

Mississippi Crop Situation

August 15, 2008

Mississippi State University Extension Service

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[Past Newsletters Archive](#)

Newsletter Shortcut Bar- Click to Skip to Topic

[Market Briefs](#)

[Soybean Insects](#)

[NE MS Pest Update](#)

[Soybean Diseases](#)

[Cotton Update](#)

[Moth Traps](#)

[Subscribe](#)

[Directory](#)

This Weeks Planting Report

National Agriculture Statistics Services (Mississippi) Crop Progress for Week Ending 8/10/08

Crop	This Week	Last Week	Last Year	5- Year Average
Corn Dough	100	99	100	99
Corn Dent	96	90	98	90
Corn Mature	49	36	62	53
Corn Harvested	4	1	8	7
Cotton Setting Bolls	97	93	98	97
Cotton, Open Bolls	2	--	4	5
Peanuts Pegging	100	100	98	---
Rice Headed	69	50	96	92
Rice Mature	2	--	15	9
Sorghum Heading	96	94	100	100
Sorghum Coloring	68	61	78	87
Sorghum Mature	18	6	31	42
Soybeans Setting Pods	93	89	96	97
Soybeans Turning Color	10	4	29	39
Soybeans Dropping Leaves	1	--	15	20

****This will be the last weekly scheduled newsletter for this year. We will continue to send out newsletter from this point forward on an as needed basis****

Market Briefs

Dr. John Anderson

Corn: The corn market has endured a very precipitous price decline since the end of June. In late June, the September corn contract on the Chicago Board of Trade traded well over the \$7.50 mark. On Monday of this week, that contract was trading below the \$5.00 mark for the first time since last January. The most obvious reason for the dramatic turn-around in the corn market was the weather. Severe Midwest flooding in May and June raised concerns about the corn crop in the key production region. This generated a great deal of speculative interest in the market and helped to push prices to a level that was probably never very reasonable. Since the end of June, conditions in the Midwest have been "nearly ideal" to borrow a phrase from USDA latest World Agricultural Supply and Demand Estimates (WASDE) report. This has improved yield prospects tremendously, putting pressure on prices. The August Crop Production report, released on Tuesday, included the year's first survey-based estimate of national average yields. At 155 bushels per acre, this estimate was a rather dramatic change from last month's trend-based estimate of 148.4 bushels per acre.

Pleasant weather in Iowa is not the whole story in the corn market, though. Since late June, corn prices have also been responding to pressure from outside markets. Notably, oil futures have been sharply lower. A strong link between oil and grain futures has been a feature of the market for some time now. Just as corn futures ran up with oil prices last fall and spring, so too now have they run down with oil futures. From late-June to early-August, the September light crude oil futures contract fell from around \$150 per barrel to about \$115 per barrel. This move reflected changing expectations about future supply and demand conditions – the result of changing consumption and production patterns brought about by record high prices – as well as the impact of a strengthening dollar. A stronger dollar and consequently weaker oil market both encouraged traders to pull back from commodity markets in general, contributing to the corn price slide. This week's trading suggests that the corn market has probably stabilized for now. Tuesday's WASDE report should have been very bearish, with 2008 production and 2008/09 carryover projections that were at the extreme upper end of trade expectations. However, corn futures managed a modest gain on Tuesday followed by a limit-up move on Wednesday. This indicates that most participants in the market seem to think prices have already priced in the higher production figures. Moving forward, all eyes will be on objective yield information as harvest progresses from south to north over the coming weeks. The influence of outside markets – particularly oil – will continue to be key. Uncertainty about Russia's designs on pipelines in the Caspian region has had little effect on the market so far but that situation certainly raises the possibility of some real volatility in that market in coming days.

