

**2006**  
**Southwest Oklahoma**  
**Entomology Report**



# Acknowledgements

At this time I want to thank the following persons without whose help this year's entomology projects could not have been accomplished.

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Shane Osborne, Associate Extension Specialist  
Karen Coggeshall, Extension Secretary

I also want to thank the OSU Southwest Research & Extension Staff for their continued support.

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Alton Young, Field Assistant  
Greg Chavez, Field Assistant  
Kyle Sebree, Field Assistant

Also Scott Price, Grant County CED, for establishing and monitoring the Bollworm, Tobacco Budworm and Beet Armyworm moth traps in Manchester, Oklahoma.

Jerry Goodson  
Extension Assistant

# Entomology Activities

Insect monitoring is a key component in a successful IPM program. Trapping activities in 2006 covered cotton growing regions of Southwest and Northern Oklahoma. Trapping activities centered on the beet armyworm and the bollworm complex. Population trends, insect updates, and control tips are published in the Cotton Outlook and distributed to the state's cotton producers and consultants to help formulate management strategies to enhance profitability.

Like 2005, Bollgard™ technology was the focus of this year's research. Monetary support received throughout the year permitted this applied research to continue. Besides State IPM funds, I want to thank all the chemical companies for their contract research support. Special thanks go to the cotton producers for their support as cooperators and support through the Cotton Incorporated State Support Funds

## Oklahoma Cotton Insect Report 2006

A total of 301,665 acres (Oklahoma Boll Weevil Eradication Organization figures) were planted and harvested in 2006. The state's production average is projected at 415 lbs. of lint per acre. Due to dry weather this is one of the lightest insect pressure years in my twenty years working in cotton entomology.

### Ongoing Research Projects

Several Bt cotton trials were conducted in 2006 to further evaluate the value of this technology under Oklahoma conditions. Due to extreme drought conditions and lack of sufficient irrigation no test were yielded for harvest. Basically where moisture was an issue the 2006 crop was over around the first of August.

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# Bollworm / Tobacco Budworm and Beet Armyworm Monitoring

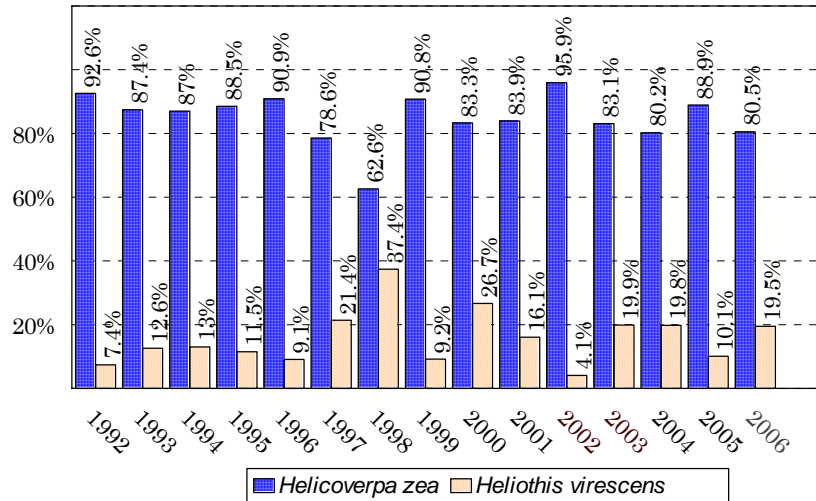
Bollworms/tobacco budworms are targets of many of the insecticide applications applied annually to cotton in Oklahoma. Monitoring moth activities helps determine species ratio and peak ovipositional activity for these insects. Traps were located near these farming communities – Altus, Hollis, Manchester and Tipton. In addition to Heliothine activity, beet armyworm movements were also monitored at each location. Traps were maintained between June 1 and October 1, 2006.

