

Mississippi Crop Situation

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[Past Newsletters Archive](#)

Newsletter Shortcut Bar- Click to Skip to Topic

Soybean Insects	Cotton Agronomics	Corn Fungicide Use	Corn Rust	NE District Report
Sorghum Double-Crop	2008 Trap Captures			

This Weeks Planting Report

National Agriculture Statistics Services (Mississippi) Crop Progress for Week Ending 6/1/08

Crop	This Week % Planted	Last Week % Planted	Last Year % Planted	5- Year Average % Planted
Corn Planted	100	100	100	100
Corn Emerged	99	99	100	100
Corn Silked	8	1	34	17
Cotton Planted	90	77	100	98
Cotton Emerged	75	40	96	93
Peanuts Planted	90	80	88	--
Rice Planted	95	92	100	99
Rice Emerged	90	82	98	97
Sorghum Planted	91	79	99	100
Sorghum Emerged	79	63	95	97
Soybeans Planted	92	85	99	96
Soybeans Emerged	86	72	94	95
Soybeans Blooming	4	1	8	14
Winter Wheat Mature	78	67	89	78
Winter Wheat Harvested	15	2	34	23

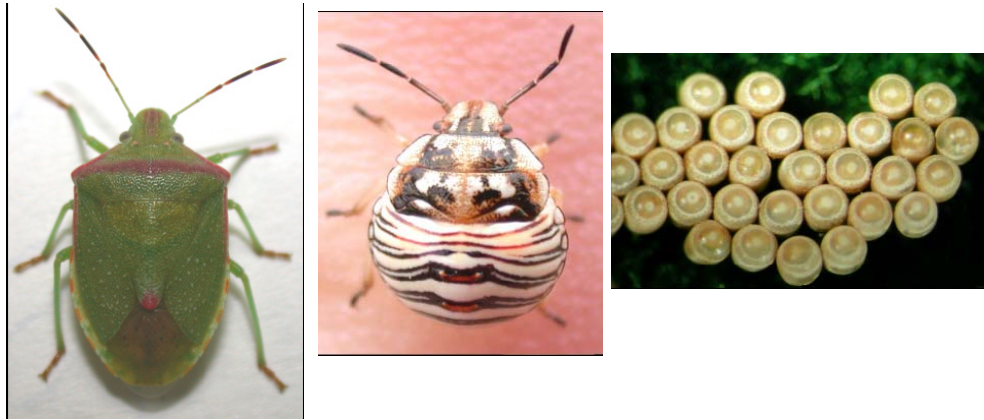
Soybean Insects

Angus Catchot

Stink Bugs: Still getting calls about stink bugs moving into flowering soybeans in some areas. In most cases numbers are low but many people are beginning to find lots of stink bug egg masses in these areas. Still trying to hold folks off of making an application on our early threshold here in MS of 3/25 sweeps if that's all they are averaging until R3. On the higher counts of 9/25 sweeps we are treating these fields even if we are not at R3 quite yet. Most consultants are reporting numbers coming down in corn. These are very likely what is moving into the soybeans at this time. Stink bugs range from all browns to a mix of greens and browns to mostly green. All over the board right now. There was one report last week of bollworms being found in beans in low numbers but these have cycled out this week. We also had a consultant find a single Redbanded stink bug in the Belzoni area. Last year we found Redbanded stink bugs in low numbers as far as Starkville. This pest has not yet become established in this state but we are seeing increased incidence every year. This one can be very difficult to control and will be important to be able to correctly identify it if we start seeing treatable numbers. It can be easily confused with the Redshouldered stink bug which we have been seeing in high numbers over the last several years. Both of these stink bugs are smaller than our more common southern greens and have a red line across the back. The easiest way to identify it if it is an adult

is to look for the spine between the legs. If the spine is there it will be a Redbanded. If the spine is not it will be a Redshouldered. The nymphs are very easy to tell apart from the pictures below. We appreciate the consultants that frequently call and give us reports of there findings. This helps us monitor where this pest is moving to in our state.

