

CRW/Standard Efficacy  
Final Report 5 December 2011

TEST 1 of 2

Test Name and Location: Corn Rootworm Small Plot Assay,  
Throckmorton-Purdue Agricultural Center,  
Lafayette, IN.

Cooperator: Christian Krupke/Larry Bledsoe

Planting date (s): 16 May 2011

Base Hybrid Select Seed 7210 RR

Row width: 30"

Planter Population: 27,700 kernels per acre

Soil Type: Chalmers silt loam

Soil Properties: Organic matter; 2.5%  
pH; 6.4  
CEC: 13.0  
Texture: 24.0% sand, 64.4% silt, 11.6% clay

Tillage: Field cultivator, 26 May 2009

Conditions at planting air temp; F  
2" soil temp; F  
wind dir and spd; SW mph

previous crop: corn (trap crop)

previous year insecticide: none

Herbicides:

3 qts Degree Extra, 1.5 pts Atrazine; 11 May 2011.  
0.75 oz Impact, 3 oz Callisto, 3 pts Choice Weather Master/100 gal  
(hard water adjuvant), 1 Gal MSO/100 gal, 6 July 2011

Fertilizers: 164 lbs N/acre (55 gal UAN 28%) applied pre-planting  
on 6 May 2011. 113 lbs 12-12-12 starter, 16 May 2011

Trial design and machinery setup:

Weather data: see Appendix I.

RCBD, 4 reps, four row plots x 75 ft, JD Max-emerge® 7000 planter.  
AMVAC SmartBox® system was used for SmartChoice® and Counter®  
applications. Noble® meters were used to apply Aztec. All  
applications were made at 3 mph.

## Notes:

General weather conditions for the growing season were cool and damp early, and hot and dry late. Frequent early season rain resulted in saturated soil during rootworm egg hatch. Slight differences in soil typography resulted in varying degrees of moisture saturation that irregularly affected first instar survivorship across the trial. Seed germination and seedling growth was slow. Western corn rootworm beetle egg hatch occurred about 6 June. Adult emergence commenced 1 July approximately one week later than normal. Larval and adult abundance was generally below average for the entire season.

Results: Plant counts (Tables 1,2) had a tendency to be low in treatment 7 (Counter 20G applied with Smartbox), treatment 10 (control), and treatment 13 (2K592 HXT+Lorsban 15G). Treatments did not affect ( $P=0.05$ ) plant height (Tables 3,4). Root node injury was moderate to low (Tables 5,6). There were no differences ( $P=0.05$ ) between treatments for root injury or consistency of performance (Table 7-incidence of roots with injury  $\leq 0.25$ ). No goosenecked (root lodged) were detected and no analysis are presented (Table 8). Minor stalk lodging was observed in treatment 12 (2K592 HXT), however visual inspection suggested that injury occurred early in the season and was likely caused by whitetail deer (Table 9).

Table 1. Stand counts. Throckmorton-Purdue Agricultural Center, Lafayette, IN.<sup>1</sup>

Treatment, Place <sup>2</sup>	Oz ai /1000 ft	Plants per 40 ft	
		Mean <sup>3</sup>	SEM
01. Aztec 2.1G, TB	0.14 TB	60.00 a	1.780
02. Aztec 2.1G, IF	0.14 IF	60.25 a	0.750
03. Force 3G, TB	0.12 TB	62.25 a	0.479
04. Force 3G, IF	0.12 IF	60.25 a	1.702
05. Lorsban 15G, TB	1.2 TB	60.00 a	1.155
06. Lorsban 15G, IF	1.2 IF	61.75 a	0.854
07. Counter SB 20G, IF	1.2 IF	54.75 a	9.059
08. Smartchoice SB 5G, IF	0.25 IF	62.75 a	2.323
09. 7210/P1250, ST	1.25mg ST	58.50 a	0.866
10. Check 7210/P250,	0.250mg	51.75 a	9.286
11. 2K594 SS, PIP		61.00 a	0.707
12. 2K592 HXT, PIP		55.75 a	1.109
13. 2K592 HXT+Lorsban15G, PIP	1.2 TB	52.00 a	1.915

<sup>1</sup>Planted, 16 May 2011; Sampled, 9 June 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®.

<sup>3</sup>ANOVA  $PR>F=(0.5416)$ .

Table 2. Stand Counts by Replication. Throckmorton-Purdue Agricultural Center, Lafayette, IN.<sup>1</sup>

Treatment, Place <sup>2</sup>	Oz ai /1000 ft	Plants per 40 ft			
		Rep1	Rep2	Rep3	Rep4
01. Aztec 2.1G, TB	0.14 TB	62	63	60	55
02. Aztec 2.1G, IF	0.14 IF	59	62	59	61
03. Force 3G, TB	0.12 TB	62	63	61	63
04. Force 3G, IF	0.12 IF	60	57	65	59
05. Lorsban 15G, TB	1.2 TB	62	58	58	62
06. Lorsban 15G, IF	1.2 IF	60	61	64	62
07. Counter SB 20G, IF	1.2 IF	57	62	71	29
08. Smartchoice SB 5G, IF	0.25 IF	61	58	63	69
09. 7210/P1250, ST	1.25mg ST	60	56	59	59
10. Check 7210/P250,	0.250mg	61	63	24	59
11. 2K594 SS, PIP		61	63	60	60
12. 2K592 HXT, PIP		55	55	54	59
13. 2K592 HXT+Lorsban15G, PIP	1.2 TB	57	49	49	53

<sup>1</sup>Planted, 16 May 2011; Sampled, 9 June 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®.

