

Mississippi Crop Situation

May 22, 2008

Mississippi State University Extension Service

Number 9

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This Weeks Planting Report

National Agriculture Statistics Services (Mississippi) Crop Progress for Week Ending 5/18/08

Crop	This Week % Planted	Last Week % Planted	Last Year % Planted	5- Year Average % Planted
Corn Planted	99	99	100	100
Corn Emerged	98	95	100	99
Cotton Planted	37	21	86	85
Cotton Emerged	23	12	59	70
Peanuts Planted	70	35	51	--
Rice Planted	83	81	97	95
Rice Emerged	75	67	91	90
Sorghum Planted	61	47	90	95
Sorghum Emerged	48	42	74	90
Soybeans Planted	74	65	92	90
Soybeans Emerged	64	50	81	83
Winter Wheat Mature	2	--	41	21

2008 Scout Schools

Location	City	Date	Time	Crops Covered	Contact
NE MS Research and Experiment Station	Verona, MS	Tuesday	9:00 a.m.	Cotton, Corn, Soybean, Wheat	Don Cook
		May 27	12:00 p.m.		Angus Catchot
Delta Research and Extension Center	Stoneville, MS	Wednesday	9:00 a.m.	Cotton, Corn, Soybean, Wheat	Gordon Andrews
		May 28	12:00 p.m.		Angus Catchot
Central MS Research and Extension Center	Raymond, MS	Thursday	9:00 a.m.	Cotton, Corn, Soybean, Wheat	Chris Daves
		May 29	12:00 p.m.		Angus Catchot
Clay Lyle Entomology Building	Starkville, MS	Friday	9:00 a.m.	Cotton, Corn, Soybean, Wheat	Angus Catchot
		May 30	12:00 p.m.		

*****Each Scout School is free of charge and will qualify to renew Entomology Consultant Licenses *****



Cotton Insects

Angus Catchot

Bollworm: This is certainly shaping up to be an interesting year. No doubt, this late crop will present some challenges for us as it relates to insect pest. Every year I get lots of calls from media, industry, etc. wanting me to estimate what pest problems and severity we will encounter during the growing season. I think everyone realizes that too many factors influence a pest population to accurately predict the severity of any pest during a given season. However, based on historical trends and weather patterns we can make some educated guesses that are worth hedging your bets on. A good example of how other factors can potentially change the course of what we may expect is: last year I would have told you to brace yourself for a very big bollworm year when corn hit nearly a million acres in MS. We know corn is a huge factor when it comes to increasing bollworm (same as Corn Earworm) numbers that attack cotton and other crops after they cycle through corn. We did not see that nearly to the extent that we expected last year. In fact we had trouble even finding worms in cornfields. This translated into a very normal worm year in cotton despite the fact that we had nearly a million acres of corn. If you remember we had a very uniform corn crop last year planted in a timely manner. When corn reached the most susceptible stage for bollworms (silking), we happened to be between generations and we essentially missed the big “blow up” of the population we were expecting. This year could be different. This year a lot of the corn crop is late, and non-uniform across the state. Also, we are having no trouble finding worms in whorl stage corn in many areas across the state. So once again the stage is set for large bollworm populations to move out of corn and we will need to monitor cotton closely. Also, remember that soybeans are very susceptible to bollworms and we will need to watch them closely as well.