Soybeans: Soybean futures have largely moved in sympathy with corn and oil futures since late June. The decline in soybean prices in recent weeks has been significant but not quite as severe as in the corn market, at least judged in percentage terms. This week's reports looked fairly neutral in light of pre-report expectations. Production and carryover projections were very much in line with trade estimates. The soybean balance sheet remains very tight, and in fact was tightened a bit further from last month, with 2008/09 carryover projections dropped by 5 million bushels to 135 million. This mostly reflects lower yield projections for this year's crop. USDA's survey-based yield estimate came in at 40.5 bushels per acre, down from a trend-based projection of 41.6 bushels per acre last month. This fundamental support from the reports helped kick off Wednesday's strong move to higher prices (in both soybeans and corn). Without support from outside markets, the rally couldn't carry over into Thursday's trading. As with the corn market, harvest data and outside markets will determine where we go from here. Tight supply and demand fundamentals certainly argue for a pretty firm market going forward.

Soybean Insects

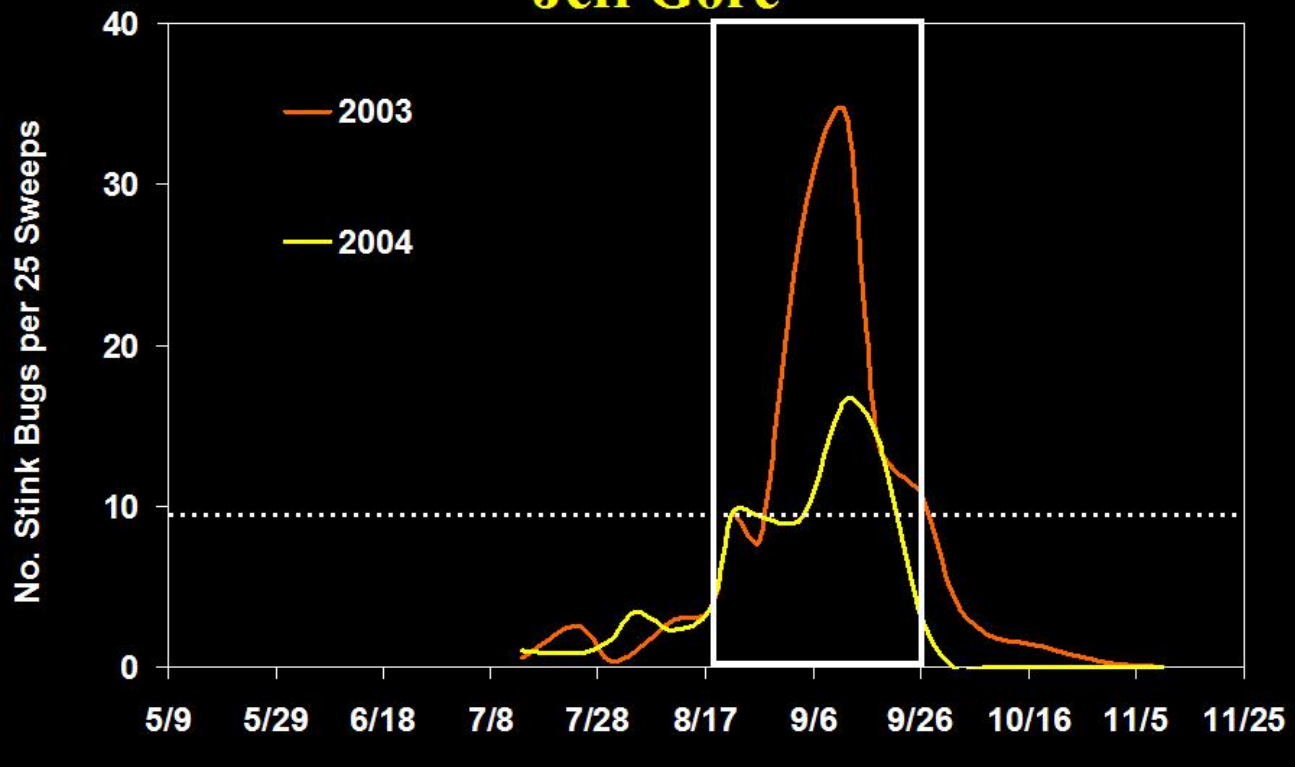
Angus Catchot and Dr. Jeff Gore

Stink Bug: With some exceptions, we have been fortunate to have below threshold levels of stink bugs over the last 4-6 weeks in most areas of the state. However, this week appears to be the turning point. I am getting numerous reports now that numbers are increasing rapidly in some areas. This is not at all unexpected. As our early groups 4 beans begin to dry down, adult stink bugs will leave those field looking for greener fields to infest. This often creates a domino effect as many fields begin to dry down. Also, if you look at average population trends in MS we are right on track to begin seeing these higher numbers move into our fields. The data in the figure below show that the highest populations of stink bugs