Table 3. Plant Height. Throckmorton-Purdue Agricultural Center, Lafayette, IN.<sup>1</sup>

Treatment, Place <sup>2</sup>	Oz ai /1000 ft	Plant Height (cm)	
		Mean <sup>3</sup>	SEM
01. Aztec 2.1G, TB	0.14 TB	16.02 a	0.748
02. Aztec 2.1G, IF	0.14 IF	16.38 a	0.993
03. Force 3G, TB	0.12 TB	15.50 a	0.970
04. Force 3G, IF	0.12 IF	16.42 a	0.836
05. Lorsban 15G, TB	1.2 TB	15.75 a	0.945
06. Lorsban 15G, IF	1.2 IF	16.00 a	0.578
07. Counter SB 20G, IF	1.2 IF	18.96 a	2.958
08. Smartchoice SB 5G, IF	0.25 IF	15.99 a	0.830
09. 7210/P1250, ST	1.25mg ST	16.12 a	1.078
10. Check 7210/P250,	0.250mg	15.89 a	1.080
11. 2K594 SS, PIP		15.11 a	0.946
12. 2K592 HXT, PIP		20.34 a	2.827
13. 2K592 HXT+Lorsban15G, PIP	1.2 TB	17.40 a	1.380

<sup>1</sup>Planted, 16 May 2011; Sampled, 9 June 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®.

<sup>3</sup>ANOVA PR>F=(0.2600).

Table 4. Plant Height. Throckmorton-Purdue Agricultural Center, Lafayette, IN.<sup>1</sup>

Treatment, Place <sup>2</sup>	Oz ai /1000 ft	Plant Height (cm)			
		Rep1	Rep2	Rep3	Rep4
01. Aztec 2.1G, TB	0.14 TB	13.90	17.40	16.50	16.30
02. Aztec 2.1G, IF	0.14 IF	15.45	18.85	16.95	14.25
03. Force 3G, TB	0.12 TB	15.10	17.75	16.05	13.10
04. Force 3G, IF	0.12 IF	15.10	18.85	15.60	16.15
05. Lorsban 15G, TB	1.2 TB	13.65	18.15	16.10	15.10
06. Lorsban 15G, IF	1.2 IF	16.25	17.30	14.50	15.95
07. Counter SB 20G, IF	1.2 IF	14.15	18.10	16.10	27.50
08. Smartchoice SB 5G, IF	0.25 IF	14.60	18.40	15.45	15.50
09. 7210/P1250, ST	1.25mg ST	14.00	17.75	14.55	18.20
10. Check 7210/P250,	0.250mg	15.15	18.90	15.70	13.80
11. 2K594 SS, PIP		12.75	16.35	16.90	14.45
12. 2K592 HXT, PIP		17.20	19.30	28.60	16.25
13. 2K592 HXT+Lorsban15G, PIP	1.2 TB	15.75	21.25	17.50	15.10

<sup>1</sup>Planted, 16 May 2011; Sampled, 9 June 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®.

Table 5. Node injury ratings. Throckmorton-Purdue Ag Center, Lafayette, IN.<sup>1</sup>

Treatment, Place <sup>2</sup>	Oz ai /1000 ft	Node	
		Injury <sup>3</sup>	SEM
01. Aztec 2.1G, TB	0.14 TB	0.092 a	0.0250
02. Aztec 2.1G, IF	0.14 IF	0.052 a	0.0229
03. Force 3G, TB	0.12 TB	0.120 a	0.0545
04. Force 3G, IF	0.12 IF	0.098 a	0.0144
05. Lorsban 15G, TB	1.2 TB	0.651 a	0.5501
06. Lorsban 15G, IF	1.2 IF	0.132 a	0.0354
07. Counter SB 20G, IF	1.2 IF	0.255 a	0.1522
08. Smartchoice SB 5G, IF	0.25 IF	0.215 a	0.1354
09. 7210/P1250, ST	1.25mg ST	0.545 a	0.4852
10. Check 7210/P250,	0.250mg	0.292 a	0.1740
11. 2K594 SS, PIP		0.065 a	0.0156
12. 2K592 HXT, PIP		0.050 a	0.0091
13. 2K592 HXT+Lorsban15G, PIP	1.2 TB	0.060 a	0.0091

<sup>1</sup>Planted, 16 May 2011; Sampled, 20 July 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®.

<sup>3</sup>ANOVA PR>F=0.4592.

Table 6. Node injury ratings by replication. Throckmorton-Purdue Ag Center, Lafayette, IN. <sup>1</sup>

Treatment, Place <sup>2</sup>	Oz ai /1000 ft	Node Injury			
		R1	R2	R3	R4
01. Aztec 2.1G, TB	0.14	0.10	0.12	0.13	0.02
02. Aztec 2.1G, IF	0.14	0.10	0.00	0.03	0.08
03. Force 3G, TB	0.12	0.05	0.03	0.27	0.13
04. Force 3G, IF	0.12	0.12	0.06	0.12	0.09
05. Lorsban 15G, TB	1.2	2.30	0.05	0.15	0.10
06. Lorsban 15G, IF	1.2	0.12	0.12	0.23	0.06
07. Counter SB 20G, IF	1.2	0.71	0.08	0.14	0.09
08. Smartchoice SB 5G IF	0.25	0.62	0.10	0.05	0.09
09. 7210/P1250, ST	1.25mg	2.00	0.09	0.07	0.02
10. Check 7210/P250,	0.250mg	0.81	0.18	0.11	0.07
11. 2K594 SS, PIP		0.05	0.11	0.06	0.04
12. 2K592 HXT, PIP		0.06	0.03	0.07	0.04
13. 2K592 HXT+Lorsban15G, PIP 1.2 TB		0.05	0.08	0.07	0.04

<sup>1</sup>Planted, 16 May 2011; Sampled, 20 July 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®

Table 7. Root ratings consistency of performance at Throckmorton-Purdue Agricultural Center, Lafayette, IN, 2010<sup>1</sup>.