Thrips and Spider Mites: There are a few thrips sprays beginning to go out now but the majority of the crop is either just planted or has not run out of seed treatment yet. With 500K acres of wheat I expect we will see very high thrips numbers like last year especially in the delta region of the state. Reports from Louisiana indicate that many of their fields have been treated and some treated twice for thrips. One thing in our favor is that the late crop will be exposed to much warmer weather, which should let the cotton grow off faster moving us through the thrips window much quicker than in a normal year where cooler weather holds the plants back exasperating injury from thrips. Cotton can recover from thrips injury with time but they can certainly delay the crop even further, which is not good in a year where we are already very late getting this crop in the ground. Also, if you are in a geography that has been experiencing early season spider mites, be very careful treating for thrips. There is no “great” product for controlling thrips that will not flare spider mites but our experience has been that Bidrin and Dimethoate are less likely to flare spider mites than Acephate or a Pyrethroid. Remember that the new label on Bidrin only allows one application of 1 gallon to 40 (0.2 lb ai/acre) prior to pinhead square then a maximum of 1.0 lb ai/acre can be used after bloom with a minimum of 14 days between applications. Our sampling of wild hosts indicates that spider mites are becoming active now. Yesterday we found spider mites in the delta on volunteer soybeans around field borders. Cutleaf Evening Primrose also appears to be a very good host for spider mites.

****Dr. Fred Musser and myself have a PhD student working on spider mites. Please let us know if you begin to see early season spider mites in cotton. We would like to sample these fields.**

Corn Insects

Dr. Chris Daves

Stink Bugs: There has been some concern this week about the presence of stink bugs in older corn scattered around the delta. In some of these fields counts were running as high as 10-12%. Both green and brown stinks bugs are being found with a good many greens showing up in these fields. Our thresholds for stink bugs in corn are based on plant maturity. It is very important to be able to determine the correct vegetative stage, in terms of timing applications for stink bugs. Keep in mind, when determining the vegetative stages in older corn, the lower leaves (1st -3rd) may not present. Stink bug damage during this critical period can result in loss of the entire ear, or what is commonly referred to as “cow-horned” ears. Most of fields are past the first threshold, which is for corn less than 2 feet tall. The other critical growth stage in corn is during ear development or approximately 2 weeks prior to silking. For protection during ear development, treat when 5% of the plants have stink bugs present. Treatments for stink bugs during silking and beyond are not recommended.



Southwestern Corn Borer: In the next new letter we begin reporting the weekly trap captures for SWCB from around the state. The Mississippi Corn Promotion Board funded this work again. We greatly appreciate their support and funding for this project. The 1st generation SWCB usually occurs around the second week of May and the second generation follows approximately 30 days later. I have been running my traps for the past two weeks and we are picking up a number of moths in some locations.

Cotton Agronomics

Dr. Darrin Dodds

Planting Progress: As of May 18, Mississippi Cotton growers have planted approximately 37% of the 2008 crop. The five-year average for planting and the same date is 85%. Cool, wet weather has kept many growers out of the field which has led to the delay in planting as well as several situations where replanting has been necessary.

Late Planted Cotton: Generally speaking, later planted cotton will require fewer days to develop squares and blooms due to the warmer days. However, late planting may result in boll development occurring during cooler conditions, lengthening the number of days needed to reach the open boll stage. Therefore, the number of days for a late planted crop to reach maturity is about the same as that of a mid-planted crop. However, weather conditions in the fall can lead to significant problems with defoliation as well as harvest delays and quality losses. Late planting does not necessarily result in low yield and/or low fiber quality; however, a favorable growing and harvest season will be needed to reach our yield and quality goals.