Redshoulderd Stink Bug (*Thyanta accerra*)



*From: (EB 158) Identification and Management of Common Boll-Feeding Bugs in Cotton
Jeremy K. Greene, C. Scott Bundy, Phillip M. Roberts and B. Roger Leonard

Redbanded Stink Bug (*Piezodorus guildinii*)



*From: (EB 158) Identification and Management of Common Boll-Feeding Bugs in Cotton
Jeremy K. Greene, C. Scott Bundy, Phillip M. Roberts and B. Roger Leonard

Cotton Agronomics

Dr. Darrin Dodds

Crop Progress: According to the USDA report that came out at the beginning of the week, 90% of the Mississippi Cotton crop has been planted which is a 23% gain from the previous week. Probably to no one's surprise, at the same calendar date last year, 100% of the crop was planted. Due to the exceedingly wet, and somewhat cool conditions this spring, there is a wide range of cotton growth stages depending on your location in the state. Some of the older cotton in the state is at or approaching the 10-leaf stage, whereas some of the youngest cotton is in the cotyledon to 1-leaf stage. With the majority of the crop being later than usual as well as unknown weather conditions this fall, management for earliness is essential.

Growth Regulator Use: In many cases, cotton that was planted later this year looks better than some of the early planted cotton. However, keep in mind that growth of late planted cotton should be monitored closely. Generally, late planted cotton is highly vigorous and produces a greater amount of growth than early planted cotton due to the warmer and longer days. The use of mepiquat is one of the tools that can be utilized to manage excessive growth. Mepiquat works by reducing the synthesis of gibberellic acid in the plant. Gibberellic acid promotes cell expansion and elongation. Generally, plants treated with mepiquat will have a 5 to 10% reduction in leaf area index; however, although the leaves are smaller, they may also be thicker due to an increased layer of cells that develops. Additionally, branches tend to be shortened and stem dry weight may be reduced up to 20% due to an application of mepiquat. Yield effects due to application of mepiquat have been inconsistent at best. Data is available showing increased, decreased, and no yield benefit due to applications of mepiquat. However, some data suggests that applications of mepiquat to late planted cotton can provide yield benefits (see Table 1). Keep in mind, if your cotton becomes stressed due to weather, insects, etc. an application of mepiquat can compound problems that are already present. Plant growth regulator products should not be applied to cotton that is under stress.

Table 1. Effect of mepiquat and planting data on cotton yield.

	----- Planting Date -----					
	Mid-April		Early May		Late May	
	Mepiquat Treated Plants	Untreated	Mepiquat Treated Plants	Untreated	Mepiquat Treated Plants	Untreated
Plant Height	46.4	50.8	46.9	56.7	48.1	60.6
Lint Yield	1301	1363	1457	1382	1195	1060

Corn Fungicide Recommendations

Dr. Tom Allen and Dr. Erick Larson

Fungicide expectations: Fungicides are developed and proven to prevent yield loss from disease when factors are present that promote disease (environment, inoculum, susceptible hybrids). However, Research at MSU, universities in neighboring states, and universities across the United States have shown little or no evidence that fungicide use on corn is capable of enhancing grain yield or other plant health or growth parameters in the absence of disease infection. Therefore, we recommend you pay close attention to the variables likely to influence disease and support your management decisions with routine field scouting in order to use fungicides on corn in a prudent manner - when you have a high likelihood of generating a profitable response. Remember, fungicides are developed and labeled to protect the crop from yield loss due to disease. If significant disease development (i.e. yield reducing disease levels) does not occur, then crop response is highly unlikely.

Factors effecting development: Several parameters known to effect foliar disease incidence are environmental conditions, crop rotation, and crop hybrid. Disease development is generally favored by moderate temperatures and moist, rainy conditions. Conversely, dry, sunny weather typically retards the development of many diseases. Our routine rotation of corn with other crops substantially reduces the significance of foliar diseases which survive on corn residue, such as northern and southern leaf blight, gray leaf spot (please note, gray leaf spot has not been reported to be a problem in MS or the southeast for that matter), and anthracnose, compared to the southern corn belt, where continuous corn, reduced tillage systems have made these diseases a common, annual occurrence. However, since we have more corn grown in fields following corn this season, these fields could be subject to increased disease pressure. Also, hybrid susceptibility to foliar diseases often varies considerably, with some hybrids proving to be quite resistant to a specific disease. This was quite evident during the 2004 season, when severe yield loss primarily due to northern corn leaf blight was limited to about 12 out of 104 hybrids, as noted in the 2004 MSU Corn for Grain Hybrid Trials Bulletin (<http://msucares.com/pubs/infobulletins/ib0416.pdf>). Thus, hybrids which have demonstrated substantial resistance to a specific disease in the past are much less likely to respond to fungicide use.

