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# PEST MANAGEMENT REPORT

*NEWS ABOUT INTEGRATED PEST MANAGEMENT IN GLASSCOCK, REAGAN AND UPTON COUNTIES*

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## GENERAL SITUATION

Warm and dry conditions have returned to the area. Cotton ranges from match-head square to second week of bloom. More fields are reaching 1<sup>st</sup> bloom every day, but not all plants in a field are because we shed a lot of the early squares. Cotton aphid numbers are still variable, but they appear to be dropping. Fleahoppers can still be causing problems in some later fields. Stink bugs will be the major pest to watch for in blooming cotton.

## SCOUT SAFETY

If you are treating the field that the scouts are checking for you, please let them know so they will not be exposed to pesticides unnecessarily.

## SCOUTING PROGRAM

The scouts are switching in the fields that are beginning to bloom from fleahopper scouting to worms, eggs, predators and stink bugs.

Someone asked why we stopped doing fruit set after 1<sup>st</sup> bloom. In general, at 1<sup>st</sup> bloom, a plant should have most of the crop you are going to make set on the plant and fleahoppers become less of a problem. There are also multiple sites where squares are being set. The scouts are counting the number of stink bugs per 6 feet in four locations of a field when it begins to bloom.

## FLEAHOPPERS

Fleahoppers ranged from 0-25 per 100 plants and square sets ranged from 60%-92%. Fleahoppers vary across the area and many fields have been sprayed to not allow fleahoppers to take additional small squares after the

weather-related fruit shed. Some fields with lower populations have not been treated and are fruiting adequately. You need to check each field to determine square set and fleahopper population. We have about 2 weeks to set pinhead squares for them to have a decent chance at making a harvestable boll. This means we do not need any additional delay in fruiting.

## COTTON APHIDS

Cotton aphids also vary greatly across fields, but in general, the population seems to be dropping. Fields sprayed for fleahoppers or fleahoppers and aphids have cleared up pretty well. A couple of fields with higher aphid populations sprayed with imidichloprid did not clean up as well. The economic threshold for cotton now is 50 aphids per leaf. You should check leaves at random from the top and middle of the plant and take an average. As everyone knows, they can vary greatly from leaf to leaf so a random sample is essential.

## STINK BUGS

As mentioned in earlier newsletters, we have seen higher stink bug numbers in fields during the pre-bloom stage. Stink bugs are seed feeders so they become a pest after cotton blooms by feeding on small bolls. Lint staining and rotting will occur where stink bugs feed. Scouting for stink bugs should be done by beating plants in 6 feet of row in several locations in a field, checking for stink bug nymphs and adults. You should also sample quarter-sized bolls by cutting down the suture in the boll wall and peeling back the boll wall, looking for calloused feeding sites.

The economic threshold for stink bugs is 1 stink bug per

6 row feet and 20% boll damage.

We are finding the black & orange conchuela stink bugs and a smaller green stink bug.

### **BOLLWORMS**

We had significant bollworm egg-lay about 2 weeks ago and last week numerous small worms were found in several non-Bt fields. Some of these were treated and now the egg-lay has subsided some. We have found an occasional small worm in Bt fields but not any damaging populations.

Egg ranged from 0-5000 per acre or 0-10 per 100 plants. Small worms ranged from 0-5250 or 0-11 per 100 plants.

### **FRUIT SHED**

The weather-related fruit shed was substantial in many area fields. From talking to the experts, the cause was probably twofold. Some of the bigger square shed showed the classic four-bract symptoms that can be caused by excessive heat which we saw before the rainy spell.

We also saw numerous match-head sized squares shed a week to 2 weeks ago, after the 10 days of cloudy weather and excessive moisture in a good part of the area. This is not a very common happening for this area but it is possible. This shed has caused several fields' square sets to drop in the 60-70% range. Some varieties seemed to be affected more than others. The later fruiting varieties lost a higher percent of their squares because they didn't have as many set yet.

### **HERBICIDE DAMAGED COTTON**

Several fields have had leaf burn after being sprayed last week with glyphosate herbicide. These were treated with a generic glyphosate and had additional surfactant and ammonium sulfate added to them. Most people I have talked to feel the addition of these surfactants with some of the glyphosates with surfactant already included caused this damage. The condition of the cotton also likely enhanced damage since the cotton was at a very tender state after all the rain and cloudy weather. Heavier damage is usually along the ends of rows or around obstacles where the sprayer slowed down, but some fields have damage all the way through the field.

Light leaf burn will probably not affect the plant much, but some of the heavier damage is causing leaf loss and may slow development of fruit.

Several producers have used these combinations and types of herbicides with no damage earlier this year or in previous years. Most of the time, we are treating a crop that has tougher leaves.

### **TURNROW MEETINGS**

Tuesday, Jul 27	9:00 am Glasscock Coop
Wednesday, Jul 28	9:00 am Midkiff Coop
Tuesday, Aug 4	9:00 am Glasscock Coop
Wednesday, Aug 5	9:00 am Midkiff Coop

### **HEAT UNITS**

Heat units averaged 20 per day the past week. Heat units since 5-10, 5-20, 5-30, 6-9 are compared with last year and a five year average in the table below.

DATE	5/10	5/20	5/30	6/9
2010	1055	923	751	519
2009	1411	1280	1168	985
5 YEAR AVERAGE	1034	908	801	663

Heat units needed for Cotton Development from the Cotton Physiology Today newsletter

Planting To:	Days	Heat Units
Stand Establishment	4-9	50 to 60
Emergence to 1 <sup>st</sup> Square	27-38	425 to 475
Square to Flower	20-25	300 to 350
Planting to 1 <sup>st</sup> Flower	60-70	775 to 850

### **WEATHER DATA**

Weather data for the past two weeks is included in the table that follows:

DATE	HIGH TEMP	LOW TEMP	RAIN	AVG WIND SPEED	SOIL TEMP
7/8	83	69	.01	5	76
7/9	81	70	.01	5	76
7/10	85	70	.01	7	76
7/11	89	71	0	8	76
7/12	90	71	0	4	77
7/13	91	72	0	6	77
7/14	92	74	0	10	78
7/15	89	73	0	6	79
7/16	92	72	0	5	79
7/17	93	66	0	5	80
7/18	93	66	0	5	80
7/19	91	68	0	6	81
7/20	89	73	0	9	81
7/21	89	71	0	10	81

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