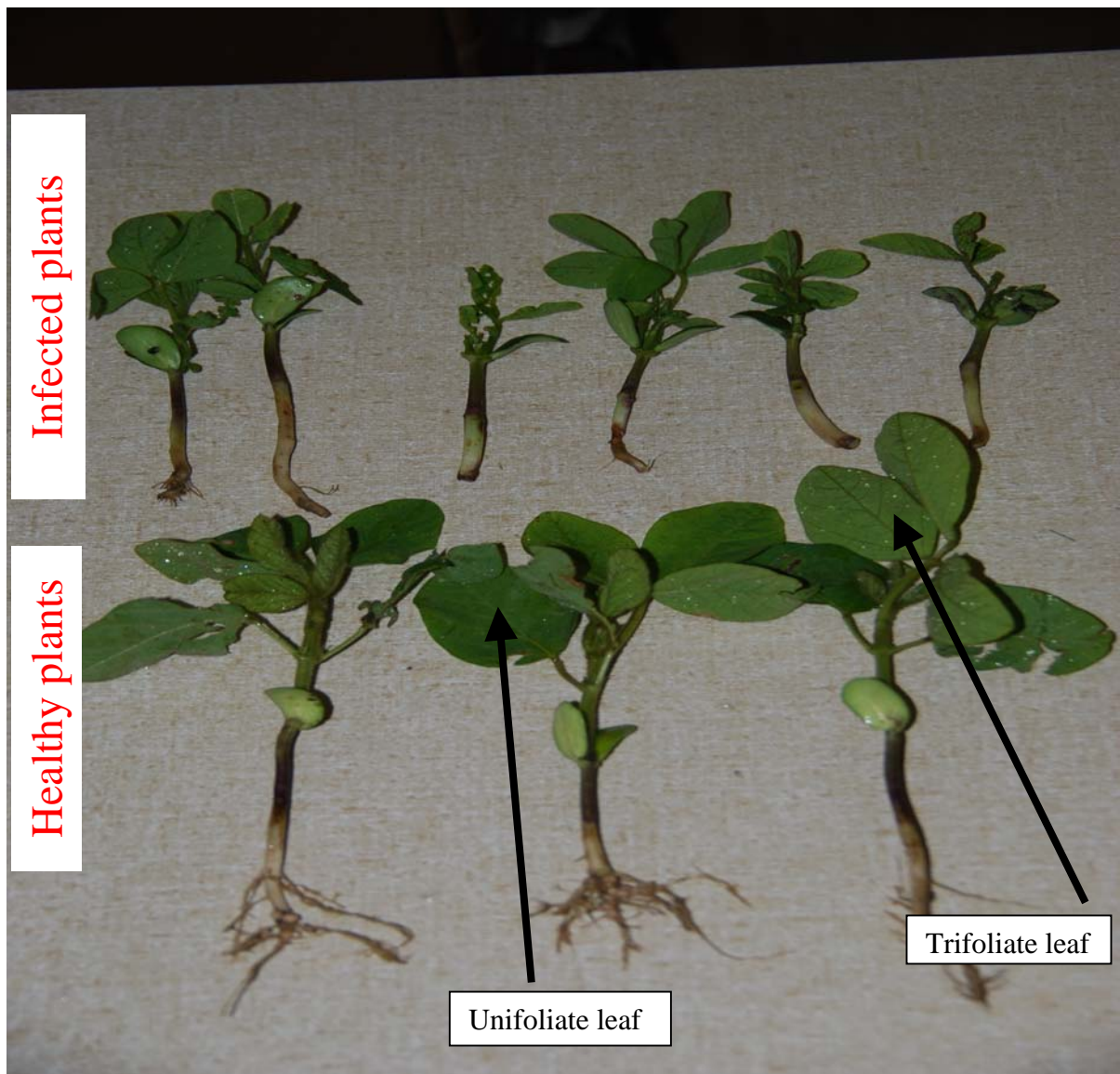
Several calls have come in over the last week regarding variety selection in relation to the late planting date. Essentially, this boils down to managing the crop for earliness. One way to do this is through variety selection. Several growers who were planning on planting a full season variety have decided to plant an earlier maturing variety in order to shorten the interval from planting to harvest. Other production practices that can affect earliness and should be examined include: nitrogen use, plant growth regulator use, and insect control. Due to the late planting date and unknown weather conditions this summer and fall, we need to start managing now for an early crop. Additionally, due to the late planting date, weed control in fields that received burndown applications early (especially those with no residual herbicide) has begun to break. It is very important to start off with a clean crop. Weeds that were not killed in the initial burndown application, or those that have emerged since will compete with seedling cotton for water, light and nutrients. Research from the Delta Research and Extension Center has shown that an application of a non-selective herbicide at planting will often result in a yield benefit that will pay for the cost of the herbicide application at planting. Due to less than favorable spring growing conditions as well as the late planting date, we need to give this crop every advantage that we can to be successful. As always, don't hesitate to call (662-418-1024) if I can be of service.

