



STINK BUGS IN COTTON

As a reminder, feeding on bolls may cause boll shed and/or seed damage, lint staining and yield reductions. When making management decisions on whether to treat for stink bugs the following should be considered; Examine 6 row feet of cotton in several locations in the field. **When there is an average of one or more stink bugs per 6 feet of row, feeding can cause excessive loss of squares and small bolls and may stain lint. Additionally, at least 50 small bolls (the diameter of a quarter and smaller) should be examined. If 20 percent of the small bolls have evidence of internal feeding (callous growth on internal boll wall and/or stained lint) and stink bugs are present then treatment should be considered. Bolls larger than a quarter harden enough to prevent Stink Bug feeding. Focus on the squares and small bolls when considering control.** Stink bugs often are clumped near field margins. Spot treatment provides effective control when this situation exists. Second through fifth instar stink bug nymphs and adults can damage bolls. Fourth and fifth instars can cause the same level of damage as adults. Shown below are two of the more commonly found stink bugs that infest cotton in our area as well as the damage that they can do to the fruit. (Figure 3 and 4)

Information developed by Dr. Al Bell, USDA Pathologist at College Station shows that most boll rot and seed staining and hard lock are a result of insect feeding

punctures. Those punctures can be made by Fleahoppers as well as Stink Bugs. If you have a high incidence of boll disease you probably had some feeding on the boll by one of the insects.



Figure 1 – Lint and Seed Staining on a cotton boll punctured by Stink Bugs or Fleahoppers



Figure 2 – Callus inside boll, caused by Stink Bug Feeding



Figure 3 – Brown Stink Bug



Figure 4 – Green Stink Bug

GRASSHOPPERS

I have seen numerous grasshoppers in SW Oklahoma this year and many people are asking about control. In fact Jerry Stoll a consultant from Tillman county said he was spraying cotton that was planted following wheat. The grasshoppers were eating up the small cotyledon plants in no-till Wheat/Cotton fields.

Grasshopper population increase is favored by a fairly mild, moderately dry winter followed in early spring by cool wet weather that prevents premature hatching. If the premature hatching does not take place, it is more likely that an adequate food supply is insured after hatching occurs. Under these conditions we would expect to have heavy populations of grasshoppers.

Control in small acreage is difficult due to re-infestation from surrounding areas. In cases where protection of gardens are attempted it is best to apply a product such as carbaryl (Sevin) to labeled garden plants as well as a 20 to 30 foot strip surrounding the garden. In cropland frequent treatment of the edge of fields and an outside strip will provide some protection. There are also directions on some Sevin insecticide labels for making a wheat bran bait for distribution in a wide band along field edges the hoppers must cross to get to a crop.

Products that are approved for use in **cotton** are Lorsban, Baythroid and Malathion. Products labeled for grasshopper control on Range Land and Pastures include: Sevin, Dimilin, Malathion and Methyl Parathion, Results of product testing on Bermuda by Dr. Roy Parker, Texas A&M University, Corpus Christi are shown in the table below:

Table 1. Grasshopper control in coastal Bermuda grass, H.b. Schumann Farm. Austin Co., 2010.^{1/}

Treatment	Rate oz/acre	\$Cost/ acre	Grasshopper/ 5 sweeps					Post trt. avg.
			0 DAT ^{2/}	3 DAT	7 DAT	17 DAT	24 DAT	
Dimilin	2.0	3.52	47.0 ^a	10.5 ^a	3.3 ^a	1.5 ^{bc}	0.8 ^c	4.0 ^b
Dimilin + Baythroid	2.0 + 1.4	7.02	41.3 ^a	1.5 ^b	0.3 ^b	0.5 ^c	0.3 ^c	0.6 ^d
Baythroid	2.8	7.00	19.0 ^b	0.5 ^b	0.0 ^b	3.0 ^b	1.5 ^c	1.3 ^{cd}
Sevin XLR	32.0	9.55	29.3 ^b	2.0 ^b	2.0 ^{ab}	1.0 ^c	3.5 ^b	2.1 ^c
Nontreated			26.3 ^b	14.0 ^a	4.3 ^a	8.0 ^a	5.0 ^a	7.8 ^a
Lsd(P=0.05)			10.76	4.73	2.66	1.97	1.48	1.02
P>F			.0006	.0001	.0176	.0001	.0001	.0001

Means in a column followed by the same letter are not significant different by ANOVA.