## Moth Pheromone Trap Catch Totals for Selected Regions of Oklahoma, Summer 2006.

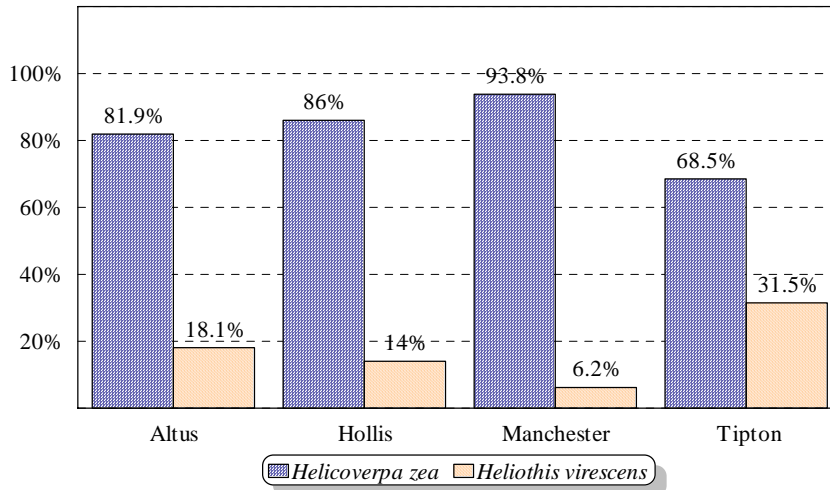
<b>Bollworm</b>			
<u>Altus</u> 326	<u>Hollis</u> 333	<u>Manchester</u> 183	<u>Tipton</u> 298
<b>Tobacco Budworm</b>			
<u>Altus</u> 72	<u>Hollis</u> 54	<u>Manchester</u> 12	<u>Tipton</u> 137
<b>Beet Armyworm</b>			
<u>Altus</u> 49	<u>Hollis</u> 27	<u>Manchester</u> 16	<u>Tipton</u> 94

Although both species do coexist and are considered the same, this species ratio is important since tobacco budworms exhibit a higher level of resistance to insecticides than bollworms. It is extremely important to detect fluctuations in species ratio of each ovipositional period and adjust insecticide recommendations accordingly. A total of 1,415 moths were captured between the week of June 1 and October 1. Bollworms comprised 80.5% of the total catch in 2006 (Figure 1).

**Figure 1. Species composition of moths trapped across Oklahoma, Summer 2006.**



**Figure 2. Species composition of trapped moths by production region, 2006.**

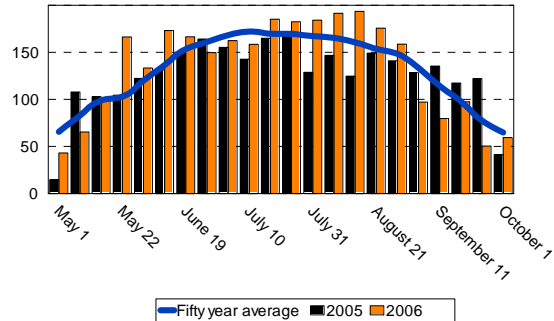


# Growing Degree Days Accumulation For Select Locations Across Oklahoma, Summer 2006.

## ALTUS

Growing Degree Days (GDD)

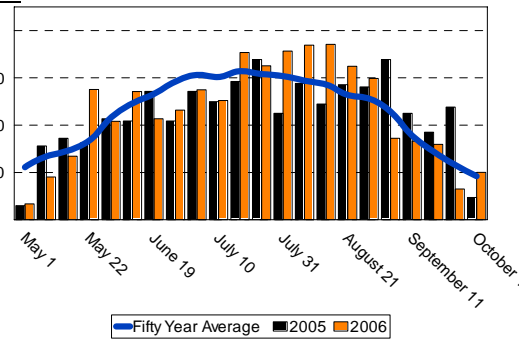
	50 year	2005	2006
May	397.0	358.4	507.8
June	570.5	621.3	634.8
July	846.7	662.1	901.6
August	628.2	626.8	818.2
September	423.6	499.7	310.9
<b>Total</b>	<b>2,866.0</b>	<b>2,768.3</b>	<b>3,173.3</b>