Treatment/Place <sup>2</sup>	Oz ai /1000 ft	Percentage Rating ≤ 0.25	
		Mean <sup>3</sup>	SEM
01. Aztec 2.1G, TB	0.14 TB	100 a	0.0
02. Aztec 2.1G, IF	0.14 IF	100 a	0.0
03. Force 3G, TB	0.12 TB	95 a	5.0
04. Force 3G, IF	0.12 IF	100 a	0.0
05. Lorsban 15G, TB	1.2 TB	75 a	25.0
06. Lorsban 15G, IF	1.2 IF	95 a	5.0
07. Counter SB 20G, IF	1.2 IF	85 a	15.0
08. Smartchoice SB 5G, IF	0.25 IF	85 a	15.0
09. 7210/P1250, ST	1.25mg ST	75 a	25.0
10. Check 7210/P250,	0.250mg	85 a	9.6
11. 2K594 SS, PIP		100 a	0.0
12. 2K592 HXT, PIP		100 a	0.0
13. 2K592 HXT+Lorsban15G, PIP 1.2 TB		100 a	0.0

<sup>1</sup>Planted, 16 May 2011; Sampled, 20 July 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®.

<sup>3</sup>ANOVA PR>F=0.5739.

Table 8. Goose-necked plants per 17.4 ft. Throckmorton-Purdue Ag Center, Lafayette, IN. <sup>1</sup>

Treatment, Place <sup>2</sup>	Oz ai /1000 ft	Goose-necked Plants				R4
		R1	R2	R3		
01. Aztec 2.1G, TB	0.14	0	0	0	0	0.0
02. Aztec 2.1G, IF	0.14	0	0	0	0	0.0
03. Force 3G, TB	0.12	0	0	0	0	0.0
04. Force 3G, IF	0.12	0	0	0	0	0.0
05. Lorsban 15G, TB	1.2	0	0	0	0	0.0
06. Lorsban 15G, IF	1.2	0	0	0	0	0.0
07. Counter SB 20G, IF	1.2	0	0	0	0	0.0
08. Smartchoice SB 5G IF	0.25	0	0	0	0	0.0
09. 7210/P1250, ST	1.25mg	0	0	0	0	0.0
10. Check 7210/P250,	0.250mg	0	0	0	0	0.0
11. 2K594 SS, PIP		0	0	0	0	0.0
12. 2K592 HXT, PIP		0	0	0	0	0.0
13. 2K592 HXT+Lorsban15G, PIP 1.2 TB		0	0	0	0	0.0

<sup>1</sup>Planted, 16 May 2011; Sampled, 16 October 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®  
No goose-necked plants present. No analysis performed.

Table 9. Lodged plants per 17.4 ft. Throckmorton-Purdue Ag Center, Lafayette, IN. 2011.

Treatment, Place <sup>2</sup>	Oz ai /1000 ft	Lodged Plants				Avg
		R1	R2	R3	R4	
01. Aztec 2.1G, TB	0.14	0	0	0	0	0.0
02. Aztec 2.1G, IF	0.14	0	0	0	0	0.0
03. Force 3G, TB	0.12	0	0	0	0	0.0
04. Force 3G, IF	0.12	0	0	0	0	0.0
05. Lorsban 15G, TB	1.2	0	0	0	0	0.0
06. Lorsban 15G, IF	1.2	0	0	0	0	0.0
07. Counter SB 20G, IF	1.2	0	0	0	0	0.0
08. Smartchoice SB 5G IF	0.25	1	1	0	0	0.50
09. 7210/P1250, ST	1.25mg	0	0	0	0	0.0
10. Check 7210/P250,	0.250mg	1	0	0	0	0.25
11. 2K594 SS, PIP		4*	0	3*	0	1.75
12. 2K592 HXT, PIP		0	0	0	0	0.0
13. 2K592 HXT+Lorsban15G, PIP 1.2 TB		0	0	0	0	0.0

<sup>1</sup>Planted, 16 May 2011; Sampled, 16 October 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®

\*Stalks broken below the ear early season, probably due to green-snap.

No analysis performed.

TEST 2 of 2

Test name and location: Corn Rootworm Small Plot Assay  
Pinney-Purdue Ag Center, Wanatah, IN.

Cooperator: Christian Krupke/Larry Bledsoe

Planting date (s): 24 May 2011

Base Hybrid Select Seed 7210 RR

Row width: 30"

Planter Population: 27,700 kernels per acre

Soil Type: Sebewa sandy silt loam

Soil Properties: Organic matter; 2.0%  
pH; 5.7  
CEC: 18.0  
Texture: 54.0% sand, 40.4% silt, 5.6% clay

Tillage: Field cultivator, na

Conditions at planting air temp; F  
2" soil temp; F  
wind dir and spd; SW mph

previous crop: corn (trap crop)

previous year insecticide: none

Herbicides: 2 qts Confidence Extra (Harness Extra), 1.5 oz. Balance Pro. 20 May 2011.

Fertilizers: 164 lbs N/acre (66.6 gal UAN 28%) applied 20 May 2011.  
113 lbs 12-12-12 starter, 24 May 2011

Trial design and machinery setup:

Weather data: see Appendix II.

RCBD, 4 reps, four row plots x 75 ft, JD Max-emerge® 7000 planter. AMVAC SmartBox® system was used for SmartChoice® and Counter® applications. Noble® meters were used to apply Aztec. All applications were made at 3 mph.