The role of scouting: Field scouting is essential to help make practical management decisions. Correct disease identification, determination of disease location in the crop canopy, monitoring disease development over time, and crop growth stage can be analyzed to estimate the particular threat to the crop. Many foliar diseases of corn initially infect lower leaves, and then spread up the canopy, because the fungus that causes them can survive in infested corn residue left on the soil surface. The rusts (common and southern rust) are an exception to this since they must annually blow into MS from more tropical areas. Therefore, crop consultants or others closely scouting their corn crop have ample opportunity to identify disease infection and recommend timely fungicide application, before the critical upper leaves are infected. The upper leaves produce the vast bulk of the photosynthetic energy used to fill grain.

Fungicide duration: Also, you should realize that a single fungicide application at tassel stage is not capable of providing season-long disease control in corn. Corn's reproductive (grain development) stages normally last about 60 days (tassel to grain physiological maturity). A single fungicide application can provide protection for between 14 and 21 days. Accordingly, proper fungicide application timing and fungicide choice largely determines the magnitude of crop response. Early disease infection by potentially aggressive diseases may actually require multiple fungicide applications but this scenario is dependent on environmental conditions following disease infection.

Summary: In summary, we believe producers may substantially improve their likelihood of a profitable response by closely scouting the crop, and accounting for the weather, culture, and hybrid to make fungicide applications when conditions warrant. If disease is present in the field, the weather is conducive for disease development, the hybrid is susceptible to the disease, and the crop is at a growth stage when that disease could hurt yield, then spray an appropriately labeled fungicide with the capability of controlling the disease that is present and preventing further infection from that specific disease. If any one of these parameters is not met, then fungicide application may not be profitable.

Corn Rust Management

Dr. Tom Allen

In the past few weeks I have received numerous calls and looked at a lot of corn samples. Despite seeing some anthracnose and observing one location with northern corn leaf blight (albeit lower in the canopy), most of my calls have been regarding common rust of corn. In 2007 it didn't seem like we saw much common rust, a few pustules on scattered leaves within a single field. However, in 2008 we are seeing more numerous common rust pustules within fields and on single leaves. This is simply a product of the spring/early summer environment that has included a lot of rain in some locations. With increasing temperatures common rust should start to phase itself out. Common rust will often times be found in bands across the leaf. These bands of rust are caused when fungal spores of the pathogen accumulate around the whorl and the leaf grows out of the whorl to expose the disease. Now, this is not to say you won't observe common rust on the leaf tips. In fact this year we have encountered common rust on leaf tips. I don't remember seeing any common rust on the leaf tips in 2007.

I have included a table to provide a bit more information on corn rusts (both common and southern) and to help in the decision making process between the two diseases. Simple guidelines and comparisons for the two diseases are included in the table. Now, this is not to say that there are certain situations where some of this information might differ and depend on hybrid susceptibility as well as local environmental conditions. Remember, the temperatures encountered above the canopy can be much different than within/below canopy temperatures depending on irrigation, cloud cover, and even row spacing. I have included the labeled fungicides and whether or not they can be used for common or southern rust. Please keep in mind there are differences between fungicide labels for field corn and sweet corn when it comes to pre-harvest intervals. However, I will also mention that fungicides **CAN** be applied to corn as late as dent and still result in an economic response. If you have specific questions regarding a labeled rate, pre-harvest interval or the type of rust you could be dealing with do not hesitate to call me.



	Common rust	Southern rust
Causal agent	<i>Puccinia sorghi</i>	<i>Puccinia polysora</i>
Occurrence on leaf	Top and bottom of leaf	Top of the leaf (almost exclusively)
Pustule color	Cinnamon to brown (think Auburn orange)	Light orange (think Tennessee orange)
Environment	Favors moderate temperatures (≈61-77°F)	Favors warmer temperatures (≈80-90°F)
Part of corn plant infected	Any above ground plant part, but pustules most abundant on leaves	Any above ground plant part, but pustules most abundant on leaves
Damaging?	Minor, rare	Can be, depends on crop growth stage, sporadic
Chemical control warranted?	Probably not (I would NOT personally recommend a fungicide to control common rust unless I felt the environment was going to tremendously favor disease development), normally a fungicide application is NOT economical for common rust control	Depends on the amount of southern rust on the leaf surface (>10% of leaf surface covered with southern rust means a fungicide might be economically beneficial)
Labeled fungicides	Bumper 41.8 EC, Dithane F-45 Rainshield, Dithane M-45, Dithane DF Rainshield, Headline, Manzate Pro-Stick, Manzate Flowable, Penncozeb 4FL, Penncozeb 75DF, Penncozeb 80WP, PropiMax EC, Quadris, Quilt, Stratego, Tilt	Bumper 41.8 EC, Headline, PropiMax EC, Quadris, Quilt, Tilt,

Crop Entomology Report – Northeast District

Dr. Don Cook

Sugarcane beetles: I am still getting a few reports of sugarcane beetle problems in corn. Sugarcane beetle problems seem to be declining in the Monroe and Clay County areas. The latest report I have gotten is from the Chickasaw and Calhoun County area. In some soybean fields there are moderate numbers of bean leaf beetles, however I have not seen enough defoliation to warrant treatment. I am also seeing thrips injury on cotton in some areas.