## BLACKWELL

Growing Degree Days (GDD)

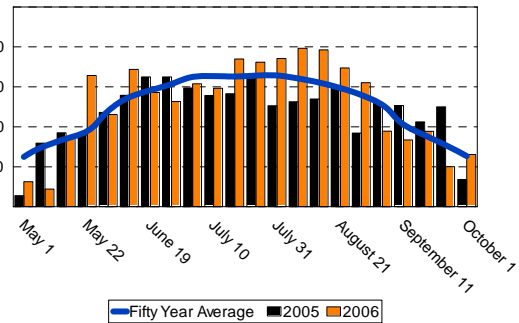
	50 year	2004	2005
May	312.0	403.7	371.0
June	510.0	406.0	495.6
July	767.0	478.5	828.4
August	550.0	529.9	583.4
September	333.0	314.7	268.4
<b>Total</b>	<b>2,472.0</b>	<b>2,132.8</b>	<b>2,546.8</b>



## HOBART

Growing Degree Days (GDD)

	50 year	2004	2005
May	351.9	480.2	419.5
June	559.0	478.6	599.9
July	812.3	567.6	898.0
August	596.4	607.6	621.8
September	437.5	361.1	310.7
<b>Total</b>	<b>2,757.1</b>	<b>2,495.1</b>	<b>2,849.9</b>



# Bollgard II™ and Widestrike Variety Demonstration 2006

Cooperator: Terry White  
 Planting Date: May 16, 2006  
 Seeding Rate: 13.5 lbs/acre

Location: Harmon County  
 Heat units accumulated: 2,950  
 Six Irrigations: 6/20, 7/3, 7/14, 7/25, 8/4, 8/15

Pesticide Usage:

Roundup WeatherMax (20 oz / acre) over-the-top application 6/8

Orthene .45 lbs ai/acre + Pix 3 oz/acre July 6

Pix 8 oz / acre July 28

Harvest Aid applied:

Ethephon (16 oz / acre) + Ginstar (5 oz / acre) September 25

Ethephon (32 oz / acre) October 2

Table 1. Stand Densities, Retention Rates, and Lint Production White's Farm - Summer 2006

<u>Variety</u>	<u>Stand density</u>		<u>% Retention</u>		<u>Lint Yield</u>
	<u>plants/acre</u>		<u>8/1</u>	<u>8/24</u>	
	<u>May 31</u>	<u>June 13</u>			
ST 4554 B2BF	40,000	39,000	87.6	83.3	1,574
Phytogen 485 WRF	32,000	36,000	89.5	83.5	1,556
ST 4700 B2RF	42,000	41,000	90.2	82.2	1,379
ST 4664 RF	42,000	41,000	88.7	81.2	1,370
NG 3273 B2RF	38,000	39,000	89.9	77.6	1,189
ST 5007 B2RF	38,000	36,000	88.2	81.2	1,186
ST 6611B2RF	42,000	41,000	89.1	82.3	1,168
ST 4357 B2RF	43,000	40,000	91.2	84.4	1,084
FM 9063 B2RF	37,000	39,000	85.5	75.5	928

Trial Comments: Bt varieties average 1,258 Roundup Ready 1,370.



## Comparison of Sister Lines of Transgenic Cotton

Insect Code	Stand Count	Stand Count	Bollworm eggs	Bollworm Larvae	Bollworm Damage Squares
Rating Unit	/acre	/acre	/25 plants	/25 plants	/10 plants
Rating Date	May 31	June 7	July 20	July 20	July 20
Treatment					
ST 4554 B2/RRF	38,000	38,000	0	0	0 b
ST 6611 B2/RRF	38,500	38,750	0	0	0 b
DP 143 B2/RRF	39,750	39,000	1	0	0 b
ST 4664 RRF	40,000	39,750	0	0	2 a
ST 6622 RRF	40,500	39,750	0	0	2 a
DP 147 RRF	36,750	36,750	1	0	2 a
LSD (P=.05)	3,845.0	3,980.4	1.0	0.0	0.8
Standard Deviation	2,551.7	2,641.5	0.6	0.0	0.5
CV	6.56	6.83	219.09	0.0	54.77

Yield was not taken due to low yield caused by drought.