Soybean Update

Dr. Trey Koger and Tom Allen

Nonlethal Pythium has been showing up in several soybean fields across the state over the last few weeks. Nonlethal *Pythium* is the same identical pathogen as full-blown *Pythium* that often results in plant death. Nonlethal *Pythium*, however, results in infected plants that often do not grow normally or contribute to final yield. The cool and wet conditions that have persisted throughout this planting season are favorable for the development of nonlethal *Pythium*. When present, this disease is often correlated with heavy clay, poorly drained soils. We have found no correlation between the type of fungicide seed treatment used, soybean variety planted, or planting date. In all cases where nonlethal *Pythium* was observed, a fungicide seed treatment was applied.

Symptoms characterizing nonlethal *Pythium* include thick cotyledons that often are twice as thick as normal cotyledons. Other symptoms include aborted terminals and extremely small unifoliate leaves that may not be present at all. Once the terminal is aborted, infected plants initiate axillary by developing multiple stems that arise from the cotyledon region. Infected plants are often characterized by the lack of unifoliate leaves and trifoliate leaves growing directly from the cotyledon region. These trifoliate leaves often are the beginning of multiple stems typical of a plant that has lost its apical dominance (i.e. same appearance as crazy cotton). See picture below of infected plants next to normal, healthy plants. Roots of infected plants often exhibit brown, sunken lesions at the soil line, as well as poor overall development, and small axillary root systems.



Infected plants are often found next to healthy plants. The percentage of infected plants have been less than 20% of the total population in fields containing nonlethal *Pythium*. Since infected plants typically do not go on to develop pods and thus, contribute very little to the final yield, the final stand population should be estimated based on healthy plants only. Plant populations based on healthy plants have been sufficient and have not warranted replanting in any infected field.

It is important to reiterate the presence of this disease has been confined to poorly drained, heavy clay soil situations and is a function of the cool wet spring we have all endured.

Fungicide seed treatments on replanted soybean: Several calls have come in regarding whether or not to apply a fungicide seed treatment on replanted soybean. There is a simple answer to this question. We use the same philosophy with replanted soybean that we use for the first planted seed. **Do not plant soybean seed without a fungicide seed treatment!!** Our common seedling diseases such as *Pythium* are just as active in warm, moist soils (i.e. late May through June) as they are in cool, moist soils. *Pythium*, as well as, other common seedling disease causing agents can be just as devastating on replanted soybean planted in late May as on early planted soybean. Spending less than \$3 dollars on a fungicide seed treatment is the cheapest and best return on the investment of all the crop inputs. Additionally, the last thing we want to do is to have to replant soybean again because of losing a stand to seedling disease.

Plant Disease Sample Submission

Dr. Tom Allen and Clarissa Balbalian

A diagnosis can only be as good as the sample that is submitted. This is something that I firmly believe. Many times a plant sample will arrive in the mail for diagnosis, having sat in the post office over the weekend during a series of 90° days over a holiday, show up on a Tuesday for diagnosis, and the leaf tissue drops out of the envelope in the form of oregano. I call it oregano because the leaf material has dried down and been broken apart during handling. This type of sample has no hope of diagnosis since the organism has dried up and the symptoms have been lost. There are several key issues to consider when sending a sample through the mail, or collecting and transporting a sample for diagnosis when coming to Stoneville. First and foremost, a diseased plant, or plant tissue can be placed in a plastic bag for transport to the lab or even through the mail. However, if you are going to mail a plant sample in a plastic bag that sample has to arrive in the shortest period of time. Mailing it on a Friday simply will not do. Depending on the urgency, and in some cases a recommendation will need to be made within a short period of time, overnight mail is the best method of transport. Even if I am submitting samples to a laboratory for viral diagnosis I overnight the samples. The second thing to remember, do NOT pack the plant material in a plastic bag with a wet paper towel. You want to limit the amount of moisture/humidity in the plastic bag. Using a dry paper towel to soak up any excess moisture is the best way to do this. Now, if you can't get the sample there in a very short period of time, then using a box is the next best method. Wrap the sample in dry newspaper. Do not cram the sample in the box. If it is a root sample you do not need to send excess soil, but do your best when removing the plant from the soil to not tear, cut, or rip off any of the roots.