began to increase around 8/15 and peak on average about the middle of September. Although we certainly treat for above threshold levels of stink bugs in our soybeans in MS, in normal years we miss the big buildups because of the early soybean planting system. This year will be the obvious exception. We have a lot more late beans and wheat beans than normal for us, which will expose a large portion of this crop to

the period of the year when populations are highest. If you do not have a consultant scouting your soybeans, I would strongly urge you to buy a sweep net.

Seasonal Abundance of Stink Bugs in Soybeans

Jeff Gore



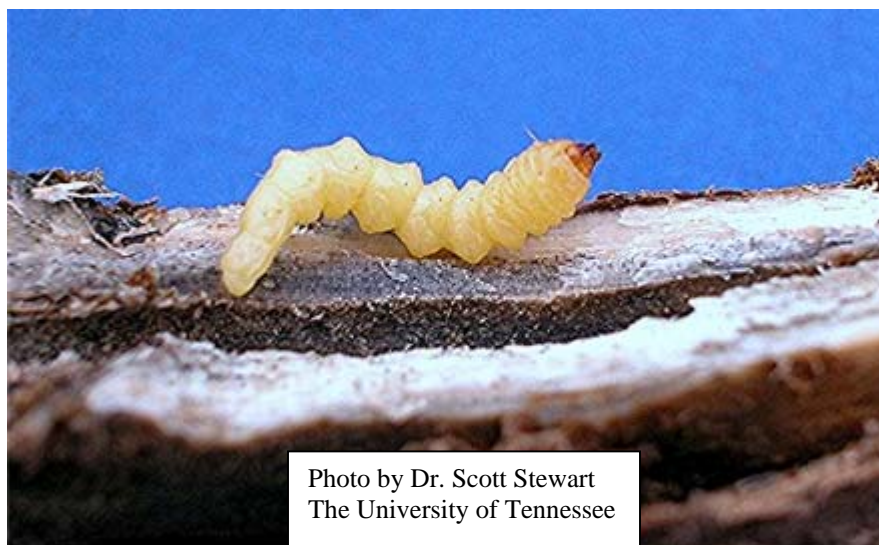
Terminating Insect Sprays for Defoliators in Soybeans: As the crop progress toward maturity a common question we often get is when can we quit treating for various insect pest in soybeans. Several insects make up the defoliating complex in soybeans including: Bean leaf beetle, loopers, green cloverworm, Velvetbean caterpillar, armyworms, etc. While there are no clear cut timelines defined to date like in cotton. There are several information sources we can draw from. With more research in recent years with harvest aids on soybeans, we can draw some fairly sound correlations to other sources of defoliation such as insects. From work conducted by **Joseph M. Boudreaux and James L. Griffin on “Harvest Aids in Indeterminate and Determinant Soybeans”**. Published in **Louisiana Agriculture: Vol. 51 No. 1, Winter 2008**, they found that 100% chemical defoliation in indeterminate varieties about R6.5 did not significantly impact yield. With determinant varieties they needed to go a little longer (R7). From this we can safely conclude that R7 is a safe point for termination of applications for the defoliating insect complex. Because this work was 100% defoliation levels with no significant yield penalty, it is also safe to assume that we can begin to start relaxing our thresholds of 20% defoliation when we reach the R6.5 stage of development.