# Comparison of Bollgard™ II Flex, Bollgard™ Roundup Ready and Widestrike™ Cotton Varieties under Irrigation

Insect Code	Stand Count	Stand Count	Bollworm eggs	Bollworm Larvae	Bollworm Damage Squares
Rating Unit	/acre	/acre	/10 plants	/10 plants	/10 plants
Rating Date	May 31	June 7	July 20	July 20	July 20
Treatment					
FM 960 B2R	38,750	37,750	1	0	2
FM 9603 B2RF	37,750	38,500	1	0	1
Phytogen 470 WR	37,500	37,250	1	0	2
Phytogen 480 WR	39,250	38,250	1	0	0
Phytogen 485 WRF	39,000	37,250	1	0	1
NG 3273 B2RF	38,250	40,000	1	0	1
ST 6611 B2RF	41,000	40,250	2	0	0
ST 5007 B2RF	39,250	39,250	0	0	0
ST 4700 B2RF	39,750	40,000	1	0	1
ST 4357 B2RF	38,250	37,750	1	0	1
ST 4554 B2RF	40,500	39,500	1	0	0
DP 444 BG/RR	38,250	37,250	1	0	1
DP 445 BG/RR	38,500	38,250	1	0	1
DP 455 BG/RR	39,000	38,750	2	0	0
DP 117 BGII/RF	39,250	37,250	1	0	0
DP 143 BGII/RF	37,250	38,250	1	0	1
DG 2520 B2RF	39,750	39,000	2	0	2
DG OA 265 BR	39,750	37,750	1	0	0
LSD (P=.05)	3,124.9	3,578.2	1.4	0.0	1.4
Standard Deviation	2,209.6	2,530.2	1.0	0.0	1.0
CV	5.67	6.58	109.76	0.0	170.34

Yield was not taken due to low yield caused by drought.

## Irrigated Crop Termination

Insect Code Rating Unit Rating Date	Stand Count /acre June 8	NAWF /10 plants July 13	NAWF /10 plants July 20	NAWF /10 plants July 28	NAWF /10 plants August 3
Treatment					
ST 4554 B2/R	40,750	7	6	5	1
ST 4664 RF	38,250	7	6	5	1
DP 117 B2F	39,250	6	6	5	2
DP 444 BG/RR	38,500	7	6	5	2
LSD (P=.05)	3,598.8	0.9	0.6	1.1	0.7
Standard Deviation	2,250.0	0.6	0.4	0.7	0.4
CV	5.74	8.88	6.34	14.06	28.99

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Yield was not taken due to low yield caused by drought.

