



Current Crop and Insect Situation:

Seasonal weather has finally returned to Oklahoma. That is good news for this year's cotton crop. Although development still lags behind normal years, heat is what this crop needs. Aphids are beginning to appear in more fields. Prior to applying control measures determine if the infestation is heavy enough.

Growth regulators should be an important part of this year's management strategy. If you have any questions please call:

J.C. Banks 580 482-2120 or
Shane Osborne 580-482-2633

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/>.

Rain is still the story in most of the cotton producing areas. Excessive rainfall and cooler temperatures have decreased heat unit accumulation, and cotton development is slightly behind where it should be this year. When the clouds go away and temperature turns hot, the plants will really try to go through a growth spurt. For this reason, we will be recommending a growth regulator when the warm weather arrives. Usually, in Oklahoma we use PGR's primarily on irrigated areas, but this year we have had enough water in

dryland areas that the cotton will likely benefit from PGR applications. Well drained areas that are not as waterlogged will initiate growth quickly so the growth regulator should be in the plant more quickly than plants in areas that have been stressed by too much water. Generally we recommend 4 to 6 ounces of the Pix based chemicals or 2 ounces of Stance prior to bloom on non-stressed cotton. At bloom, we recommend 8 ounces of Pix or 3 ounces of Stance. These treatments should be evaluated again at 10 to 14 days following the first treatment, and if growth continues to be rapid, another treatment of slightly higher rates may be required. Late squaring and early bloom is the correct time to apply growth regulators. As the plant gets larger, these treatments will have a decreasing effect. In mid to late August growth should already have been controlled, if the cotton is too growthy at this time, it is difficult to control it with growth regulators.

State of Oklahoma cotton.



Prebloom cotton

Cotton Aphids



Cotton aphids are small, soft-bodied insects commonly referred to as “plant lice”. Aphids occasionally occur on cotton in such high numbers that control measures should be implemented. Build ups are localized and usually occur after cool damp weather or during the season after the use of certain insecticides. The insects are found on the underside of leaves and along the terminal stem, causing misshapen leaves with a downward curl and stunted plants. The insect damages cotton directly by sucking juices from the plant and indirectly by secreting honeydew.

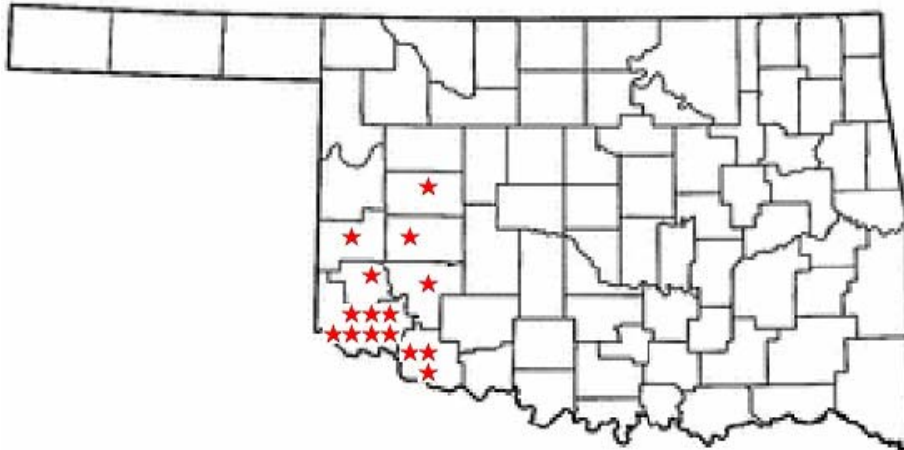
Light aphid populations on prebloom cotton often do not generate any obvious damage symptoms. Heavy aphid populations create the same symptoms as observed on seedling cotton (cupped, crinkled leaves, honeydew accumulations and in extreme cases, limited defoliation). Heavy aphid populations at this time can decrease the size of bolls, stunt plant growth, and may increase square and boll shedding. Please contact your local county extension office for current information.