Notes:

General weather conditions for the growing season were cool and damp early, and hot and dry late. Level of rootworm injury was very irregular across trial. Adult emergence was approximately 1 weeks later than normal. Larval and adult abundance was generally below average for the entire season.

Results: Stand counts were highly variable and mean separation ( $P=0.05$ ) did not occur (Table 9). Treatments 7 (Counter SB 20G) and 13 (2K592 HXT+Lorsban15G) each had a replicate with unexplainable low number of plants (Table 10). Heights of plants in treatment 13 (2K592 HXT+Lorsban15G) was unusually small (Table 11). This effect was consistent across replicates (Table 12) and may have been an example of phytotoxicity. Root injury was moderate in the untreated control (Tables 13, 14). All chemical and trait treatments did not exceed the conventional threshold of 0.25 and there were no differences ( $P=0.05$ ) between means. The consistency of performance (injury  $\leq 0.25$ ) was very high for all chemical and trait products (Table 15). All these treatments exceeded ( $P=0.05$ ) the untreated control. Goose-necked (root lodged) and stalk-lodged plants were too few to analyze (Tables 16, 17).

Table 9. Stand counts. Pinney-Purdue Agricultural Center, Wanatah, IN.<sup>1</sup>

Treatment, Place <sup>2</sup>	Oz ai	Plants per 40 ft	
	/1000 ft	Mean <sup>3</sup>	SEM
01. Aztec 2.1G, TB	0.14	59.25 a	0.854
02. Aztec 2.1G, IF	0.14	56.50 a	3.379
03. Force 3G, TB	0.12	61.75 a	1.109
04. Force 3G, IF	0.12	59.00 a	2.799
05. Lorsban 15G, TB	1.2	59.50 a	1.555
06. Lorsban 15G, IF	1.2	59.50 a	1.555
07. Counter SB 20G, IF	1.2	51.00 a	9.390
08. Smartchoice SB 5G, IF	0.25	59.50 a	0.957
09. 7210/P1250, ST	1.25mg	61.00 a	3.317
10. Check 7210/P250	0.250mg	59.50 a	1.323
11. 2K594 SS, PIP		57.75 a	1.031
12. 2K592 HXT, PIP		56.25 a	3.119
13. 2K592 HXT+Lorsban15G, PIP	1.2	53.25 a	10.094
14. OAM+Force 3G PIP	0.12	46.25 a	9.758
15. OAM, PIP		57.25 a	2.287

<sup>1</sup>Planted, 24 May 2011; Sampled, 17 June 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®

<sup>3</sup>ANOVA PR>F=(0.6826).



Table 10. Stand Count by Replication. Pinney-Purdue Agricultural Center, Wanatah, IN.<sup>1</sup>

Treatment, Place <sup>2</sup>	Oz ai 1000 ft	Plants per 40 ft			
		Rep1	Rep2	Rep3	Rep4
01. Aztec 2.1G, TB	0.14	57	59	60	61
02. Aztec 2.1G, IF	0.14	60	49	64	53
03. Force 3G, TB	0.12	59	61	64	63
04. Force 3G, IF	0.12	52	64	57	63
05. Lorsban 15G, TB	1.2	60	62	55	61
06. Lorsban 15G, IF	1.2	62	60	55	61
07. Counter SB 20G, IF	1.2	58	23	60	63
08. Smartchoice SB 5G, IF	0.25	61	59	57	61
09. 7210/P1250, ST	1.25mg	66	52	60	66
10. Check 7210/P250	0.250mg	58	57	60	63
11. 2K594 SS, PIP		56	60	56	59
12. 2K592 HXT, PIP		62	60	48	55
13. 2K592 HXT+Lorsban15G, PIP	1.2	23	62	64	64
14. OAM+Force 3G PIP	0.12	17	57	55	56
15. OAM, PIP		55	52	60	62

<sup>1</sup>Planted, 24 May 2011; Sampled, 17 June 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®

Table 11. Plant Height. Pinney-Purdue Agricultural Center, Wanatah, IN, 2011<sup>1</sup>.

Treatment, Place <sup>2</sup>	Oz ai /1000 ft	Plant Height (cm)	
		Mean <sup>3</sup>	SEM
01. Aztec 2.1G, TB	0.14	33.11 a	1.288
02. Aztec 2.1G, IF	0.14	28.65 b	1.065
03. Force 3G, TB	0.12	32.72 ab	0.965
04. Force 3G, IF	0.12	30.78 ab	1.164
05. Lorsban 15G, TB	1.2	32.21 ab	1.167
06. Lorsban 15G, IF	1.2	32.20 ab	1.036
07. Counter SB 20G, IF	1.2	29.28 ab	2.891
08. Smartchoice SB 5G, IF	0.25	30.84 ab	1.047
09. 7210/P1250, ST	1.25mg	28.85 b	1.153
10. Check 7210/P250	0.250mg	32.55 ab	1.108
11. 2K594 SS, PIP		28.84 b	1.488
12. 2K592 HXT, PIP		32.65 ab	1.576
13. 2K592 HXT+Lorsban15G TB, PIP	1.2	22.22 c	0.966
14. OAM+Force 3G PIP	0.12	28.72 b	2.103
15. OAM, PIP		28.66 b	1.722

<sup>1</sup>Planted, 24 May 2011; Sampled, 17 June 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®

<sup>3</sup>ANOVA PR>F=(0.0004). LSD alpha=0.05

Table 12. Plant Height by replication. Pinney-Purdue Agricultural Center, Wanatah, IN.<sup>1</sup>

