Cotton Outlook OSU

Volume 2 Edition 9 June 27, 2007

Current Crop and Insect Situation:

This year's crop is still slow to develop due to abnormal rainfall and cool temperatures. Fleahopper control is now the primary focus. Stink bugs are on the increase on field edges and in alternate hosts. If your insect management scheme includes a second pinhead/matchhead application some consideration should be made to control this pest. Taking out the first generation of stink bugs in a field may delay the population enough not to warrant further control later on during the season.

The following is an excerpt from "Talking Cotton" by J.C. Banks. J.C.'s weekly update of the Oklahoma cotton season can be found at http://ntokcotton.org/.

In all cotton producing areas in the state, the crop has been showing symptoms of phenoxy herbicide injury. There are a lot of issues (political and otherwise) about in-season use of 2,4-D in cotton producing areas, but the emphasis of this article is how to work through an injury situation in your crop. The first thing to do is registering the drift complaint with the Oklahoma Department of Agriculture. Hopefully they can identify the source of drift and help prevent problems in the future. Next, we need to determine what needs to be done to the crop to allow it to get back into production as soon as possible. There are many misconceptions on the availability of spray-on products that are supposed to help the plant recover, and how much the injury will cause a reduction in yield. First, there are no proven products that will help the plant recover from the injury. Nutrient solutions or specific plant growth regulators are a waste of time and money unless the plant is suffering from a nutrient deficiency prior to the injury. Drift rates of 2,4-D on cotton will always cause visible damage to the cotton and a delay in maturity. Normally this results in a loss of yield primarily due to a delay in fruiting caused be loss of fruit due to exposure, and inadequate time to mature later set bolls. If we have a warm fall and a late frost this effect will be minimized, but it will be more expensive to keep the plant fruiting into the fall. Some work by Dr. Wayne Keeling with Texas A&M at Lubbock has determined that the most significant yield loss results from injury at the 6 to 8 leaf stage, or early squaring stage of cotton. This normally occurs 30 to 40 days from planting. The primary question I have been asked is: " Is it cost effective to continue to take care of the plant, or should I abandon the most severely affected areas". If the cotton is irrigated, and needs an irrigation, you should go ahead and irrigate, to allow the plant to continue to attempt to grow out of the injury. At pinhead square, we usually try to apply an insecticide for control of fleahoppers. Since a severely injured plant will either not produce squares, or if produced they will fall off prior to bloom, my recommendation is to delay the fleahopper spray until the top

new leaf in the terminal of the plant is no longer severely strapped. When the leaf is somewhat normally shaped, even if it has wavy edges a normal square can be produced and expected to produce fruit. The fleahopper application should be made at this time. If the new growth is normal at first bloom, and the plant is growing rapidly, a mepiquat based growth regulator should be used to keep the plant from excessive vegetative growth due to a loss of earlier fruit. This growth regulator should not be applied immediately following the injury, but when the plant has had some time to recover. Growth regulators are somewhat of a stress to the plant, and we do not need to add this stress to the stress of phenoxy injury shortly after the injury occurs. Hopefully the weather will allow a delay in cutout as we approach the end of the season so a maximum number of bolls will be set.

State of Oklahoma cotton.

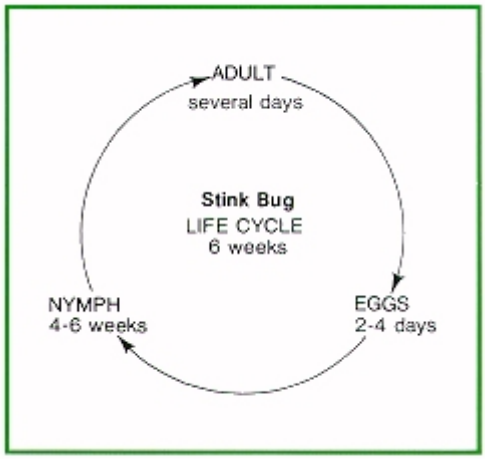
Squaring cotton

Stink Bugs

Green Stink Bug

Conchuela Stink Bug

The two most common stinkbugs in Oklahoma cotton is the Green Stink Bug and Conchuela Stink Bugs.