Photo by Jack Kelly Clark



Extension Cotton Variety Trial Locations



The week ending June 15

Location	Growth stage	Insects
Beckham	Matchhead squares	4% Fleahopper
Custer	Matchhead squares	16% Fleahopper
Greer	1/3 Grown squares	6% Fleahopper
Jackson	Matchhead squares	1 % Fleahopper
Jackson	Matchhead squares	1 % Fleahopper
Jackson	Matchhead squares	1% Fleahopper
Jackson	Matchhead squares	1% Fleahopper
Jackson	1/3 Grown squares	6% Fleahopper
Jackson	1/3 Grown squares	4% Fleahopper
Harmon	1/3 Grown squares	1% Fleahopper
Kiowa	Terminated due to flooding	
Tillman	Matchhead squares	4% Fleahopper
Tillman	1/3 Grown squares	24% Fleahopper
Tillman	Matchhead squares	2% Fleahopper
Washita	Matchhead squares	6% Fleahopper

MOTH TRAPS:

Week of	Bollworm			
	Altus	Hollis	Manchester ¹	Tipton
June 9	34	23	12	115
June 16	22	18	0	89
June 23	54	12	30	68
June 30	84	16	2	117
July 7	119	64	8	124
	Budworm			
	Altus	Hollis	Manchester	Tipton
June 9	3	0	0	16
June 16	6	4	0	14
June 23	8	0	0	8
June 30	0	1	0	6
July 7	11	2	0	9
	Beet Armyworm			
	Altus	Hollis	Manchester	Tipton
June 9	7	9	1	11
June 16	10	10	2	17
June 23	8	6	2	7
June 30	0	2	1	4
July 7	18	9	2	5

¹Traps established and maintained by Scott Price.



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

<u>Stage of Growth</u>	<u>GDD</u>	<u>Days</u>
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

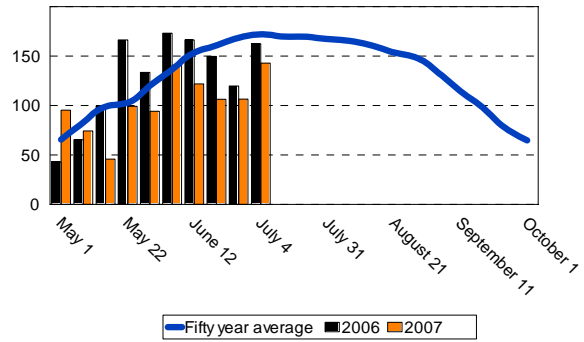
FOR FURTHER INFORMATION CONTACT:

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Altus

Growing Degree Days (GDD)

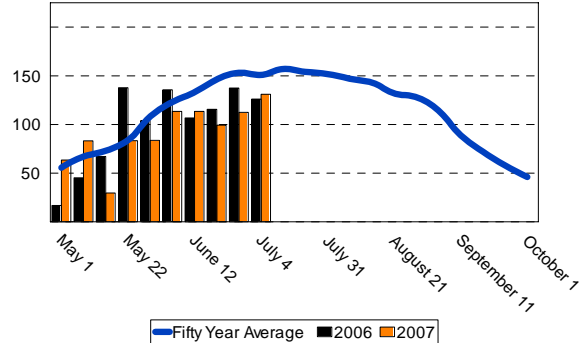
Week of	50 year	2006	2007
May 1	65.5	43.1	95.3
May 8	82.9	65.3	74.2
May 15	98.6	99.7	45.8
May 22	102.9	166.3	99.2
May 29	120.0	133.4	94.2
June 5	134.4	173.1	140.7
June 12	153.4	166.4	121.9
June 19	160.7	149.7	106.3
June 26	168.4	119.7	117.4
July 4	171.9	162.4	142.8
Total	1,258.7	1,279.1	1,037.8



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	123.4	135.7	113.4
June 12	133.6	106.7	99.3
June 19	146.4	115.6	115.9
June 26	153.4	137.4	112.4
July 4	151.2	126.1	131.1
Total	1,097.7	992.5	915.1



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
June 26	162.4	153.7	117.2
July 3	163.5	148.1	133.4
Total	1,200.2	1,167.5	933.0

