



## Stink Bugs - Pests to Avoid in August

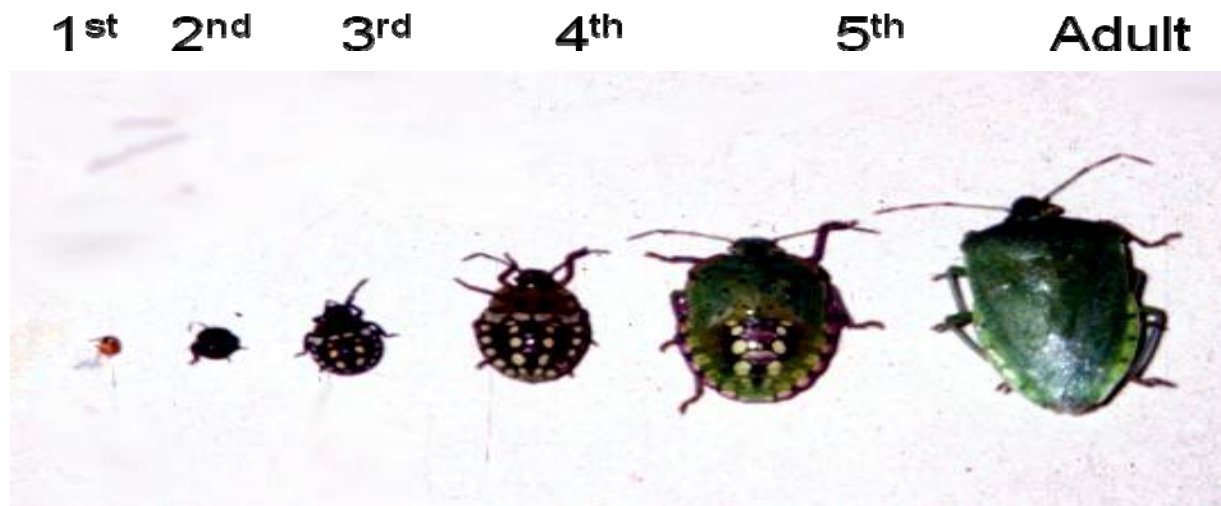
**P**ast years focused on bollworms, budworms and boll weevils. Those pest insects currently are not a threat due to biotechnology and the boll weevil eradication program. When those pests were removed others took their place in the cotton field and changed the dynamics of cotton pest control. One of the pests that was present but never caused significant damage is the stink bug. These were formerly controlled with the sprays applied for other pests, but now those applications are not made.

Stink bugs in cotton are a current threat when bolls begin to form and cause significant quality as well as yield loss. There are three main types of stink bugs found in cotton, the green stink bug, brown stink bug and southern green stink bug (figure 1).



**Figure 1 – Green, Brown, and Southern Green Stink Bugs.**

These three Stink Bugs have a similar life cycle which includes the egg, nymphs (5 instars) and adult stages. They have several generations each year and aggregate around weeds. They will often migrate to cotton from peanuts, corn and other crops established before cotton is planted. They are most active at night.



**Figure 2 – Stink Bug Lifecycle nymph through adult stages.**

Following the egg hatch the first instar is a small stink bug that is not fully developed and this nymphal stage lasts about 4 days. It is followed by the 2nd – 5th instars which lasts approximately 4-5, 5, 7-8 and 12 days respectively. The adults live about 30-60 days. During the life of the stink bug they can attack cotton and feed on cotton bolls. Their feeding is limited to bolls smaller than the diameter of a quarter. Bolls larger than a quarter are too hard for the stink bugs to puncture.



**Figure 3 – Bolls larger than a quarter are not susceptible to stink bug damage.**

The damage threshold is normally considered to be 20% internally damaged bolls. Weeks 3, 4, and 5 of bloom are the most critical and weeks 1, 2 and 6 are less critical. Often the puncture and resulting damage is from pathogens such as boll rot carried and transmitted by the bug.



**Figure 4 – Stink Bug internal damage and resulting decay of the boll after feeding.**

Stink Bugs can be controlled with the use of a number of chemicals approved on cotton including Bidrin, Vydate, Orthene and pyrethroid products. The Brown Stink bug requires the use of organophosphate compounds for control. Consult with your OSU County Agricultural Educator or chemical supplier for specific products and their proper use for the control of stink bugs in cotton.

Moth Trap Results: Moths are trapped at the locations listed below regarding Bollworm, Budworm and Beet Armyworm moths. This allows us to estimate when the peak egg lay will occur to project proper control timing for each pest.