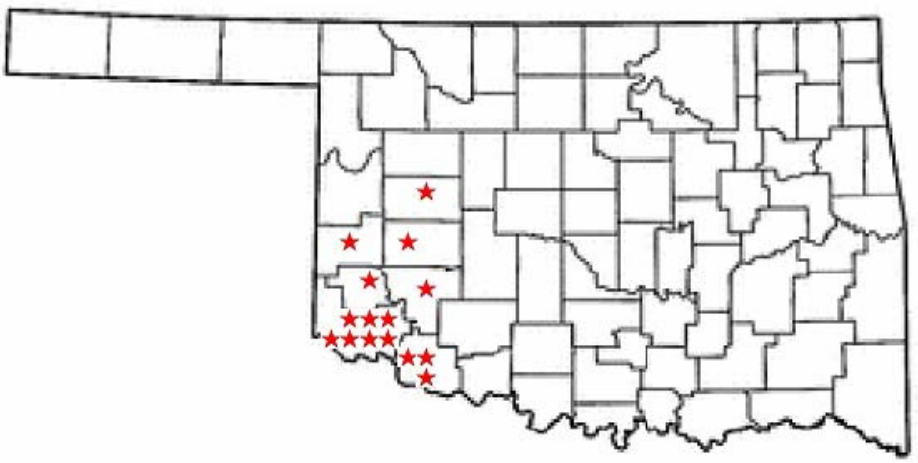
The green stink bug is bright green, while the conchuela stink bug is dark brown to black with a red border and a red spot on the tip of the abdomen. The immature stage of the stink bug is similar to the adult but lacks wings. Stink bug eggs have a distinctive barrel shape and usually are laid in clusters on stems and leaves. These egg masses resemble many barrels lined up in rows. Stink bugs puncture squares and bolls and cause young cotton bolls to drop; however, principal damage is to older bolls. On older bolls lint may be stained and matted, and seeds shrunken by stink bug feeding. Injured locks or bolls may fail to open. Stink bugs may also introduce bacteria and fungi that cause boll rots.

Stinkbug eggs

Stinkbug boll feeding (dark spots)

Photos coutesy of Texas A&M

Extension Cotton Variety Trial Locations

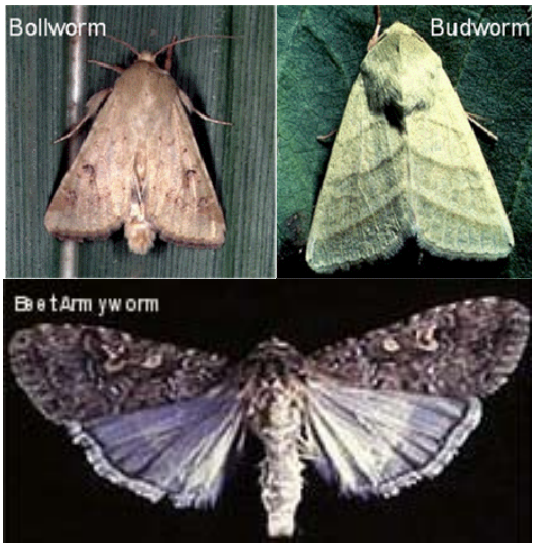


The week ending June 15

Location	Growth stage	Insects
Beckham	5th Truleaf	1% Fleahopper
Custer	6th Truleaf	12% Fleahopper
Greer	5th Truleaf	2% Fleahopper
Jackson	4th Truleaf	< 1 Thrip per plant
Jackson	4th Truleaf	< 1 Thrip per plant
Jackson	5th Truleaf	1% Fleahopper
Jackson	5th Truleaf	1% Fleahopper
Jackson	5th Truleaf	1% Fleahopper
Jackson	5th Truleaf	1% Fleahopper
Harmon	6th TruLeaf	32% Fleahopper
Kiowa	5th Truleaf	1% Fleahopper
Tillman	4th Truleaf	1% Fleahopper
Tillman	6th Truleaf	1% Fleahopper
Tillman	6th Truleaf 5 % Pinhead Squares	8% Fleahopper
Washita	4th Truleaf	< 1 Thrip per plant