Terminating Insect Sprays for Stink Bugs in Soybeans: This is the fourth year that Dr. Fred Musser has been working on late season stink bug damage. The last 3 years of data show that we can still take significant dockage at the elevator from stink bugs as late as R7. Our recommendations have been that we need to manage stink bugs through R7. This has not

changed. The one difference is that it takes 1.5 – 2X thresholds at this point to see these damage dockages. When terminating stink bug sprays in soybeans it is important to follow them through the R7 stage but once you reach R7 we can start backing off of our thresholds a little at this point. For instance, instead of treating at 9/25 sweeps, we may use a 15-20/25 sweep count.

Keep in mind that these are general guidelines for terminating insecticide sprays in soybeans. Often time there are many areas of a field that are at different maturity levels than others and these factors should be considered in when making a decision.

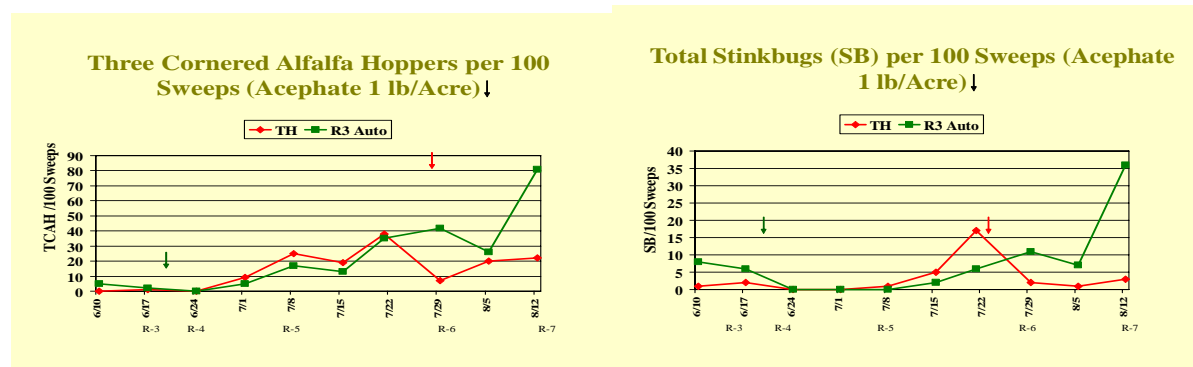
Dectes Stem Borer: Quite a few calls lately about trifoliates wilting up and turning brown. This is often a symptom of infestations of Dectes stem borers. This year we seem to have a much higher and widespread infestations across the state of this pest. The adult is the ash grey colored long horned beetle that I am sure you have been catching in low numbers if you have been sweeping beans this year. The larvae tunnel the petioles and main stem of the plant. This is not a new pest for us but seems to be more frequent this year. Most of the literature states that this pest does not cause significant yield decreases unless the plants lodge. However, because of the severity of the infestations in the bootheel of MO, and AR, and TN there is a multi-state research project going on to further understand this pests impact on yield. There are currently no viable control options for this pest once it infests the plants. There have been only marginal responses of trying to time foliar applications at adult populations.