## Fleahopper Trial on Flex Cotton

Insect Code	Rating Unit	Rating Date	Trt-Eval Interval	Fleahopper /10 sweep June 22 Precount	Spiders /10m sweep June 22 Precount	Fleahopper /10 sweep June 26 4 DAA	% Control /10 sweep June 26 4 DAA	Fleahopper /10 sweep June 29 7 DAA	% Control /10 sweep June 29 7 DAA
Treatment Name	Rate	Rate Unit							
INTRUDER COC	0.026 1.0	lb ai/a pt/a				0.00 b	100.00 a	0.50 b	100.00 a
INTRUDER COC	0.035 1.0	lb ai/a pt/a				0.00 b	100.00 a	2.75 b	77.27 a
INTRUDER COC	0.05 1.0	lb ai/a pt/a				0.25 b	97.92 a	0.25 b	97.73 a
ACETAMIPRID COC	0.026 1.0	lb ai/a lb ai/a				0.00 b	100.00 a	0.50 b	98.21 a
ACETAMIPRID COC	0.035 1.0	lb ai/a pt/a				0.25 b	98.61 a	0.25 b	98.33 a
ACETAMIPRID COC	0.05 1.0	lb ai/a pt/a				0.25 b	97.22 a	0.25 b	98.33 a
CENTRIC COC	0.031 1.0	lb ai/a pt/a				0.50 b	96.88 a	0.25 b	100.00 a
CENTRIC COC )	0.05 1.0	lb ai/a pt/a				0.00 b	100.00 a	1.00 b	92.61 a
TRIMAX PRO COC	0.031 1.0	lb ai/a pt/a				0.50 b	97.22 a	0.25 b	98.33 a
TRIMAX PRO COC	0.047 1.0	lb ai/a pt/a				0.50 b	97.22 a	0.50 b	100.00 a
CARBINE COC	0.044 1.0	lb ai/a pt/a				0.00 b	100.00 a	0.50 b	96.55 a
CARBINE COC	0.088 1.0	lb ai/a pt/a				0.00 b	100.00 a	0.25 b	100.00 a
UNTREATED CHECK			20.00	1		13.75 a	0.00 b	10.00 a	25.00 b
LSD (P=.05)			.	.		1.725	5.067	3.509	26.406
Standard Deviation			.	.		1.207	3.546	2.455	18.478
CV			.	.		98.08	3.89	185.04	20.32
Grand Mean			20.0	0.5		1.23	91.16	1.33	90.95
Bartlett's X2			.	.		24.71	2.073	72.444	60.859
P(Bartlett's X2)			.	.		0.001*	0.839	0.001*	0.001*
Replicate F						1.724	0.467	0.565	1.706
Replicate Prob(F)						0.1793	0.7070	0.6419	0.1831
Treatment F						38.956	239.246	4.813	5.038
Treatment Prob(F)						0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls).

## Fleahopper Trial on Flex Cotton cont.

Insect Code	Spiders	Fleahopper	% Control	Spiders	Lacewing	Ladybugs	% Retention		
Rating Unit	/10 sweep	/10 sweep	/10 sweep	/10 sweep	/10 sweep	/10 sweep	/10 plant		
Rating Date	June 29	July 5	July 5	July 5	July 5	July 5	July 5		
Crop Stage	Prebloom	Prebloom	Prebloom	Prebloom	Prebloom	Prebloom	Prebloom		
Trt-Eval Interval	7 DAA	13 DAA	13 DAA	13 DAA	13 DAA	13 DAA	13 DAA		
Treatment Name	Rate	Unit							
INTRUDER	0.026	lb ai/a	0 a	1.25 b	79.73 a	0 a	1 a	1 a	85 a
COC	1.0	pt/a							
INTRUDER	0.035	lb ai/a	0 a	1.00 b	86.61 a	1 a	0 a	0 a	90 a
COC	1.0	pt/a							
INTRUDER	0.05	lb ai/a	0 a	1.25 b	78.30 a	0 a	0 a	0 a	90 a
COC	1.0	pt/a							
ACETAMIPRID	0.026	lb ai/a	0 a	1.00 b	86.16 a	0 a	0 a	0 a	88 a
COC	1.0	lb ai/a							
ACETAMIPRID	0.035	lb ai/a	0 a	1.25 b	83.04 a	0 a	0 a	0 a	90 a
COC	1.0	pt/a							
ACETAMIPRID	0.05	lb ai/a	0 a	1.00 b	84.73 a	1 a	1 a	1 a	85 a
COC	1.0	pt/a							
CENTRIC	0.031	lb ai/a	0 a	1.75 b	72.50 a	0 a	0 a	0 a	85 a
COC	1.0	pt/a							
CENTRIC	0.05	lb ai/a	0 a	1.00 b	83.75 a	0 a	0 a	0 a	93 a
COC )	1.0	pt/a							
TRIMAX PRO	0.031	lb ai/a	0 a	1.50 b	80.36 a	0 a	0 a	0 a	85 a
COC	1.0	pt/a							
TRIMAX PRO	0.047	lb ai/a	0 a	1.25 b	77.86 a	0 a	0 a	0 a	93 a
COC	1.0	pt/a							
CARBINE	0.044	lb ai/a	0 a	1.00 b	83.75 a	0 a	1 a	0 a	90 a
COC	1.0	pt/a							
CARBINE	0.088	lb ai/a	0 a	1.00 b	82.86 a	1 a	0 a	0 a	93 a
COC	1.0	pt/a							
UNTREATED CHECK			1 a	7.00 a	0.00 b	1 a	0 a	0 a	65 a
LSD (P=.05)			0.5	1.766	26.054	0.8	0.8	0.8	15.3
Standard Deviation			0.3	1.236	18.232	0.6	0.6	0.5	10.7
CV			286.1	75.62	24.19	205.53	208.17	252.9	12.31
Grand Mean			0.12	1.63	75.36	0.29	0.27	0.21	86.92
Bartlett's X2			0.101	2.494	3.332	5.695	6.001	4.493	3.776
P(Bartlett's X2)			0.999	0.998	0.986	0.77	0.74	0.722	0.987
Replicate F			0.235	0.818	3.133	1.514	2.857	0.605	1.388
Replicate Prob(F)			0.8712	0.4924	0.0374	0.2275	0.0505	0.6164	0.2621
Treatment F			1.000	6.944	6.351	0.574	0.592	0.706	1.825
Treatment Prob(F)			0.4685	0.0001	0.0001	0.8478	0.8341	0.7352	0.0811

