold temperatures can result in square shed due to reduced photosynthesis and sugar production. Nighttime temperatures below 55°F can reduce photosynthesis by 30% or more. Cotton is generally more tolerant of high temperatures than low; however, if the plant is unable to cool itself below 90°F through evaporative cooling, shed of small bolls will occur. Evaporative cooling is also reduced during periods of high humidity and/or reduced soil moisture. Heavier boll loads increase the occurrence of boll shed due to high temperatures. High nighttime temperatures can result in pollen sterility. Temperatures at night greater than 85°F can cause pollen sterility and shed will generally occur 17 to 19 days following the occurrence of high nighttime temperatures.

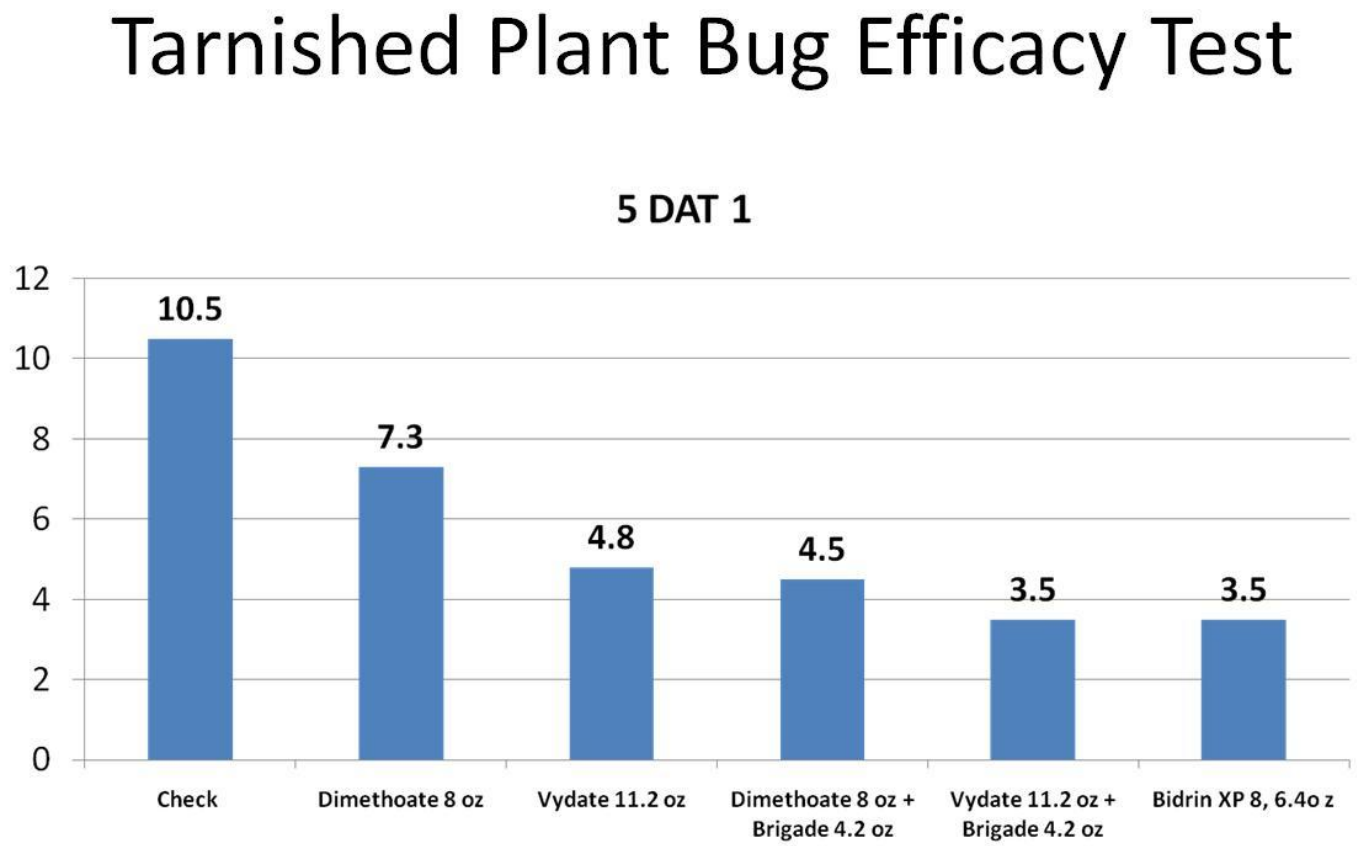
Soil Moisture: Excess soil moisture results in depleted oxygen levels in the soil. When oxygen in soil is low, plants close their stomates which reduces photosynthesis as well as disrupts the cooling processes of the plant both of which can cause fruit shed.

Moisture in Blooms: Rainfall or overhead irrigation on cotton with open blooms can also cause shed. Water causes pollen grains in the flower to rupture which prevents pollination. Flowers that are not pollinated are shed.