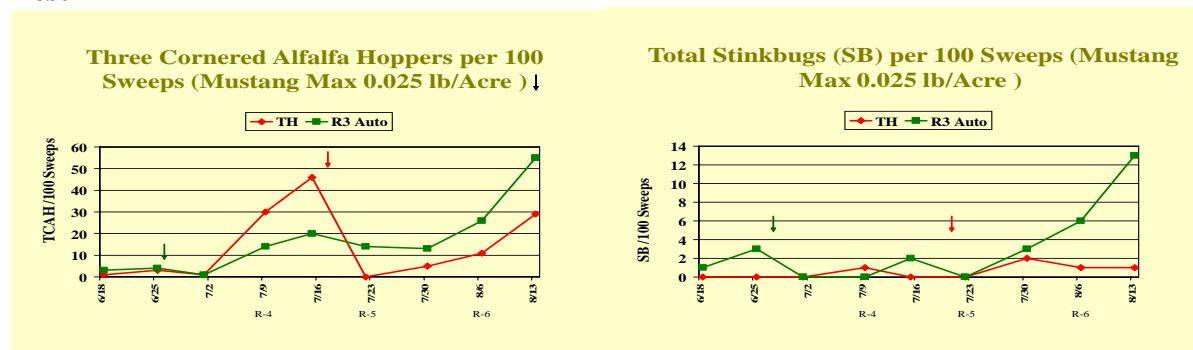
Dr. Gordon Andrews

The following graphs contain data collected from three tests which are being conducted in the Mississippi delta this growing season. The objectives of these tests are to look at insect populations and soybean yields produced by two soybean insect management strategies on large (40-50 acre) fields. Strategy/treatment 1 requires no insecticide treatment until published thresholds are sampled from the fields except for three cornered alfalfa hoppers which will be treated at a lower threshold of 40 adults or 2 nymphs per 100 sweeps. Strategy/treatment 2 requires an application of insecticide at the R-3 stage of development and the use of published insect treatment thresholds for the remainder of the season. Test 1 is near Lake Washington in Washington County, test 2 is near Cruger in Holmes County, and test 3 is near Gunnison in Bolivar County.

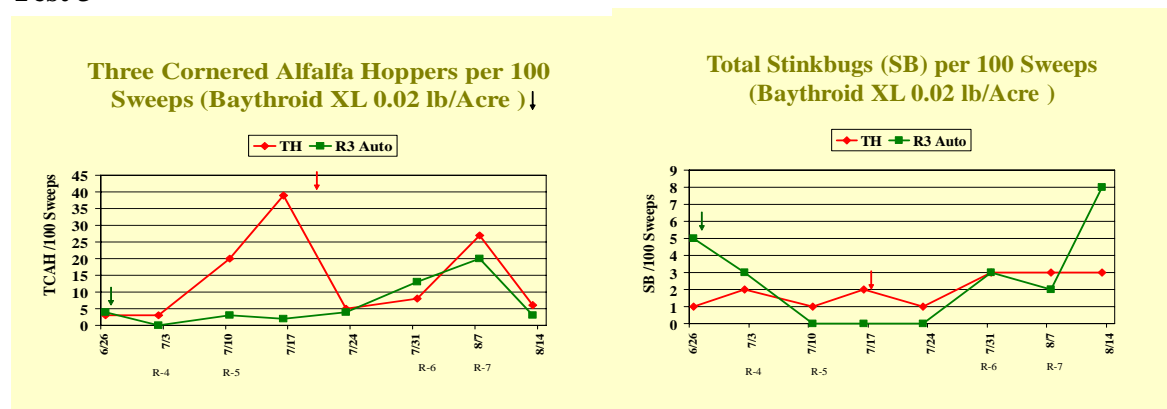
Test 1



Test 2



Test 3



Some consistencies are seen in the three tests. The R-3 treatment did suppress the three cornered alfalfa hopper (TCAH) population early but allowed the population to increase during the time the bean plants were filling pods (R5-R6) except in Test 3 which was which

had the good problem of low insect populations. The treatment threshold controlled the TCAH population better during these growth stages. Stinkbug populations were not affected by the R-3 application but did allow the stinkbug population to increase well above the threshold treatment in the R-6 and R-7 growth periods. This often brings on the spray decision to take out these stinkbugs. If you are not sure the decision is generally to spray.