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls).

Yield was not taken due to low yield caused by drought.

Finish spray 10 gal/acre.

## Fleahopper Trial on Liberty Link Cotton

Insect Code	Rating Unit	Rating Date	Trt-Eval Interval	Fleahopper /10 sweep June 22 Precount	Spiders /10m sweep June 22 Precount	Fleahopper /10 sweep June 26 4 DAA	% Control /10 sweep June 26 4 DAA	Fleahopper /10 sweep June 29 7 DAA	% Control /10 sweep June 29 7 DAA
Treatment Name	Rate	Rate Unit							
INTRUDER COC	0.026 1.0	lb ai/a pt/a				0.00 b	100.00 a	0.25 b	97.73 a
INTRUDER COC	0.035 1.0	lb ai/a pt/a				0.00 b	100.00 a	0.50 b	95.30 a
INTRUDER COC	0.05 1.0	lb ai/a pt/a				0.25 b	98.61 a	0.50 b	95.45 a
ACETAMIPRID COC	0.026 1.0	lb ai/a lb ai/a				0.25 b	98.61 a	0.25 b	98.08 a
ACETAMIPRID COC	0.035 1.0	lb ai/a pt/a				0.00 b	100.00 a	0.25 b	97.73 a
ACETAMIPRID COC	0.05 1.0	lb ai/a pt/a				0.25 b	97.92 a	0.25 b	97.73 a
CENTRIC COC	0.031 1.0	lb ai/a pt/a				0.50 b	97.22 a	0.25 b	97.73 a
CENTRIC COC )	0.05 1.0	lb ai/a pt/a				0.00 b	100.00 a	0.75 b	92.68 a
TRIMAX PRO COC	0.031 1.0	lb ai/a pt/a				0.00 b	100.00 a	0.00 b	100.00 a
TRIMAX PRO COC	0.047 1.0	lb ai/a pt/a				0.00 b	100.00 a	1.00 b	91.10 a
CARBINE COC	0.044 1.0	lb ai/a pt/a				0.50 b	95.83 a	0.25 b	97.22 a
CARBINE COC	0.088 1.0	lb ai/a pt/a				0.25 b	97.22 a	0.00 b	100.00 a
UNTREATED CHECK			12.50	0		10.50 a	0.00 b	11.00 a	0.00 b
LSD (P=.05)			.	.		1.534	5.118	1.080	7.833
Standard Deviation			.	.		1.073	3.581	0.756	5.481
CV			.	.		111.61	3.93	64.45	6.14
Grand Mean			12.5	00		0.96	91.19	1.17	89.29
Bartlett's X2			.	.		23.425	5.164	11.214	4.799
P(Bartlett's X2)			.	.		0.001*	0.396	0.341	0.851
Replicate F						0.735	0.784	0.393	0.123
Replicate Prob(F)						0.5382	0.5107	0.7591	0.9458
Treatment F						28.647	234.711	61.553	96.692
Treatment Prob(F)						0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls).