Treatment, Place <sup>2</sup>	Oz ai /1000 ft	Plant Height (cm)			
		Rep1	Rep2	Rep3	Rep4
01. Aztec 2.1G, TB	0.14	33.70	29.40	34.00	35.35
02. Aztec 2.1G, IF	0.14	28.80	29.90	30.30	25.60
03. Force 3G, TB	0.12	34.75	33.00	33.05	30.10
04. Force 3G, IF	0.12	30.40	29.90	28.70	34.10
05. Lorsban 15G, TB	1.2	31.65	29.40	32.80	35.00
06. Lorsban 15G, IF	1.2	31.65	33.90	29.50	33.75
07. Counter SB 20G, IF	1.2	31.70	21.00	30.10	34.30
08. Smartchoice SB 5G, IF	0.25	31.20	31.10	28.00	33.05
09. 7210/P1250, ST	1.25mg	31.45	25.85	28.80	29.30
10. Check 7210/P250	0.250mg	33.00	34.10	29.30	33.80
11. 2K594 SS, PIP		30.00	29.60	31.25	24.50
12. 2K592 HXT, PIP		31.10	32.20	30.10	37.20
13. 2K592 HXT+Lorsban15G, PIP	1.2	21.10	21.60	21.10	25.10
14. OAM+Force 3G PIP	0.12	23.60	33.50	27.50	30.30
15. OAM, PIP		23.80	29.20	29.75	31.90

<sup>1</sup>Planted, 24 May 2011; Sampled, 17 June 2011.<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®Table 13. Node injury. Pinney-Purdue Ag Center, Wanatah, IN.<sup>1</sup>

Treatment, Place	Oz ai /1000 ft	Node	
		Injury	SEM
01. Aztec 2.1G, TB	0.14	0.132 a	0.0625
02. Aztec 2.1G, IF	0.14	0.042 a	0.0103
03. Force 3G, TB	0.12	0.262 a	0.1084
04. Force 3G, IF	0.12	0.092 a	0.0202
05. Lorsban 15G, TB	1.2	0.168 a	0.0175
06. Lorsban 15G, IF	1.2	0.180 a	0.0414
07. Counter SB 20G, IF	1.2	0.045 a	0.0087
08. Smartchoice SB 5G, IF	0.25	0.110 a	0.0220
09. 7210/P1250, ST	1.25mg	0.105 a	0.0272
10. Check 7210/P250	0.250mg	0.790 b	0.4230
11. 2K594 SS, PIP		0.060 a	0.0178
12. 2K592 HXT, PIP		0.102 a	0.0149
13. 2K592 HXT+Lorsban15G, PIP	1.2	0.042 a	0.0103
14. OAM+Force 3G PIP	0.12	0.055 a	0.0096
15. OAM, PIP		0.055 a	0.0087

<sup>1</sup>Planted, 24 May 2011; Sampled, 28 July 2011.<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®<sup>3</sup>ANOVA PR>F=(0.0060). LSD alpha=0.05

Table 14. Node injury by replication. Pinney-Purdue Ag Center, Wanatah, IN.<sup>1</sup>

Treatment, Place	Oz ai /1000 ft	Node Injury			
		R1	R2	R3	R4
01. Aztec 2.1G	0.14 TB	0.05	0.13	0.04	0.31
02. Aztec 2.1G	0.14 IF	0.02	0.06	0.03	0.06
03. Force 3G	0.12 TB	0.50	0.39	0.11	0.05
04. Force 3G	0.12 IF	0.09	0.06	0.07	0.15
05. Lorsban 15G	1.2 TB	0.21	0.13	0.15	0.18
06. Lorsban 15G	1.2 IF	0.15	0.27	0.08	0.22
07. Counter SB 20G	1.2 IF	0.05	0.05	0.06	0.02
08. Smartchoice SB 5G	0.25 IF	0.16	0.09	0.06	0.13
09. 7210/1250	1.25mg ST	0.18	0.11	0.06	0.07
10. Check 7210/250	0.250mg PIP	0.63	2.03	0.27	0.23
11. 2K594 SS		0.06	0.11	0.04	0.03
12. 2K592 HXT		0.11	0.14	0.07	0.09
13. 2K592 HXT+Lorsban15G	1.2 TB	0.07	0.02	0.04	0.04
14. OAM+Force 3G	0.12 TB	0.07	0.03	0.05	0.07
15. OAM		0.06	0.03	0.07	0.06

<sup>1</sup>Planted, 24 May 2011; Sampled, 28 July 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®

Table 15. Root ratings consistency of performance at Throckmorton-Purdue Agricultural Center, Lafayette, IN, 2010<sup>1</sup>.

Treatment/Place <sup>2</sup>	Oz ai /1000 ft	Percentage Rating ≤ 0.25	
		Mean <sup>3</sup>	SEM
01. Aztec 2.1G, TB	0.14	95 a	5.0
02. Aztec 2.1G, IF	0.14	100 a	0.0
03. Force 3G, TB	0.12	80 a	14.1
04. Force 3G, IF	0.12	95 a	5.0
05. Lorsban 15G, TB	1.2	95 a	5.0
06. Lorsban 15G, IF	1.2	85 a	5.0
07. Counter SB 20G, IF	1.2	100 a	0.0
08. Smartchoice SB 5G, IF	0.25	100 a	0.0
09. 7210/P1250, ST	1.25mg	100 a	0.0
10. Check 7210/P250	0.250mg	55 b	15.0
11. 2K594 SS, PIP		100 a	0.0
12. 2K592 HXT, PIP		100 a	0.0
13. 2K592 HXT+Lorsban15G, PIP	1.2	100 a	0.0
14. OAM+Force 3G PIP	0.12	100 a	0.0
15. OAM, PIP		100 a	0.0

<sup>1</sup>Planted, 16 May 2011; Sampled, 20 July 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®.

<sup>3</sup>ANOVA PR>F=0.0001.