MOTH TRAPS:

Week of	Bollworm			
	Altus	Hollis	Manchester	Tipton
June 9	34	23	12	115
June 16	22	18	0	89
June 23	54	12	30	68
	Budworm			
	Altus	Hollis	Manchester	Tipton
June 9	3	0	0	16
June 16	6	4	0	14
June 23	8	0	0	8
	Beet Armyworm			
	Altus	Hollis	Manchester	Tipton
June 9	7	9	1	11
June 16	10	10	2	17
June 23	8	6	2	7



Photos courtesy of Texas A&M

GROWING DEGREE DAY:

A Growing Degree Day (GDD) is defined as 24 hours of time in which the temperature is one degree above the lower temperature threshold (60°F - 100°F). By using this range and the high and low temperatures for each day of the growing season, the amount of heat available to the cotton, measured in day degrees, can be calculated. The heat unit data is collected from ***Mesonet weather network*** **weekly**.

Cotton Growth Timetable

Stage of Growth	GDD	Days
Emergence	50 - 60	3 – 4
Pinhead Square	425 - 500	25 - 45
First Bloom	725 - 825	41 - 67
Open Boll	1575 - 1925	102 -127
Defoliation	2150 - 2300	120 -140

FOR FURTHER INFORMATION CONTACT:

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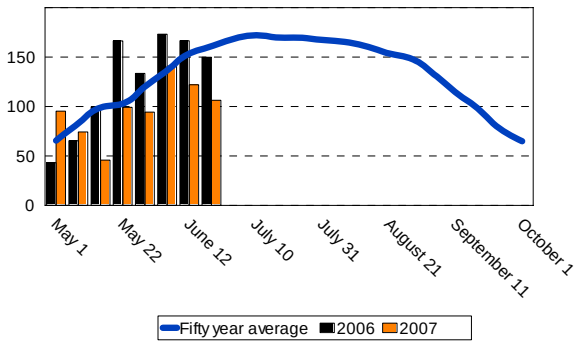
PLEASE NOTE

The "Cotton Outlook" will not be published next week due to the holiday schedule.

Altus

Growing Degree Days (GDD)

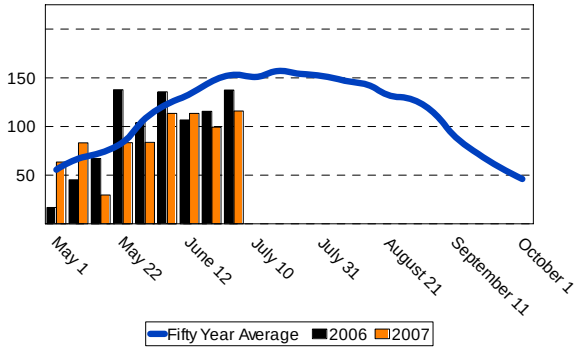
Week of	50 year	2006	2007
May 1	65.5	43.1	95.3
May 8	82.9	65.3	74.2
May 15	98.6	99.7	45.8
May 22	102.9	166.3	99.2
May 29	120.0	133.4	94.2
June 5	134.4	173.1	140.7
June 12	153.4	166.4	121.9
June 19	160.7	149.7	106.3
Total	**918.4**	**997.0**	**777.6**



Blackwell

Growing Degree Days (GDD)

Week of	50 year	2006	2007
May 1	55.6	16.8	63.4
May 8	67.5	45.2	83.1
May 15	73.2	67.1	29.6
May 22	84.6	137.8	83.3
May 29	108.8	104.1	83.6
June 5	133.6	106.7	113.4
June 12	146.4	115.6	99.3
June 19	153.4	137.4	115.9
Total	**823.1**	**730.7**	**671.6**



Hobart

Growing Degree Days (GDD)

Week of	50 year	2006	2007
May 1	62.3	31.4	76.2
May 8	76.2	22.4	65.4
May 15	84.9	86.2	32.3
May 22	94.7	164.2	86.4
May 29	119.8	115.3	76.7
June 5	136.9	171.7	122.3
June 12	145.9	142.9	112.7
June 19	153.6	131.6	110.4
Total	**874.3**	**865.7**	**682.4**