

# Crop Insect Situation

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<http://msucares.com/newsletters/pests/cis/index.html>

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## Crop Situation:

For the week ending August 1<sup>st</sup> cotton was 99% squaring and 91% setting bolls. Corn is 95% dough, and 84% dent, 30% mature, and 1% harvested. Soybeans are 82% setting pods, 25% turning color, 5% shedding leaves, and 1% harvested. Rice is 65% heading. Sorghum is 71% turning color and 5% mature. State average air temperature was 78 degrees (3 degree below normal). Weekly rainfall was 0.75" (0.24" below normal) and 4" soil temperature averaged 85 degrees.

## Insect Situation:

### Cotton:

**Summary:** We are still spraying plant bugs in several places in the state and a few fields have been sprayed for stink bugs. As a whole, budworm/bollworm have been extremely light, although there are some fields being treated in the delta region of the state. We have treated more caterpillar pests in the extreme southern part of the state than we have in several years. Spider mites are building extremely high numbers in parts of the state requiring treatment.

There are quite a few places around the state that are flowered out the top. How long do we need to continue to spray for insects? Consider the following chart below. This chart indicates when a boll is safe from insect damage relative to the number of DD60's accumulated after NAWF 5. Also, note that from white flower to open boll it requires about 850 heat units or approximately 40 days, so foliage needs to be protected from loopers and mites out beyond the time insects will physically damage the boll since the foliage is supplying nutrients to fill the boll.

**Table 1. Approximate number of days past NAWF 5 assuming 21 DD60s per day to terminate insecticide applications for various pests.**

<b>Pest</b>	<b>DD60s</b>	<b>Approx. # of days</b>
Tarnished Plant Bug	250	12
Budworm/Bollworm	350	17
Stink bug	450	21
<i>White Flower to Open Boll</i>	<i>850</i>	<i>40</i>

**Table 2. DD60 accumulation from 7/15/2004 to present at Starkville and Stoneville, MS**

<i>Stoneville, MS</i>					<i>Starkville, MS</i>				
Calendar Date	Air Temp Max (° F)	Air Temp Min (° F)	Accum DD60	DD60	Calendar Date	Air Temp Max (° F)	Air Temp Min (° F)	Accum DD60	DD60
7/15/2004	97	75	25	25	7/15/2004	89	71	20	20
7/16/2004	96	77	26	51	7/16/2004	87	70	18	38
7/17/2004	95	73	20	72	7/17/2004	86	71	18	57
7/18/2004	88	72	19	91	7/18/2004	85	70	17	74
7/19/2004	86	72	20	111	7/19/2004	86	67	16	91
7/20/2004	88	68	19	130	7/20/2004	87	64	15	106
7/21/2004	90	69	19	149	7/21/2004	89	65	17	123
7/22/2004	90	72	23	173	7/22/2004	91	68	19	143
7/23/2004	95	74	25	198	7/23/2004	92	71	21	165
7/24/2004	97	75	24	222	7/24/2004	94	73	23	188
7/25/2004	93	73	23	245	7/25/2004	94	74	23	212
7/26/2004	93	67	11	257	7/26/2004	85	71	17	230
7/27/2004	76	64	14	271	7/27/2004	77	65	10	241
7/28/2004	84	63	15	286	7/28/2004	85	62	13	254
7/29/2004	87	68	20	306	7/29/2004	90	63	16	271
7/30/2004	92	73	22	328	7/30/2004	92	68	20	291
7/31/2004	92	74	23	352	7/31/2004	84	72	18	309
8/1/2004	93	72	22	374	8/1/2004	91	72	21	331
8/2/2004	93	69	20	394	8/2/2004	89	69	19	350
8/3/2004	91	69	.	394	8/3/2004	.	.	.	.
<b>Sum</b>			<b>394</b>		<b>Sum</b>			<b>350</b>	
<b>Average</b>	<b>90.8</b>	<b>70.95</b>	<b>20</b>		<b>Average</b>	<b>88.05</b>	<b>68.74</b>	<b>18</b>	

**Delta Counties - Dr. Gordon Andrews**

This 2004 growing season is unique. Here it is August with no moths, one egg, and no bollworms in the fields observed this week. Plant bugs are consistent. They still seem to do well in wet years. Movement of adult plant bugs into cotton seems to have slowed but they can be found in fields close to corn and soybeans. Spots of spider mites and a few aphids are still trying to get started in places.

There are cool nights (below 68 degrees) predicted for this weekend. Bollworms killed by fungus have been observed on the ground. This fungal activity was initiated by the low sixty temperatures of the last week of July. If it would only kill worms, that would be good. However, some rotten bolls, which do not seem to be damaged, have been observed.