Table 16. Goose-necked plants per 17.4 ft. Pinney-Purdue Ag Center, Wanatah, IN.<sup>1</sup>

Treatment, Place <sup>2</sup>	Oz ai /1000 ft	Goose-necked Plants			
		R1	R2	R3	R4
01. Aztec 2.1G	0.14 TB	0	0	0	0
02. Aztec 2.1G	0.14 IF	0	0	0	0
03. Force 3G	0.12 TB	0	0	0	0
04. Force 3G	0.12 IF	0	0	0	0
05. Lorsban 15G	1.2 TB	0	0	0	0
06. Lorsban 15G	1.2 IF	0	0	0	0
07. Counter SB 20G	1.2 IF	0	0	0	0
08. Smartchoice SB 5G	0.25 IF	0	0	0	0
09. 7210/1250	1.25mg ST	0	0	0	0
10. Check 7210/250	0.250mg PIP	0	0	0	0
11. 2K594 SS		0	0	0	0
12. 2K592 HXT		0	0	0	0
13. 2K592 HXT+Lorsban15G	1.2 TB	0	0	0	0
14. OAM+Force 3G	0.12 TB	0	0	0	0
15. OAM		0	0	0	0

<sup>1</sup>Planted, 24 May 2011; Sampled, 28 October 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®  
No ANOVA

Table 17. Lodged plants per 17.4 ft. Pinney-Purdue Ag Center, Wanatah, IN. 2011<sup>1</sup>.

Treatment, Place <sup>2</sup>	Oz ai /1000 ft	Lodged Plants			
		R1	R2	R3	R4
01. Aztec 2.1G	0.14 TB	0	0	0	0
02. Aztec 2.1G	0.14 IF	0	0	0	0
03. Force 3G	0.12 TB	0	0	0	0
04. Force 3G	0.12 IF	0	0	0	0
05. Lorsban 15G	1.2 TB	0	0	0	0
06. Lorsban 15G	1.2 IF	0	0	0	0
07. Counter SB 20G	1.2 IF	0	0	0	0
08. Smartchoice SB 5G	0.25 IF	0	0	0	0
09. 7210/1250	1.25mg ST	0	0	0	0
10. Check 7210/250	0.250mg PIP	0	1	0	0
11. 2K594 SS		0	0	0	0
12. 2K592 HXT		0	1	0	0
13. 2K592 HXT+Lorsban15G	1.2 TB	0	0	0	0
14. OAM+Force 3G	0.12 TB	0	0	0	0
15. OAM		0	0	0	0

<sup>1</sup>Planted, 24 May 2011; Sampled, 28 October 2011.

<sup>2</sup>TB=T-band, IF=in-furrow, ST=seed treatment, SB=SmartBox®  
No ANOVA

## Appendix I. Weather Observations 2011

Table A1. Throckmorton-Purdue Agricultural Center, Lafayette, IN.

May 2011

Date	Precip (inch)	Air (degF)	Max Air (degF)	Min Air (degF)	Soil Bare <sup>o</sup> F	Soil GrassF <sup>o</sup>
05/01	0.01	61	74	48	58	56
05/02	0.00	61	68	48	62	60
05/03	0.01	49	55	46	55	57
05/04	0.02	50	59	42	56	57
05/05	0.00	46	56	37	53	55
05/06	0.00	52	64	35	56	54
05/07	0.22	57	67	49	59	57
05/08	0.01	60	70	52	60	58
05/09	0.00	60	71	50	66	59
05/10	0.01	66	77	53	66	60
05/11	0.02	75	87	64	74	64
05/12	0.00	77	89	67	78	67
05/13	0.01	75	87	67	77	68
05/14	0.01	71	83	60	76	68
05/15	0.00	56	69	50	68	65
05/16	0.07	50	54	44	57	61
05/17	0.06	50	59	41	60	59
05/18	0.00	51	58	42	57	58
05/19	0.00	56	62	49	59	58
05/20	0.02	62	75	49	68	62
05/21	0.03	69	82	50	73	64
05/22	0.22	69	77	62	68	64
05/23	0.20	72	84	63	71	66
05/24	0.05	71	83	63	71	67
05/25	0.00	71	84	61	76	69
05/26	2.10	67	78	61	69	68
05/27	0.59	54	63	46	60	64
05/28	0.03	54	59	47	59	61
05/29	0.70	61	69	54	63	62
05/30	0.06	74	83	63	71	66
05/31	0.02	80	90	68	75	70

Table A2. Throckmorton-Purdue Agricultural Center, Lafayette, IN.

June 2011

Date	Precip (inch)	Air (degF)	Max Air (degF)	Min Air (degF)	Soil Bare <sup>o</sup> F	Soil GrassF <sup>o</sup>
06/01	0.02	80	89	73	78	72
06/02	0.00	76	85	65	78	71
06/03	0.00	71	81	59	73	69
06/04	0.00	76	87	67	79	70
06/05	0.30	80	96	70	82	72
06/06	0.06	72	85	65	74	71
06/07	0.01	78	89	64	78	72
06/08	0.01	83	94	72	85	75
06/09	0.01	84	94	72	86	75
06/10	0.06	74	87	66	78	73
06/11	0.08	78	91	67	82	74
06/12	0.14	71	79	59	75	73
06/13	0.00	62	72	54	74	71
06/14	0.00	65	78	56	78	70
06/15	0.01	69	80	58	77	71
06/16	0.46	67	76	58	71	69
06/17	0.02	73	84	63	75	71
06/18	0.01	76	86	64	80	73
06/19	0.12	73	81	68	77	74
06/20	0.00	72	81	67	74	73
06/21	1.68	71	78	65	72	71
06/22	0.04	77	86	69	77	74
06/23	0.06	71	79	66	72	72
06/24	0.00	66	70	62	68	69
06/25	0.00	64	67	62	66	67
06/26	0.09	70	80	60	76	71
06/27	0.19	69	77	64	74	71
06/28	0.30	73	83	65	74	72
06/29	0.01	72	79	62	79	73
06/30	0.01	71	84	57	81	74

Table A3. Throckmorton-Purdue Agricultural Center, Lafayette, IN.