## Fleahopper Trial on Liberty Link Cotton cont.

Insect Code	Spiders	Fleahopper	% Control	Spiders	Lacewing	Ladybugs	% Retention		
Rating Unit	/10 sweep	/10 sweep	/10 sweep	/10 sweep	/10 sweep	/10 sweep	/10 plant		
Rating Date	June 29	July 5	July 5	July 5	July 5	July 5	July 5		
Crop Stage	Prebloom	Prebloom	Prebloom	Prebloom	Prebloom	Prebloom	Prebloom		
Trt-Eval Interval	7 DAA	13 DAA	13 DAA	13 DAA	13 DAA	13 DAA	13 DAA		
Treatment Name	Rate	Unit							
INTRUDER	0.026	lb ai/a	0 a	1.25 b	69.17 a	1 a	0 a	0 a	100 a
COC	1.0	pt/a							
INTRUDER	0.035	lb ai/a	0 a	1.25 b	66.67 a	1 a	0 a	0 a	93 ab
COC	1.0	pt/a							
INTRUDER	0.05	lb ai/a	0 a	0.75 b	83.75 a	1 a	0 a	0 a	93 ab
COC	1.0	pt/a							
ACETAMIPRID	0.026	lb ai/a	0 a	1.25 b	66.67 a	1 a	0 a	0 a	98 a
COC	1.0	lb ai/a							
ACETAMIPRID	0.035	lb ai/a	0 a	0.75 b	79.17 a	1 a	0 a	0 a	95 a
COC	1.0	pt/a							
ACETAMIPRID	0.05	lb ai/a	0 a	0.25 b	95.00 a	1 a	0 a	0 a	93 ab
COC	1.0	pt/a							
CENTRIC	0.031	lb ai/a	1 a	0.25 b	95.00 a	1 a	0 a	0 a	88 ab
COC	1.0	pt/a							
CENTRIC	0.05	lb ai/a	0 a	0.50 b	83.33 a	1 a	0 a	0 a	95 a
COC )	1.0	pt/a							
TRIMAX PRO	0.031	lb ai/a	0 a	0.75 b	79.17 a	1 a	0 a	0 a	90 ab
COC	1.0	pt/a							
TRIMAX PRO	0.047	lb ai/a	0 a	0.00 b	100.00 a	1 a	0 a	0 a	100 a
COC	1.0	pt/a							
CARBINE	0.044	lb ai/a	0 a	0.25 b	93.75 a	1 a	0 a	0 a	95 a
COC	1.0	pt/a							
CARBINE	0.088	lb ai/a	0 a	0.00 b	100.00 a	1 a	0 a	0 a	100 a
COC	1.0	pt/a							
UNTREATED CHECK			1 a	4.50 a	0.00 b	1 a	0 a	0 a	78 b
LSD (P=.05)			0.6	1.265	31.354	1.5	0.4	0.4	10.2
Standard Deviation			0.4	0.886	21.941	1.0	0.2	0.3	7.1
CV			326.67	97.98	28.19	130.63	427.74	326.05	7.61
Grand Mean			0.13	0.9	77.82	0.79	0.06	0.1	93.46
Bartlett's X2			3.371	6.848	11.955	0.349	0.0	0.0	5.592
P(Bartlett's X2)			0.498	0.74	0.216	1.00	0.001*	0.001*	0.78
Replicate F			2.221	1.071	4.277	0.018	0.316	0.717	0.863
Replicate Prob(F)			0.1025	0.3736	0.0111	0.9966	0.8138	0.5481	0.4693
Treatment F			0.779	6.989	5.731	0.033	0.789	0.652	3.013
Treatment Prob(F)			0.6676	0.0001	0.0001	1.0000	0.6578	0.7835	0.0052

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls).  
Yield was not taken due to low yield caused by drought.  
Finish spray 10 gal/acre.