Sample transport. If you're bringing the sample to me, or taking it to the diagnostic laboratory in Starkville, keep the sample cold. Almost all of us have a cooler, or a water jug in our truck. Package it up, sometimes double bagging is best to make sure there is no water leaking into the bag, which can ruin the sample, and stick it in the cooler. I have also had consultants put the sample in the very top of their water jug for transport. Samples can be maintained under cool conditions for extended periods of time. Leaving it on the floor board of your vehicle with air conditioning blowing on it is the worst way to transport a sample. I know we are all in a hurry but drying the plant or subjecting the plant material to high temperatures on the dashboard or floor board of your truck will only complicate the diagnosis. I have worked with diagnosticians in other states that will simply throw a sample in the trash if it doesn't arrive in great shape. I realize this is an extreme situation, but diagnosing plant diseases can be an art. Even though approximately 90% of plant diseases are caused by fungi it can be difficult to coax that fungus out of the plant material. When cultural methods are used to diagnose a plant disease a well

cared for sample will only make this an easier process. Secondary fungal inhabitants, which often times occur on necrotic areas of diseased leaves will only complicate the cultural methods implemented. Secondary pathogens normally grow faster and will only cloud the issue.

What material should you bring or submit? When in doubt, call ahead. But, as a general rule of thumb, including a “healthy” plant with none of the symptoms you are observing, a plant with some of the symptoms, and a plant that has ONLY the symptoms you are observing will sometimes greatly aid diagnosis. Depending on the disease it can be very important to see a progression of the disease over time. Sending these three key samples can help this situation.

For more information regarding the Mississippi State University Extension Service Plant Disease and Nematode Diagnostic Services please visit <http://msucares.com/pubs/misc/m1230.pdf>. Also, for further information or specific sample collection/submission guidelines refer to <http://msucares.com/pubs/misc/m1562.pdf>. Please keep in mind there is a nominal charge for plant disease and nematode samples.

Peanuts

Mike Howell

As of today, an estimated 80% of the state’s estimated 22,000 acre peanut crop has been planted, and most producers will finish up by the end of the week. There have been some reports of stand problems from several areas due to weather conditions and disease, and several isolated fields have been replanted. Other than this, there have few problems with peanuts this season.

During this stage of the crop, our main focus should be on weed control. It is critical that fields remain as clean as possible during the first six weeks. Weeds that emerge after this cause little yield loss, but may interfere with harvest operations. If you chose not to use a pre-emergence herbicide, cracking sprays need to begin soon. Herbicide applications should be based on weed type and size. Weeds should be targeted while they are still small, less than 2 inches, for best control.

Now is the time to take pegging zone soil samples. The samples should be taken from the top 2 inches of the soil just as you would take a normal soil sample. For most varieties, if you have 500 pounds of calcium in the pegging zone, there is no need for a gypsum application. The exception to this is for large seeded varieties such as AP 3, Georgia O3L, and any of the Virginia type varieties. Calcium levels for these varieties should be near 1,000 pounds.

Soil Fertility

Dr. Larry Oldham

The 250 to 300 % increase in ‘traditional’ fertilizers prices had several ramifications. Some growers worked to improve the efficiency of their fertilizer applications, some cut rates, some changed their crop mix, some incorporated alternatives such as poultry litter, and apparently others eliminated fertilizer applications. As we dry out and warm up, the implications of these decisions will be seen in the fields and new fertilizer decisions may be necessary.

When nutrient deficiencies are suspected and verified, some companies jump at this opportunity with product claims that need fact-checking. One of my old bosses uses the term “FOO FOO juice” on his new blog about soil fertility. He taught me many years ago that sales claims are just that, claims. Some products are legitimate, and have credible research backing. Others are marginal, others are still in progress, and others are still appearing.

