



Current Crop and Insect Situation:

Cotton growth continues to do exceptionally well. This year's crop although late shows remarkable potential. Aphids numbers are dropping in all fields that have been monitored. Jerry Stoll of Tillman County as reported he has had up to 80% reduction of aphid numbers in fields that were not treated. Beneficial counts are increasing and also the cotton aphid fungus *Neozygites fresenii* has been observed in 2 fields. To find out more about this fungus please go to the website <http://www.uark.edu/misc/aphid/project/project.htm>

The window for the most effective use of growth regulators is fast approaching. If you have any questions please call:

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

State of Oklahoma Cotton.



Blooming cotton.

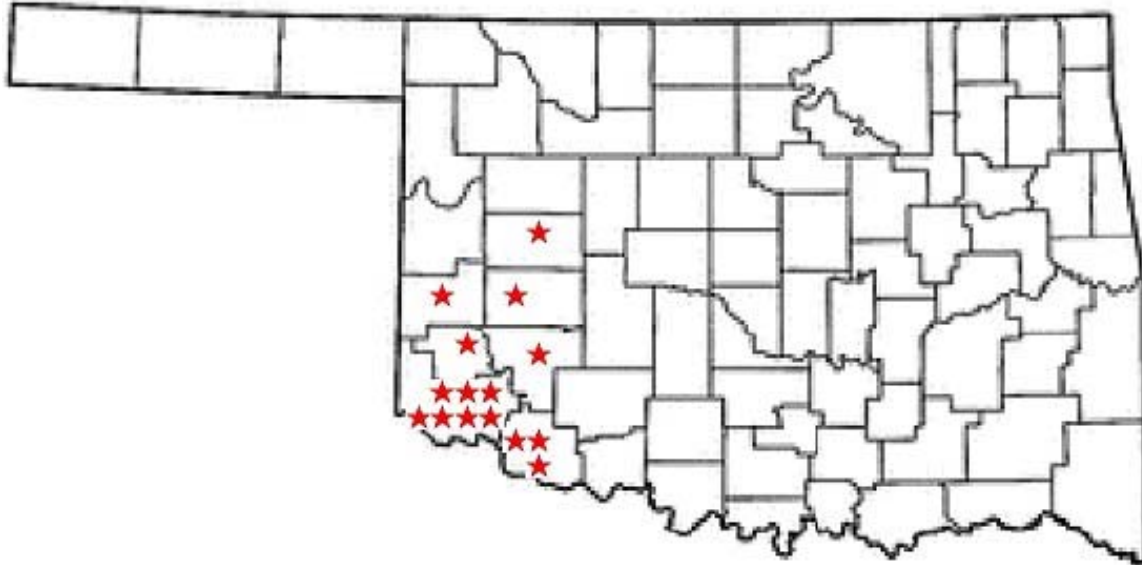
This week's "Talking Cotton" is written by J.C. Banks. A weekly update of the Oklahoma cotton season can be found at <http://ntokcotton.org/>.

Jerry Goodson and I have been getting a lot of calls about aphid control problems on cotton. Some applications have not been effective for aphid control, and resprays of the same product have not helped much. We have inquired into submitting for a section 18 emergency exemption for Furadan, but with the new classes of compounds available, chances are remote for having Furadan available. We have discussed this with other extension entomologists in neighboring states and they have given us some suggestions for dealing with this problem. We really appreciate the assistance of Dr. Roger Leonard, Extension Entomologist for Louisiana for his help. First, it is important that we take advantage of a population of beneficial insects. Jerry has seen high populations of beneficials in areas that have not been sprayed. Aphid populations may be high, but beneficial populations are building. Many times the beneficials will overpower the aphids if given time. Aphids do most of their damage to the cotton when the bolls start opening and lint is contaminated with honeydew. We can tolerate moderately high aphids if beneficials are building, so this should be considered prior to starting a chemical aphid control program.

Aphid populations seem to cycle, they build up, peak, and then the population are infested with a fungus that will decrease the population. When the new Neonicotinoid class of insecticides for control of aphids was first introduced, producers were getting control even if they cut rates to the lowest recommended rate, and these rates became the accepted rates for control. Recently these rates quit working as effectively as before. Also producers who have used Orthene or pyrethroids, or who have mixed low rates of the neonicotinoid products with their Roundup have caused an aphid population explosion that is difficult to control. If chemical control is warranted best success in this area involves use of Intruder at 1 oz./A or Centric at 2 oz./A with application volume of at least 3 gallons per acre if applied by air or 5

gallons per acre if ground applied. Under heavy aphid pressure 5 gallons per acre or 10 gallons per acre spray volume is recommended. A silicone based metholated seed oil should be used to increase deposition on the leaves. The high rate is needed because a low rate applied as the first application will make control more difficult if a second spray is needed. The key to aphid control is to try to let beneficials and the aphid fungus control the population, but if control is needed, concentrate on highest label rates, sufficient spray volume, and a good surfactant to ensure the best possible control.