Sorghum Double-Crop Recommendations

Dr. Erick Larson

Yield expectations: Grain yields for the double-crop are normally considerably lower and more variable than associated with normal plantings. Double crop sorghum grain yields likely average about 50% less than a normal full-season crop. The primary factor which limits double-crop yield potential is limited water availability for the summer crop. This double-cropping system increases dependence upon mid to late-season precipitation to supply moisture for the developing crop. Thus, double-crop grain yields will suffer even more than normal when drought stress is severe. Thus, double-cropped sorghum has its highest water demand during July through early September, which is normally the hottest, driest part of the summer. Supplemental irrigation can help alleviate shortcomings in water availability and thus, greatly reduces the risk of crop failure and/or grain yield reduction due to drought. However, irrigation can not completely alleviate the adverse effects of high temperatures. Thus, irrigated double-crop yields normally average about 30% less than full-season irrigated crops.

Wheat stubble management: Many will likely question how to manage wheat stubble remaining after harvest. Many perceive this wheat residue is a hindrance which must be eliminated or it will impede planting. However, wheat straw can effectively mulch the soil, preserving substantial soil moisture, which is normally the primary limiting factor for the subsequent crop, especially when grown in dryland culture. Thus, use this to your advantage, instead of literally burning it off, if you can plant through the stubble.

Management inputs: I strongly recommend selecting well-adapted, heat tolerant hybrids for late plantings. These hybrids tend to be mid to late maturity hybrids, rather than early maturity hybrids. Seed treatment or other insecticide protection is strongly suggested because chinch bugs often thrive in a double-crop environment. Nitrogen rates should also be reduced, according to lower yield expectations. Our normal nitrogen recommendation for grain sorghum is about 1 pound of N per bushel of yield goal, so nitrogen rates could be reduced considerably for double-cropped sorghum. Also, I suggest the nitrogen should be injected, rather than broadcast on the soil surface. Surface application of urea-based fertilizers during hot, sultry conditions is strongly discouraged, because the potential for volatility loss is extremely high. Considering nitrogen prices, you cannot afford this potential loss and its potential effect on crop production and profit.

2008 Budworm/Bollworm Trap Captures

Pheromone Traps Captures – Don Cook, Chris Daves, and Fred Musser. Week of June 6th

County	Bollworm	Budworm	Beet Armyworm
Hinds	58	7	0
Lee	19	40	6
Lowndes	8	9	-
Noxubee	12	15	-
Oktibbeha	9	1	-

Ryan Jackson USDA Trap line

June 2, 2008

County	This Week last Year Bollworm	Bollworm	This Week last Year Budworm	Budworm	BAW
Washington	5	13	0	0	-
Sharkey	14	54	4	0	-
Humphreys	6	17	6	0	-
Yazoo	8	2	2	8	-
Holmes	8	6	5	0	-
Leflore	7	32	0	0	-
Tallahatchie	3	77	1	0	-
Coahoma	1	44	1	0	-
Bolivar	6	13	0	0	-
Sunflower	1	9	0	5	-

2008 Southwestern Corn Borer Trap Captures

Southwestern Corn Borer- Chris Daves June 4, 2008

County	Avg per Trap	County	Avg per Trap
Adams	-	Leflore	.6
Alcorn	-	Lowndes	-
Attala	-	Madison	-
Bolivar	-	Monroe	.4
Calhoun	-	Montgomery	-
Carroll	1.3	Noxubee	.2
Chickasaw	-	Panola	-
Clay	-	Perry	-
Coahoma	-	Pontotoc	.9
Copiah	-	Quitman	2.3
Covington	-	Rankin	-
Desoto	-	Scott	-
Forrest	-	Sharkey	-
George	-	Sunflower	.4
Grenada	-	Tallahatchie	-
Hinds	0	Tate	-
Holmes	-	Tunica	-
Humphreys	.5	Union	-
Issaquena	-	Warren	.1
Itawamba	-	Washington	1
Jackson	-	Webster	-
Jefferson	-	Winston	-
Lafayette	-	Yalobusha	-
Lee	.5	Yazoo	3.7

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