July 2011

Date	Precip (inch)	Air (degF)	Max Air (degF)	Min Air (degF)	Soil Bare <sup>o</sup> F	Soil GrassF <sup>o</sup>
07/01	0.01	75	86	60	83	75
07/02	0.23	70	75	65	72	72
07/03	1.18	79	91	68	80	75
07/04	0.08	77	87	68	80	77
07/05	0.01	75	84	64	83	79
07/06	0.02	74	87	59	84	78
07/07	0.02	78	88	64	87	80
07/08	0.00	76	86	68	85	80
07/09	0.01	76	86	66	86	80
07/10	0.01	77	88	65	87	80
07/11	0.01	79	89	67	89	80
07/12	0.01	83	94	74	90	82
07/13	0.01	81	90	71	90	83
07/14	0.01	73	80	64	87	81
07/15	0.00	71	81	59	85	79
07/16	0.01	74	85	63	87	79
07/17	0.01	76	90	62	86	79
07/18	0.01	81	91	70	91	82
07/19	0.01	82	90	73	90	82
07/20	0.00	85	96	77	93	84
07/21	0.00	85	95	77	94	85
07/22	0.01	86	97	75	95	85
07/23	0.00	85	96	76	95	86
07/24	0.00	84	94	76	94	86
07/25	0.11	77	86	71	83	82
07/26	0.03	76	87	67	84	82
07/27	0.02	78	89	65	87	82
07/28	0.01	80	91	69	88	83
07/29	0.01	83	93	75	91	83
07/30	0.01	79	88	75	86	82
07/31	0.01	80	91	72	90	83

Table A4. Throckmorton-Purdue Agricultural Center, Lafayette, IN.

August 2011

Date	Precip (inch)	Air (degF)	Max Air (degF)	Min Air (degF)	Soil Bare <sup>o</sup> F	Soil GrassF <sup>o</sup>
08/01	0.01	81	95	65	91	84
08/02	0.00	80	92	66	91	84
08/03	0.01	82	92	72	92	84
08/04	0.02	79	86	67	88	83
08/05	0.01	74	87	60	87	81
08/06	0.00	76	88	67	86	81
08/07	0.00	79	88	71	88	82
08/08	0.05	79	90	69	87	83
08/09	0.23	75	87	64	83	81
08/10	0.06	76	86	62	80	80
08/11	0.00	68	77	59	75	77
08/12	0.00	68	82	53	76	76
08/13	0.00	70	82	55	79	76
08/14	0.26	72	88	61	81	78
08/15	0.01	67	76	60	72	74
08/16	0.00	69	80	57	75	75
08/17	0.00	67	83	51	77	75
08/18	0.00	74	88	59	81	76
08/19	0.00	77	88	65	83	79
08/20	0.00	75	90	64	83	79
08/21	0.00	74	86	64	80	78
08/22	0.00	72	82	60	81	78
08/23	0.00	69	84	54	80	77
08/24	0.24	69	82	56	74	74
08/25	0.13	79	91	68	78	76
08/26	0.00	71	82	61	76	77
08/27	0.00	67	83	51	76	75
08/28	0.00	71	85	56	78	75
08/29	0.00	68	79	58	78	75
08/30	0.00	69	82	60	78	75
08/31	0.00	69	83	53	78	74



Table A5. Throckmorton-Purdue Agricultural Center, Lafayette, IN.

## September

Date	Precip (inch)	Air (degF)	Max Air (degF)	Min Air (degF)	Soil Bare <sup>o</sup> F	Soil GrassF <sup>o</sup>
09/01	0.03	77	92	64	81	76
09/02	0.00	83	97	70	86	79
09/03	0.00	82	98	69	87	80
09/04	0.00	80	96	68	86	80
09/05	0.04	68	74	57	75	76
09/06	0.00	59	66	52	69	70
09/07	0.01	57	67	47	67	67
09/08	0.00	61	73	50	69	68
09/09	0.25	60	63	56	66	67
09/10	0.46	64	72	60	67	68
09/11	0.00	66	77	58	69	70
09/12	0.00	68	81	57	71	71
09/13	0.00	71	86	58	73	71
09/14	0.00	73	85	60	76	72
09/15	0.22	59	71	52	67	69
09/16	0.00	52	63	40	59	64
09/17	0.00	53	64	44	58	62
09/18	0.00	59	72	51	66	64
09/19	0.05	62	71	54	64	64
09/20	0.45	66	71	61	67	66
09/21	0.00	65	79	54	67	67
09/22	0.00	67	78	50	68	68
09/23	0.08	58	69	51	64	65
09/24	0.01	57	68	52	63	65
09/25	0.21	56	64	52	60	64
09/26	0.78	57	62	54	59	62
09/27	0.04	58	66	52	60	62
09/28	0.19	55	56	53	57	61
09/29	0.46	56	66	52	59	61
09/30	0.01	59	80	47	58	61

Table A6. Throckmorton-Purdue Agricultural Center, Lafayette, IN.