**Moth Traps:**

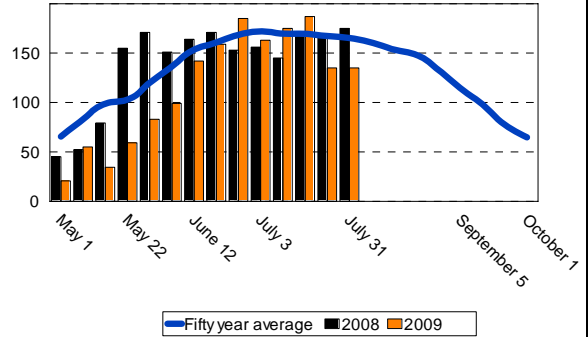
Week of	Bollworm			
	Altus	Hollis	Manchester	Tipton
June 5	3	17	NA	7
June 12	2	3	NA	5
June 19	0	TD	NA	3
June 26			2	
July 3			7	
July 10	0	70	NA	256
July 17	0	34	NA	45
July 24	13	135	0	222
July 31	20	125	0	235
Week of	Budworm			
	Altus	Hollis	Manchester	Tipton
June 5	0	0	NA	2
June 12	0	0	NA	0
June 19	0	0	NA	0
June 26			0	
July 3			1	
July 10	0	3	NA	0
July 17	0	0	NA	0
July 24	2	10	0	5
July 31	0	0	0	3
Week of	Beet Armyworm			
	Altus	Hollis	Manchester	Tipton
June 5	0	0	NA	0
June 12	0	0	NA	0
June 19	0	0	NA	0
June 26	NA	NA	2	NA
July 3	NA	NA	0	NA
July 10	NA	NA	0	NA
July 17	NA	NA	0	NA
July 24	NA	NA	0	NA
July 31	0	0	0	0

# GROWING DEGREE DAY:

## Altus

Growing Degree Days (GDD)

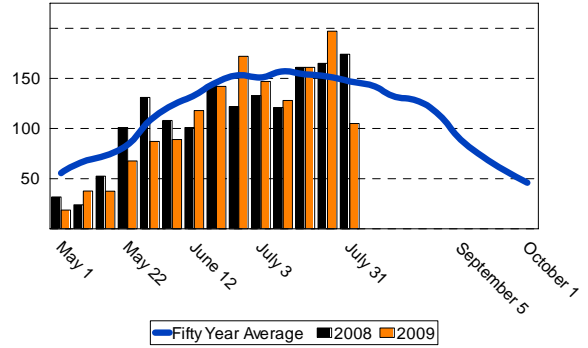
Week of	50 year	2008	2009
May 1	65	45	28
May 8	82	52	68
May 15	98	79	48
May 22	102	155	85
May 29	120	171	100
June 5	134	151	99
June 12	153	164	142
June 19	161	171	159
June 26	168	153	185
July 3	172	156	163
July 10	170	145	175
July 17	170	169	187
July 24	167	169	135
July 31	165	175	135
<b>Total</b>	<b>1927</b>	<b>1955</b>	<b>1709</b>



## Blackwell

Growing Degree Days (GDD)

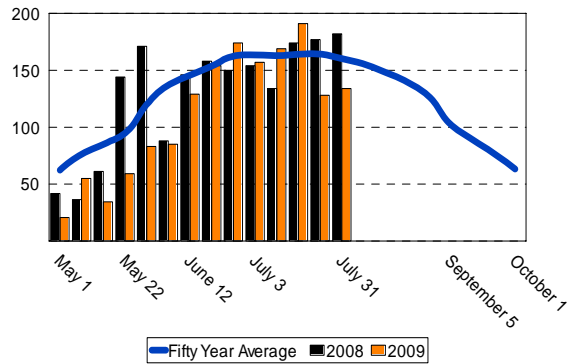
Week of	50 year	2008	2009
May 1	55	31	19
May 8	67	23	38
May 15	73	52	38
May 22	84	101	68
May 29	109	131	87
June 5	123	108	89
June 12	133	101	118
June 19	146	144	142
June 26	153	122	172
July 3	151	133	147
July 10	157	121	128
July 17	154	161	161
July 24	152	165	197
July 31	147	174	105
<b>Total</b>	<b>1704</b>	<b>1567</b>	<b>1509</b>



## Hobart

Growing Degree Days (GDD)

Week of	50 year	2008	2009
May 1	62	41	21
May 8	76	36	55
May 15	84	61	34
May 22	94	144	59
May 29	120	171	83
June 5	137	88	85
June 12	146	146	129
June 19	154	158	154
June 26	162	150	174
July 3	164	154	157
July 10	163	134	169
July 17	164	174	191
July 24	164	177	128
July 31	160	182	134
<b>Total</b>	<b>1850</b>	<b>1816</b>	<b>1573</b>



**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. We have posted the current GDD value compared to the historical average at the end of this report. The GDD for Altus, Blackwell and Hobart will be updated weekly through the growing season.

#### 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

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