NE MS Pest Update

Dr. Don Cook

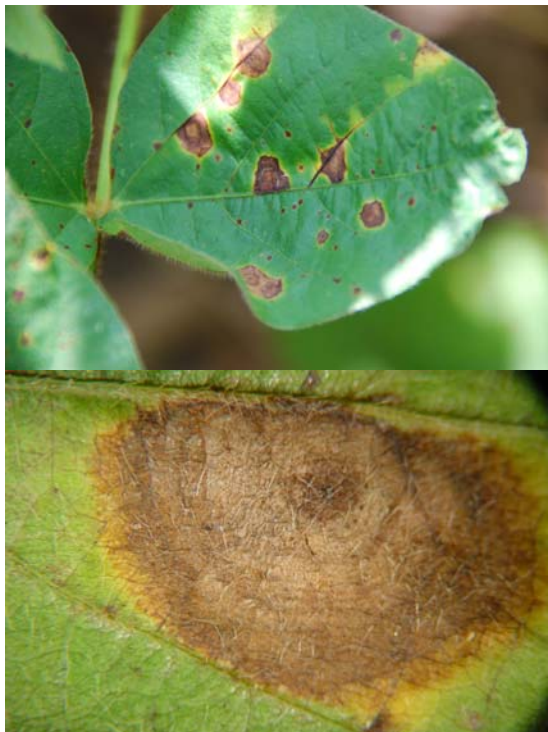
Three-cornered alfalfa hopper and stink bug numbers are increasing in many soybean fields, especially in fields that are at R5 and beyond. In most of the reports I have heard and from what I have seen, these pests are at or above threshold in many cases. Some fields have low numbers of green cloverworms and loopers and there have been several reports of bollworm infestations.

Stink bug/plant bug damaged bolls can still be found in many cotton fields. Some fields have been treated for stink bugs. The trend for higher stink bug numbers/damage should continue in cotton and soybeans as corn continues to dry down and stink bugs move out of those fields.

Late planted corn that is not mature could experience infestations and injury from corn borers. Late corn, especially non *Bt* corn, should be scouted regularly. Corn borer counts in traps have increased recently. The trap at the Verona station had ca. 200 moths, while one trap near Hamilton had over 1,000 moths this past week.

Soybean Disease Update

Dr. Tom Allen



Throughout Mississippi, reports of target spot this season are on the increase. This disease is a foliar, fungal leaf spot (caused by *Corynespora cassiicola*) that should be easy to discriminate from other leaf spot diseases.

Disease symptoms primarily occur on leaves, however, symptoms can also occur on pods, stems, seeds, hypocotyls, and roots. Leaf lesions are rounded, and normally 1/3 of an inch to a little more than a half-inch in size. Oftentimes, a yellow halo will surround lesions (see top photo). One of the most notable diagnostic features of this disease occurs with larger lesions (greater than a half-inch). Larger lesions will have concentric rings of dead leaf tissue, like a target, hence the name “target spot” (see bottom photo close-up). In some cases the spots can coalesce to cover a greater surface area. Leaves with severe infections can drop from the plant prematurely. Lesions that develop along

mid-veins will tend to be more elongated than the normal, round lesions. Disease severity will tend to be greater in fields where the canopy has completely closed. Older lesions can develop fungal fruiting structures that will appear like grains of pepper in the dead tissue.

The target spot fungus survives the winter in decaying soybean plant material. In some cases the fungus can survive for more than two years, even in fallow conditions.

The infection of leaves by the causal agent will only occur when relative humidity is at or above 80%. This is one reason we are seeing more target spot at this point in the season. The recent rain and decreased temperatures we have been experiencing in the past few weeks mean the fungus has a more conducive environment to produce symptoms.

Most of the high yielding, well-adapted determinate soybean varieties are tolerant to infection by the fungus. Based on past experience, rarely is a fungicide application an economical choice. Normally target spot occurs so late in the growing season that control with a fungicide is deemed unnecessary. While target spot occurs almost every year, the fungus is generally considered to be a weak parasite of soybean.