Some sales pitches say their products claim more efficient or effective use of nutrients. A recent study in Mississippi found no difference in phosphate or potash uptake in soybeans with one such product. My old boss uses the word “ridiculous” to describe this concept.

The science of foliar nutrient uptake is straight forward: plants cannot absorb sufficient nitrogen, phosphorus, or potassium through their leaves to produce a crop. A recent North Carolina State review and update of [plant nutrient uptake](#) data found that 50 bushels of soybeans will have 188 pounds of N, 40 pounds of phosphate, and 74 pounds of potash in the harvested seed. Another 89 pounds of N, 16 pounds of phosphate, and 74 pounds of potash are in the stems, leaves, and pods. Cotton plants will have 120 pounds of N per acre in the above ground dry matter (seed, lint, and plant parts), and corn about 235 pounds.

When these amounts are needed it is logical that adding a few pounds is not a good way to go. Data from several MSU Experiment Station studies with foliar applied products show cumulatively and optimistically, across crops and years, there may be a 5 to 10% percent chance of a yield response. That is a 90 to 95% chance of NO significant yield response. Remember that fertilizing to meet removal is risky as soil bound nutrients become available throughout the growing season. Additionally, plant uptake is only one pathway for fertilizer nutrients, others are less desirable such as leaching or becoming unavailable to plants through soil reaction.

Always ask sales people for verifiable, third party research with valid statistical analyses concerning the products. Although producers like to hear other experiences, testimonials are just about useless. Several years ago a product was promoted with the claim that so-and-so in another state said he would have not made a cotton crop without applying their stuff. If this really happened, without comparison to one or more other nutrient sources, that grower really has no idea if that product was responsible for his crop. The really sad thing with this situation was this particular product actually had potential to provide plant nutrients. However nothing was invested in competent research, leading to a horrible marketing plan, and consequently the company was lost. The moral of the story is that good products have nothing to fear from objective study. ‘Traditional’ fertilizers are more costly than last year, or even last month, however spending money for FOO FOO juices is not wise. Farmers should concentrate on improving fertilizer efficiency, working with reputable suppliers, and asking questions. Do not hesitate to ask your area or state MSU Extension Service agronomist for additional information about fertilizer or soil amendment options.

Market Briefs

Dr. Steve Martin and Dr. John Anderson

Cotton: Cotton futures prices have traded in a tight \$0.02-\$0.03 range over the last couple of weeks. With a large portion of the fund and speculative money now being spent in other markets, cotton fundamentals are becoming more of a factor. Currently the market is still weighing record carry-over with reduced 2008 acres. As we move through the growing season weather problems or major off-takes from the export market may provide some pricing opportunities. Short term look for the market to trade sideways to only slightly lower going into the end of June USDA planted Acreage report.

Rice: Rice futures are currently trading \$3.00-\$4.00 per cwt off their contract highs. Much of the panic in the rice market caused by rice hoarding outside the U.S. and the Burma cyclone has subsided. However, rice supply and demand fundamentals remain strong. Even a slight increase in 2008 U. S. acres will not have a dramatic effect on prices. Short term, the market will likely trade steady to only slightly lower. Longer term, the market trend appears to be steady to possibly slightly higher depending on the actual amount of planted acres.

2008 Budworm/Bollworm Trap Captures

Ryan Jackson USDA Trap line

May 20, 2008

County	This Week last Year Bollworm	Bollworm	This Week last Year Budworm	Budworm	BAW
Washington	6	40	1	3	-
Sharkey	25	246	1	13	-
Humphreys	3	73	5	28	-
Yazoo	7	53	0	54	-
Holmes	3	65	3	18	-
Leflore	5	130	4	0	-
Tallahatchie	0	112	1	11	-
Coahoma	2	95	1	14	-
Bolivar	10	53	4	0	-
Sunflower	6	62	2	31	-

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