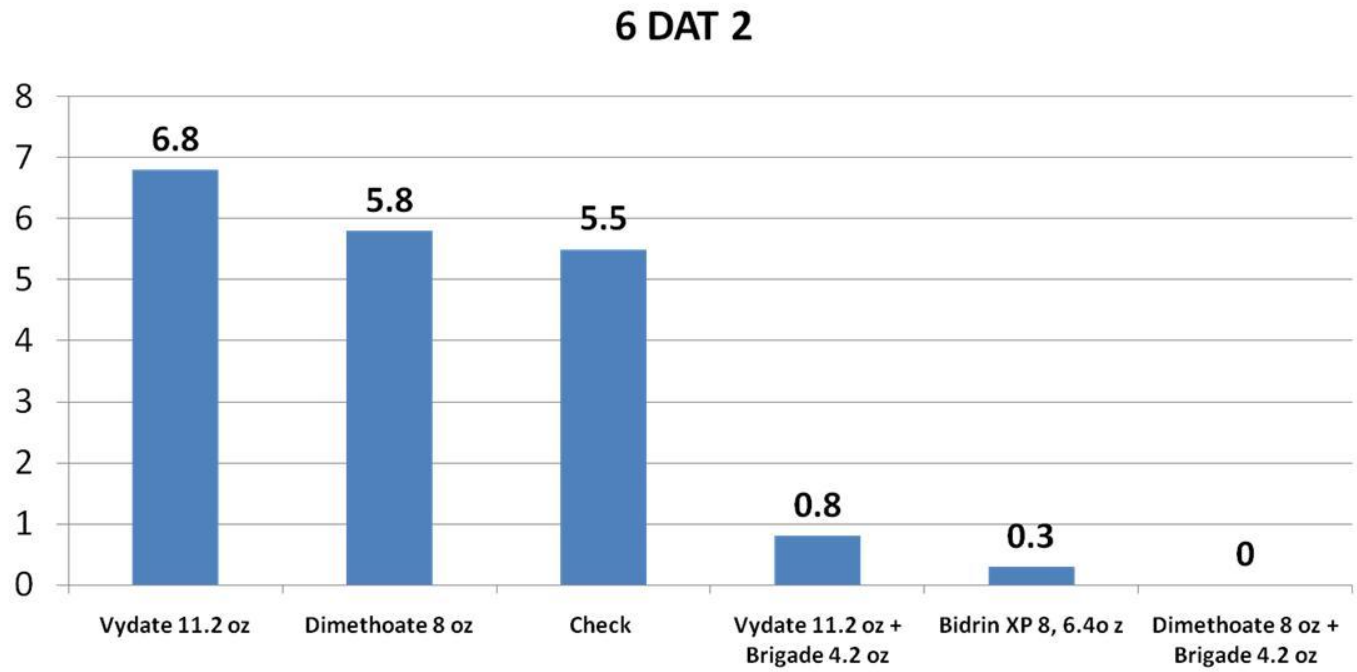
Cotton Insects

Angus Catchot

With all the recent rainfall there is no doubt that it will slow spider mite progression across the fields. However, plant bug numbers are still heavy in some areas of the delta. Here is a data set showing the added benefit of a pyrethroid to the plant bug material we recently conducted in Glendora, MS. After 2 applications the addition of the pyrethroid nearly zeroed out the plant bugs. In this test I used Brigade and Discipline but we have seen similar results with the other pyrethroids when added as well. Also, in other test this year Endigo, Leverage, and Brigadier have looked as good or better than Orthene alone. The figures below show the results of a recent test. Figure 1 is 5 days after the first application. Figure 2 shows 6 days after application 2.



Tarnished Plant Bug Efficacy Test



Rice Agronomics

Dr. Nathan Buehring

Conditions over the last couple of weeks have been cool, wet and soggy. The rainfall totals at Stoneville during the last two weeks have been over 6". Other areas of the Delta have had accumulations over 10". The average high for this time period has been 88 F and the average low has been 68 F. These conditions have been less than ideal, especially for rice that is pollinating or late planted rice that needs to accumulate heat units. The potential impacts of this wet and cool weather on rice that is pollinating will not been seen until harvest. Historically, our highest yields have been when the average high temperature is in the low 90's with little to no rain being received between July 15th and August 15th. Hopefully, sunshine will prevail in the upcoming weeks to help this crop move forward.

With the wet and cool conditions, problems with sheath blight have increased. Sheath blight should be continued to be a problem in the coming weeks with below average temperatures and above average moisture. Sheath blight progression can be quiet rapid during these conditions. The chart below gives you the equivalent rates of the premix fungicides. An equivalent rate of Quadris at 6 fl oz/A will give you approximately 14 days worth of protection against sheath blight and 9 fl oz/A will give you 21 days worth of protection. Stratego applied at 16 to 17 fl

oz/A will give you approximately 17 days worth of protection against sheath blight and 19 fl oz/A will give you 21 days worth of protection.

Another disease not to forget due to this weather is neck blast, especially with CL 151. Historically, blast is a problem on lighter texture soils where it is hard to maintain a deep flood. CL 151 rates very susceptible to neck blast. Therefore, if you have CL 151 I would be sure and look for blast lesions on the leaves. Previous research has indicated that Stratego at 16 to 19 fl oz/A or Quadris at 12.5 to 15.5 fl oz/A applied at late boot (before panicle emergence) will help provide protection against blast.