Extension Cotton Variety Trial Locations



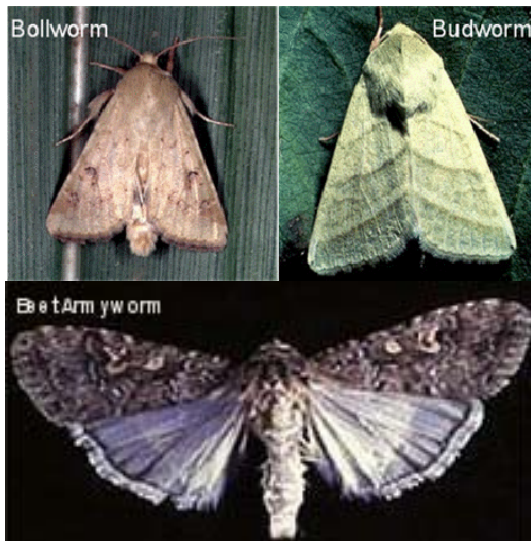
The week ending July 27

Location	Growth stage	Insects
Beckham	6 NAWF	2% Bollworm damage
Custer	7 NAWF	2% Bollworm damage
Greer	6 NAWF	1% Bollworm damage Few Aphids
Jackson	7 NAWF	1% Bollworm damage Few Aphids
Jackson	7 NAWF	2% Bollworm damage Light-Heavy Aphids
Jackson	6 NAWF	4% Bollworm damage Light-Heavy Aphids
Jackson	6 NAWF	6% Bollworm damage Light-Medium Aphids
Jackson	7 NAWF	2% Bollworm damage Light-Medium Aphids
Jackson	7 NAWF	1% Bollworm damage Light-Medium Aphids
Harmon	6 NAWF	1% Bollworm damage
Kiowa	Terminated	
Tillman	7 NAWF	4% Bollworm damage Few Aphids 1% Beet Armyworm egg mass
Tillman	7 NAWF	2% Bollworm damage Few Aphids
Tillman	7 NAWF	2% Bollworm damage Few Aphids 3% Beet Armyworm egg mass 3 % Stink bugs
Washita	6 NAWF	2% Bollworm damage Few Aphids

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
July 14	49	21	2	91
July 21	31	33	0	59
July 28	65	81	0	137
	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
July 14	6	4	0	11
July 21	8	4	0	12
July 28	4	2	0	18
	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
July 14	0	0	0	4
July 21	0	0	0	14
July 28	11	4	0	21

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

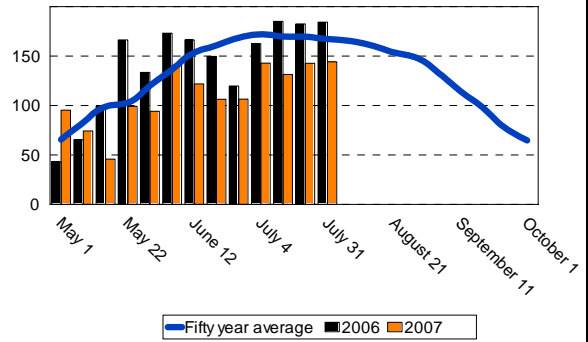
FOR FURTHER INFORMATION CONTACT:

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Altus

Growing Degree Days (GDD)

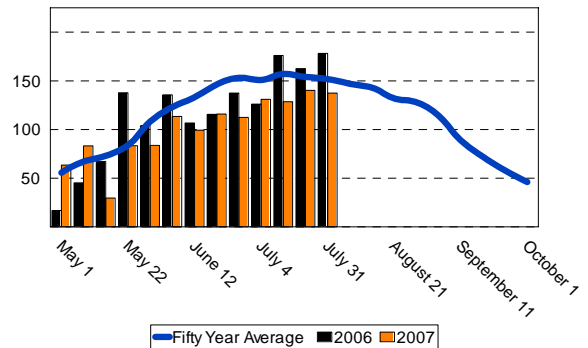
<u>Week of</u>	<u>50 year</u>	<u>2006</u>	<u>2007</u>
May 1	65.5	43.1	95.3
May 8	82.9	65.3	74.2
May 15	98.6	99.7	45.8
May 22	102.9	166.3	99.2
May 29	120.0	133.4	94.2
June 5	134.4	173.1	140.7
June 12	153.4	166.4	121.9
June 19	160.7	149.7	106.3
June 26	168.4	119.7	117.4
July 4	171.9	162.4	142.8
July 11	169.7	185.1	131.3
July 18	169.5	182.5	142.6
July 25	167.2	184.2	144.1
Total	1,765.1	1,830.9	1,455.8



Blackwell

Growing Degree Days (GDD)

<u>Week of</u>	<u>50 year</u>	<u>2006</u>	<u>2007</u>
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
July 11	157.1	176.1	128.6
July 18	154.4	162.7	140.2
July 25	152.5	178.3	137.5
Total	1,561.7	1,509.6	1,321.4



Hobart

Growing Degree Days (GDD)

<u>Week of</u>	<u>50 year</u>	<u>2006</u>	<u>2007</u>
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 4	163.5	148.1	133.4
July 11	162.9	184.9	128.4
July 18	164.1	180.8	142.1
July 25	164.2	185.4	140.4
Total	1,691.4	1,718.6	1,343.9