Some fields that have run out of fertilizer and water are blooming high. Other fields without a bottom crop, have received rain, and have not lost their fertilizer are still growing. Many fields will not be able to use the Node above White Flower 5 rule this year. A decision will have to be made about the date that a bloom will produce a pickable boll. This boll will have to be protected for 350 DD60's. The 20<sup>th</sup> of August for the south delta and the 15<sup>th</sup> of August for the north delta is probably as late as you would try to set a bloom. Using normal temperatures at Rolling Fork, MS a bloom set on the 20<sup>th</sup> of August will accumulate 750 DD60's on the 8<sup>th</sup> of October. Using normal temperatures at Batesville, MS will only accumulate a little over 700 by 31 October.

## Boll Weevil Eradication Program- July 8<sup>th</sup> through July 14<sup>th</sup>

A total of 167 boll weevils were captured in cycle 15, which is a 39.2 % increase from the previous cycle, but a 67.8 % decrease from the same period in 2003. The increase in the number of weevils captured occurred in Region 3C and 3N. Region 4 continues to be boll weevil free for the season.

The percentage of fields that captured zero boll weevils ranged from 98.0 % to 100.0 % in the various work units and averaged 99.1 % statewide for cycle 15. For the season, 93.0 % of the fields have remained weevil free with zero boll weevils trapped.

The malathion ULV information shows that through July 28, 1,453 fields (9.2 %) consisting of 94,321 acres have met treatment criteria. These fields have received an average of 2.9 applications.

### Soybeans:

Over the last week bean leaf beetle numbers have increased to extremely high levels in some fields in the state. This is the result of populations from early to mid June that cycled through. Bean leaf beetles lay their eggs in the soil close to the base of the plant and will feed on roots and nitrogen nodules for 3 to 6 weeks before pupating and emerging as adults. Sweep net threshold after bloom is 2 BLB per 25 sweeps, or when defoliation levels reach or exceed 20%, or when 50% of plants show feeding injury on one or more pod per plant. Below are

**Table 3. Insecticide labeled for the control of BLB.**

Insecticide	Amount of Formulation	Pounds Active Ingredient per Acre	Acres one Gallon or 1.0 lb. Dry will treat
<b>carbaryl</b>			
-Sevin 80S	.625 – 1.25 lb.	.5 – 1.0	1.6 - .8
-Sevin XLR 4L	1 – 2 pt.	.5 – 1.0	8 – 4
-Sevin 4F	1 – 2 pt.	.5 – 1.0	8 – 4
<b>cyfluthrin</b>			
-Baythroid 2 EC	1.6 – 2.8 oz.	.025 - .044	80 – 45.5
<b>lambda-cyhalothrin</b>			
-Karate Z 2.08 EC	.96 – 1.6 oz.	.015 - .025	138 – 83
-Warrior 1EC	1.92 – 3.2 oz.	.015 - .025	66.7 - 40
<b>esfenvalerate</b>			
-Asana XL 0.66 EC	5.8 – 9.6 oz.	.03 - .05	22 – 13
<b>methyl parathion</b>			
-PennCap-M 2 EC	2 – 3 pt.	.5 - .75	4 – 2.7
<b>permethrin</b>			
-Ambush 25W	.2 – .4 lb.	.05 - .1	5 – 2.5
-Pounce 3.2 EC	2 – 4 oz.	.05 - .1	64 – 32
<b>thiodicarb</b>			
-Larvin 3.2 F	18 – 30 oz.	.45 - .75	7.1 – 4.3
<b>zeta-cypermethrin</b>			
-Fury 1.5 EC	3 – 4.3 oz.	.035 - .05	43 - 30
-Mustang Max 0.8 EC	2.8 – 4 oz.	.0175 - .025	45.7 - 32

**Source: 2004 Soybean Insect Management Guide, Publication 883.**

**REMINDERS:**

**August 18<sup>th</sup>, 2004** – Cotton Field Day at the Delta REC Center in Stoneville, MS.

**August 19<sup>th</sup>, 2004** – Rice and Soybean Field Day at the Delta REC Center in Stoneville, MS.

**\*Crop Insect Situation Newsletter:** Remember if you know someone who would like to receive this newsletter, they can have their name added to the mailing list by emailing [sparker@entomology.msstate.edu](mailto:sparker@entomology.msstate.edu) or by sending their name and address to: Crop Insect Situation Newsletter, Box 9775, Mississippi State, MS 39762.

\*The Soybean Insect Control Guide has been updated for 2004. There is a temporary .pdf file on the MSU cares website. To access the guide go to <http://www.msucares.com>, then click on **Insects/Plant Diseases/Pesticides**, then click on **Soybean Insects**. There are a lot of changes and updates so be sure and check it out.

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