Rice stinkbug pressure this year seems to be higher than in previous years. Current threshold levels for rice stinkbugs are 5 stinkbugs/10 sweeps the first two weeks of heading and 10 stinkbugs/10 sweeps the second two weeks of heading. All of the pyrethroids labeled in rice perform equally as long as the proper labeled rate is used for rice stinkbug control. Be sure and read label instructions for use in rice before making an application.

EPA Call For Public Comment

Dr. Jason Bond and Tom Eubanks

Potential Issues with Fomesafen and Clomazone Re-registration

EPA has published a draft endangered species assessment for fomesafen and clomazone. Fomesafen is one of the active ingredients in the herbicides **Flexstar®, Flexstar GT, Reflex®, and Prefix®**. Clomazone is the active ingredient in the herbicide **Command**. Fomesafen is commonly used in one or more crops, including soybeans, snap beans, dry beans, cotton, and pine seedling nurseries, and registration is pending at EPA for tomatoes and potatoes. Clomazone is one of the base herbicides for weed control programs in midsouthern rice production. If EPA's pending draft assessment is adopted, the use of these products may be seriously restricted. Furthermore, if EPA proceeds using this assessment process for other active ingredients, i.e., glyphosate, paraquat, glufosinate, etc., the results would be catastrophic for American agriculture.

EPA is currently seeking <u>public comments from stakeholders</u> on the draft assessments for fomesafen and clomazone. These active ingredients are being assessed under EPA's new Registration Review program, which will involve all pesticide active ingredients on a 15-year rolling cycle. **We urge you to voice your opinion in this matter now as the future use of many agricultural herbicides, as well as insecticides and fungicides, may be affected in the future.**

Comments must be made separately for each active ingredient (fomesafen and clomazone). Possible talking points for each of the active ingredients are as follows:

Fomesafen Talking Points:

- Reference fomesafen docket number EPA-HQ-OPP-2006-0239
- The importance of fomesafen to Mississippi growers' operations
- Problems with glyphosate (and/or other herbicide MOA's) resistance in crops in which fomesafen is labeled
- How proposed restrictions will impact the utility of fomesafen-containing products
- Urge the EPA to employ a process that utilizes all of the best available science/data and to consider input from key stakeholders, especially prior to enacting any of the proposed mitigations.

The public comment period for fomesafen is open until August 21, 2009. Comments can be mailed to the following address (reference **Docket # EPA-HQ-OPP-2006-0239** in your subject line):

Office of Pesticide Programs (OPP)
Regulatory Public Docket (7502P),
Environmental Protection Agency,
1200 Pennsylvania Ave., NW.,
Washington, DC 20460–0001

Alternatively, comments can be made electronically using the following link: http://www.regulations.gov/fdmspublic/component/main?main=DocketDetail&d=EPA-HQ-OPP-2006-0239

Clomazone Talking Points:

- Reference clomazone Docket Number EPA-HQ-OPP-2006-0113
- The importance of Command 3ME to Mississippi rice growers in managing weeds
- Indicate reasons one feels Command 3ME is essential to rice production in Mississippi
- Indicate that the current 300 foot buffer on label to protect off-target desirable plants is sufficient protection, even with aerial application, since little if any bleaching or whitening of plants within the 300 foot buffer zone has been observed
- Indicate reasons why aerial application of Command 3ME is absolutely essential to rice production
- Explain why a buffer of more than 300 feet (except near residential areas and orchards) may cause economic hardship for growers
- Indicate that no worker safety issues or concerns have ever been experienced using Command 3ME in addition to not seeing any environmental concerns.

The public comment period for clomazone is open until August 21, 2009. Comments can be mailed to the following address (reference **Docket # EPA-HQ-OPP-2006-0113** in your subject line):

OPP Regulatory Public Docket (7502P)
Environmental Protection Agency
Rm. S-4400, One Potomac Yard (South Bldg)
2777 S. Crystal Dr.
Arlington, VA 22202-4501

Bollworm/Budworm Trap Captures

Ryan Jackson USDA Trap line

July 27, 2009

County	This Week last Year Bollworm	Bollworm	This Week last Year Budworm	Budworm	FAW
Washington	5	29	17	10	-
Sharkey	65	7	0	0	-
Humphreys	11	83	0	0	-
Yazoo	14	113	8	7	-
Holmes	10	23	0	0	-
Leflore	28	102	21	29	-
Tallahatchie	9	114	51	0	-
Coahoma	48	152	0	0	-
Bolivar	27	150	3	0	-
Sunflower	20	54	21	0	-

Fred Musser Trap line

July 29, 2009

County	This Week last Year Bollworm	Bollworm	This Week last Year Budworm	Budworm	BAW
Grenada		18		0	1
Hinds		68		2	0
Madison		44		4	14
Rankin		23		10	4
Oktibbeha		330		12	26
Noxubee		36		10	0
Lowndes		47		2	0
Lee		42		4	2
Prentiss		25		0	0
Chickasaw		42		13	0
Calhoun		116		4	15
Webster		31		11	8

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