1/ Test conducted by Phillip Schackelford, Austin County Extension Agent

2/ DAT – Days After Treatment

MOTH TRAP CATCHES:

Bollworm		
Week of	Altus	Tipton
June 7	3	7
June 14	27	35
June 21	16	25
Tobacco Budworm		
	Altus	Tipton
June 7	0	0
June 14	2	9
June 21	0	0

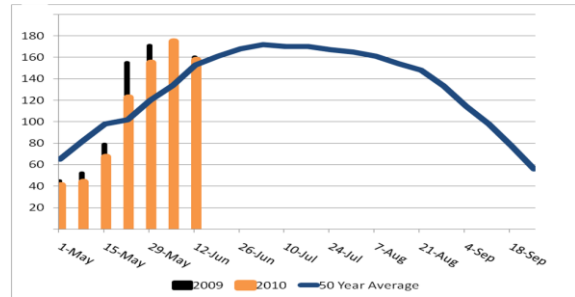
Beet Armyworm		
	Altus	Tipton
June 7	0	0
June 14	0	0
June 21	0	0
Sunflower Moth		
	Altus	Tipton
June 7	0	0
June 14	0	0
June 21	0	0

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 	2 	3 	4 	5 
6 	7 	8 	9 	10 	11 	12 
13 	14 	15 	16 	17 	18 	19 
20 	21 	22 	23 	24 	25 	26 
27 	28 	29 	30 			

GROWING DEGREE DAY:

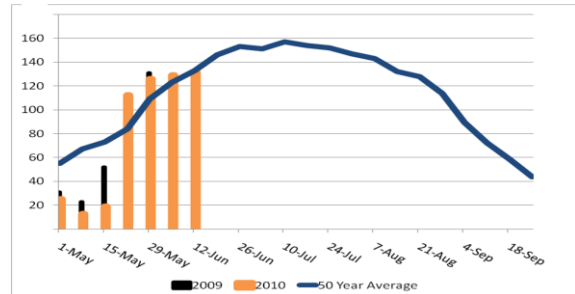
Altus

Growing Degree Days (GDD)			
Week of	50 year	2009	2010
May 1	65	45	41
May 8	82	52	44
May 15	98	79	67
May 22	102	155	123
May 29	120	171	155
June 5	134	132	175
June 12	154	160	158
Total	755	794	763



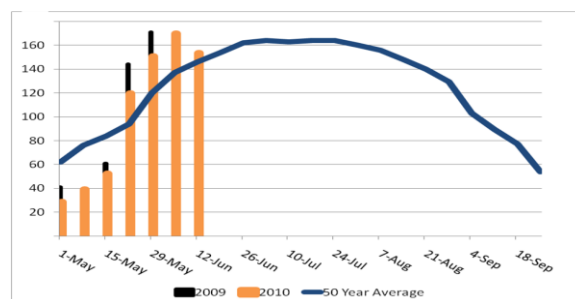
Blackwell

Growing Degree Days (GDD)			
Week of	50 year	2009	2010
May 1	55	31	25
May 8	67	23	13
May 15	73	52	19
May 22	84	101	112
May 29	109	131	126
June 5	123	116	129
June 12	133	131	132
Total	644	585	556



Hobart

Growing Degree Days (GDD)			
Week of	50 year	2009	2010
May 1	62	41	29
May 8	76	36	39
May 15	84	61	53
May 22	94	144	120
May 29	120	171	151
June 5	137	121	170
June 12	146	153	153
Total	719	727	715



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