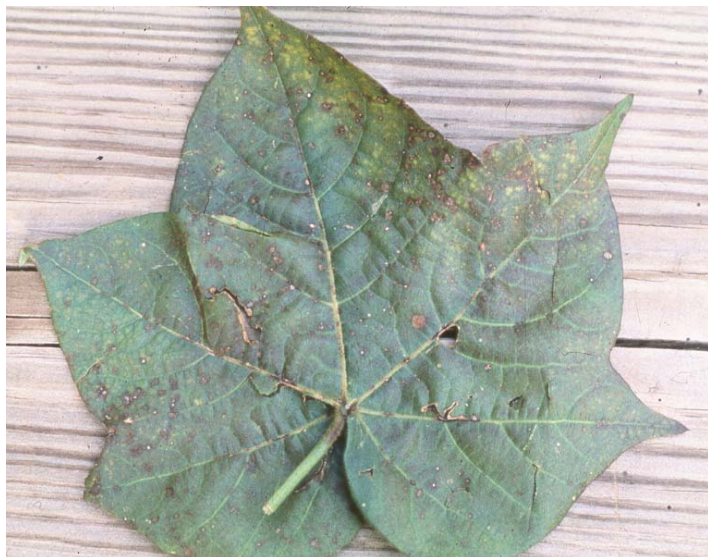
Cotton Update

Dr. Darrin Dodds and Dr. Tom Allen

Crop Report: No news must be good news as the phones have been relatively silent this week. We are heading towards the finish line in terms of pest management in several areas. Rainfall that was received earlier in the week has prompted some growers to make additional applications of plant growth regulator products in an effort to limit cotton growth. However, judging by the plant growth measurements collected from verification fields, it appears as if we are nearing the finish line. Several calls have been received regarding cotton with yellowing in the leaves and leaf spot diseases appearing more frequently as of late. Included are a couple of reports from earlier in the year discussing some of these spot diseases as well as potassium deficiency.

Location	Height		# Nodes		NAWF		Internode Length	
	This Week	Last Week	This Week	Last Week	This Week	Last Week	This Week	Last Week
Greenwood	44.0	46.2	19.8	19.1	0.6	2.5	2.1	2.1
Holly Ridge	50.9	--	19.7	--	1.4	--	2.7	--
Inverness	46.4	49.1	22.5	21.7	1.2	3.1	1.9	1.9
Inverness	54.3	54.1	21.0	21.8	1.1	3.5	2.4	2.6
Minter City	44.0	44.7	20.2	19.4	0.7	2.2	2.1	2.0

Potassium deficiency: Prior to peak bloom, potassium deficiency symptoms are similar to those found on other broadleaf crops. Interveinal chlorosis (yellowing) first occurs on older leaves progressing to necrotic patches that develop at the leaf margins. When rapid dry matter accumulation begins, it can be difficult for the soil to supply adequate potassium to meet the increased daily demand. Late season potassium deficiency symptoms differ from early season symptoms. During and after peak bloom, deficiency symptoms appear on younger mature



leaves in the upper one-third of the plant. Symptoms may appear as slight interveinal chlorosis that can rapidly change to a bronze-orange color. When diagnosing potassium deficiency, one should examine how much potassium is in the soil through soil testing. Tissue testing is also available through MSU to determine how much potassium is in a given leaf. Potassium deficiency may also be confused with Verticillium wilt. If Verticillium is suspected, cut the main stem on the plant in cross section. If the stem is filled with dark streaking discoloration, the problem is most likely Verticillium. If the tissue is clean, the problem is most likely potassium deficiency. Tissue tests cannot always determine the difference between Verticillium wilt and potassium deficiency. Verticillium wilt will plug the main stem vascular tissue preventing proper uptake and distribution of potassium and other nutrients throughout the plant.

Leaf Spot Diseases Revisited: There are several foliar diseases of cotton that all produce symptoms that are very similar in appearance. The causal agents are all different fungi. However, an interesting situation has developed over the past few years throughout the cotton growing regions of the U.S. A disease “complex” has been observed on a more frequent basis later in the growing season. This complex tends to occur when soil nutrients, most notably



potassium, are present in less than acceptable levels in leaf tissue. Generally speaking the two diseases that can become more recognizable when soil nutrients are limiting are Alternaria and Cercospora leaf spot. This fungus generally causes a nondescript, purely cosmetic lesion on leaves that does not require fungicide control. The disease will run its course, and will generally not get worse.

As a general rule of thumb, the leaf spot/foliar diseases of cotton have not been a yield limiting situation in Mississippi in the past. However, depending on the weather conditions at the time of disease development it is possible that some yield loss could occur, albeit very low yield loss potential.