## Dryland Crop Termination

Insect Code	Stand Count	Stand Count	NAWF	NAWF
Rating Unit	/acre	/acre	/10 plants	/10 plants
Rating Date	May	June	July	July
Treatment	24	8	6	13
ST 4646 BGII/RR	23333	23333	2	2
PM 2326 BG/RR	19433	19433	2	1
ST 4793 RR	18333	18333	3	1
PM 2266 RR	18667	18667	2	1
LSD (P=.05)	15872.9	15872.9	1.1	1.0
Standard Deviation	7944.5	7944.5	0.6	0.5
CV	39.84	39.84	23.69	33.33
Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls).				
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.				

Yield was not taken due to low yield caused by drought.



# Comparison of Bollgard™, Bollgard™ II, Bollgard™ Roundup and Widestrike™ Cotton Varieties under Dryland Conditions

Insect Code	Stand Count	Stand Count	Bollworm eggs	Bollworm Larvae	Bollworm Damage Squares
Rating Unit	/acre	/acre	/10 plants	/10 plants	/10 plants
Rating Date	June 1	June 8	July 20	July 20	July 20
Trt Treatment No. Name	2	3	4	5	6
FM 960 B2R	35667 a	35667 a	0 a	0 a	0 a
FM 9063 B2RF	35000 a	35000 a	0 a	0 a	0 a
Phytogen 470 WR	33667 a	33667 a	0 a	0 a	0 a
Phytogen 480 WR	34333 a	34333 a	0 a	0 a	0 a
Phytogen 485 WRF	32333 a	32333 a	0 a	0 a	0 a
NG 3273 B2RF	34000 a	34000 a	0 a	0 a	0 a
ST 6611 B2RF	35333 a	35333 a	0 a	0 a	0 a
ST 5007 B2RF	32000 a	32000 a	0 a	0 a	0 a
ST 4700 B2RF	33667 a	33667 a	0 a	0 a	0 a
ST 4357 B2RF	30667 a	30667 a	0 a	0 a	0 a
ST 4554 B2RF	28333 a	28333 a	0 a	0 a	0 a
DP 444 BG/RR	34333 a	34333 a	0 a	0 a	0 a
DP 445 BG/RR	34667 a	34667 a	0 a	0 a	0 a
DP 455 BG/RR	18000 a	18000 a	0 a	0 a	0 a
DP 117 BGII/RF	32000 a	32000 a	0 a	0 a	0 a
DP 143 BGII/RF	28333 a	28333 a	0 a	0 a	0 a
DG 2520 B2RF	29000 a	29000 a	0 a	0 a	0 a
DG OA 265 BR	28333 a	28333 a	0 a	0 a	0 a
LSD (P=.05)	9900.4	9900.4	0.0	0.0	0.0
Standard Deviation	5938.0	5938.0	0.0	0.0	0.0
CV	18.76	18.76	0.0	0.0	0.0
Grand Mean	31648.15	31648.15	0.0	0.0	0.0
Bartlett's X2	41.608	41.608	0.0	0.0	0.0
P(Bartlett's X2)	0.001*	0.001*	.	.	.
Replicate F	1.151	1.151	0.000	0.000	0.000
Replicate Prob(F)	0.3284	0.3284	1.0000	1.0000	1.0000
Treatment F	1.532	1.532	0.000	0.000	0.000
Treatment Prob(F)	0.1417	0.1417	1.0000	1.0000	1.0000

Yield was not taken due to low yield caused by drought.

## Production Practices for Entomology Trials Summer, 2006

Planted Date: May 13  
Planting method: Cone type planter  
Seeding rate: 18.6 lbs/acre  
Insecticide applied: June 23 Vydate 0.25 lbs ai/acre  
July 8 Vydate 0.25 ai/acre  
Irrigations: June 26, July 5, and July 17

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