Bollworm/Budworm Traps

**Pheromone Traps Captures – Don Cook, Chris Daves, and Fred Musser.
Week of August 11, 2008.**

County	This week last year Bollworm	Bollworm	This week last year Budworm	Budworm	Beet Armyworm
Calhoun	--	43	--	1	70
Chickasaw	85	131	9	25	53
Grenada	31	-	0	-	-
Hinds	54	37	0	8	1
Lafayette	--	35	--	0	0
Lee	49	61	3	2	16
Lowndes	295	33	3	6	2
Madison	16	12	3	4	17
Monroe	--	0	--	0	2
Noxubee	70	2	5	2	1
Oktibbeha	--	53	--	3	1
Pontotoc	--	32	--	0	1
Prentiss	12	45	3	7	6
Rankin	--	130	--	66	11
Scott	--	40	--	15	2
Union	23	21	3	1	6
Warren	--	29	--	5	73
Webster	--	100	--	0	1

Ryan Jackson USDA Trap line

August 11, 2008

County	This Week last Year Bollworm	Bollworm	This Week last Year Budworm	Budworm
Washington	5	48	0	0
Sharkey	36	128	0	0
Humphreys	3	80	0	0
Yazoo	10	37	0	6
Holmes	12	14	0	9
Leflore	57	79	8	8
Tallahatchie	31	72	3	14
Coahoma	39	124	5	7
Bolivar	20	70	4	6
Sunflower	54	45	18	41

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Extension Row Crop Contact List

State Specialist Contact Information

Darrin Dodds	Cotton Specialist	662 418-1024 cell	dmd76@pss.msstate.edu
Erick Larson	Grain Crop Specialist	662 418-7802 cell	elarson@pss.msstate.edu
Trey Koger	Soybean Specialist	662 207-1604 cell	tkoger@drec.msstate.edu
Chris Daves	Corn Entomology Specialist	662 418-1492 cell	cdaves@ext.msstate.edu
Angus Catchot	Entomology Specialist	662 418-8163 cell	acatchot@ext.msstate.edu
Nathan Buehring	Rice Specialist	662 822-7359 cell	nathanb@ext.msstate.edu
Mike Howell	Peanut Specialist	601 795-1425 cell	mshowell@ext.msstate.edu
Larry Oldham	Soils Specialist	662 312-9250 cell	loldham@pss.msstate.edu
Steve Martin	Extension Economist-Cotton & Rice	662 588-3080 cell	smartin@ext.msstate.edu
John Anderson	Extension Economist-Corn, Soybean, Wheat	662 324-3672 cell	Anderson@agecon.msstate.edu

Area Specialist Contact Information

Don Cook	Northeast MS – Entomology	662 255-1899 cell	dcook@ext.msstate.edu
Tom Allen	Delta – Plant Pathology	662 402-9995 cell	tallen@ext.msstate.edu
Gordon Andrews	Delta - Entomology	662 820-8808 cell	gordona@ext.msstate.edu
Chris Daves	South MS - Entomology	662 418-1492 cell	cdaves@ext.msstate.edu
Dan Poston	Delta - Soybean	662 820-0893 cell	dposton@drec.msstate.edu

Area Agronomist Contact Information

Art Smith	North Delta	901 239-3283 cell	arts@ext.msstate.edu
Jerry Singleton	Central South Delta	662 299-7092 cell	jerrys@ext.msstate.edu
Ernie Flint	Central MS	662 582-1211 cell	ernestf@ext.msstate.edu
Bill Maily	South West	601 540-5582 cell	billm@ext.msstate.edu
Jay Phelps	North	662 488-5500 cell	jayp@ext.mssate.edu
Bill Burdine	North Central	662 456-0517 cell	bburdine@ext.msstate.edu
Charlie Stokes	North East	662 386-7307 cell	charlies@ext.msstate.edu
Dennis Reginelli	East Central	662 418-4480 cell	dennisr@ext.msstate.edu
Randy Smith	South Central	601 813-7166 cell	hsmith@ext.msstate.edu
Mike Howell	South	601 795-1425 cell	mshowell@ext.msstate.edu

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