## October

Date	Precip (inch)	Air (degF)	Max Air (degF)	Min Air (degF)	Soil Bare <sup>o</sup> F	Soil GrassF <sup>o</sup>
10/01	0.00	53	61	43	55	60
10/02	0.00	48	60	39	54	58
10/03	0.00	50	68	36	55	57
10/04	0.00	56	75	36	58	57
10/05	0.00	69	81	55	68	60
10/06	0.00	65	84	46	64	60
10/07	0.00	67	85	50	66	61
10/08	0.00	69	87	55	68	63
10/09	0.00	68	85	54	68	63
10/10	0.00	66	83	52	67	63
10/11	0.00	65	81	49	67	63
10/12	0.00	66	83	52	67	63
10/13	0.00	63	76	52	66	63
10/14	0.15	60	65	54	63	63
10/15	0.00	54	64	47	54	60
10/16	0.00	53	64	45	54	57
10/17	0.00	58	70	48	56	57
10/18	0.07	49	60	34	52	55
10/19	0.20	45	47	44	50	54
10/20	1.00	45	47	44	47	53
10/21	0.16	43	45	40	45	50
10/22	0.00	43	56	33	47	51
10/23	0.00	48	65	31	47	50
10/24	0.00	56	69	45	52	52
10/25	0.03	54	64	43	54	54
10/26	0.00	61	75	44	55	54
10/27	0.08	57	70	47	57	56
10/28	0.09	44	49	33	49	54
10/29	0.00	42	55	32	47	51
10/30	0.00	44	57	33	46	51
10/31	0.00	46	62	29	45	49

Table A7. Throckmorton-Purdue Agricultural Center, Lafayette, IN.

## November

Date	Precip (inch)	Air (degF)	Max Air (degF)	Min Air (degF)	Soil Bare <sup>o</sup> F	Soil GrassF <sup>o</sup>
11/01	0.03	46	58	33	48	50
11/02	0.00	51	70	32	48	49
11/03	0.00	56	71	46	52	51
11/04	0.37	48	53	45	48	51
11/05	0.00	45	54	37	46	50
11/06	0.00	45	61	33	43	48
11/07	0.00	53	63	42	48	49
11/08	0.25	54	58	51	53	52
11/09	0.00	60	70	53	56	53
11/10	0.31	50	64	36	52	54
11/11	0.01	35	40	31	39	48
11/12	0.00	36	48	26	38	45
11/13	0.00	51	63	39	44	47
11/14	0.00	60	68	53	53	50
11/15	0.34	57	70	48	55	54
11/16	0.00	53	61	48	53	53
11/17	0.00	42	53	35	46	51
11/18	0.00	32	39	26	36	46
11/19	0.00	39	50	29	36	42
11/20	0.00	50	60	44	45	44
11/21	0.03	48	61	40	49	48
11/22	0.00	44	49	40	46	47
11/23	0.50	44	45	41	45	47
11/24	0.00	41	49	33	44	46
11/25	0.01	42	49	37	43	46
11/26	0.00	50	60	40	45	46
11/27	0.10	56	65	51	51	49
11/28	0.17	43	57	38	46	49
11/29	0.14	37	39	36	40	45
11/30	1.39	36	38	32	37	42

## Appendix II. Weather Observations 2011

Table B1. Pinney-Purdue Agricultural Center, Wanatah, IN.

May 2011

Date	Precip (inch)	Air (degF)	Max Air (degF)	Min Air (degF)	Soil Bare <sup>o</sup> F	Soil GrassF <sup>o</sup>
05/01	0.01	58	71	45	53	53
05/02	0.03	58	65	47	58	57
05/03	0.01	50	58	43	54	55
05/04	0.00	45	53	39	53	54
05/05	0.00	43	53	32	53	53
05/06	0.03	49	62	33	52	52
05/07	0.02	56	67	45	56	55
05/08	0.40	55	64	49	54	55
05/09	0.01	58	70	46	59	57
05/10	0.00	63	72	50	59	58
05/11	0.00	73	89	59	66	61
05/12	0.00	74	90	60	71	66
05/13	0.03	74	89	60	73	67
05/14	0.06	62	81	45	68	67
05/15	0.51	47	51	44	55	60
05/16	0.60	46	49	43	52	56
05/17	0.00	44	51	39	53	56
05/18	0.00	49	58	39	54	56
05/19	0.01	54	62	48	57	58
05/20	0.01	56	69	48	61	60
05/21	0.00	62	76	47	66	63
05/22	0.03	66	75	57	64	64
05/23	0.27	69	86	60	68	65
05/24	0.00	71	82	64	68	66
05/25	0.06	62	75	48	69	67
05/26	1.07	60	71	47	63	64
05/27	0.63	48	60	43	56	60
05/28	0.00	53	59	46	58	59
05/29	0.33	58	62	54	59	60
05/30	0.34	65	74	57	63	62
05/31	0.23	77	89	64	71	67

Table B2. Pinney-Purdue Agricultural Center, Wanatah, IN.

June 2011

Date	Precip (inch)	Air (degF)	Max Air (degF)	Min Air (degF)	Soil Bare <sup>o</sup> F	Soil GrassF <sup>o</sup>
06/01	0.01	79	88	69	73	70
06/02	0.00	72	82	61	72	69
06/03	0.04	67	78	55	71	69
06/04	0.00	74	85	63	73	70
06/05	0.01	77	92	64	77	73
06/06	0.00	71	84	58	74	72
06/07	0.00	76	90	57	76	72
06/08	0.00	84	96	72	83	76
06/09	0.00	85	96	73	84	78
06/10	1.17	60	73	51	71	73
06/11	0.18	63	78	52	69	70
06/12	0.00	60	71	53	68	71
06/13	0.00	54	61	49	65	68
06/14	0.00	62	72	52	69	69
06/15	0.00	65	78	52	71	70
06/16	1.04	63	69	55	67	68
06/17	0.12	68	79	60	69	69
06/18	0.00	74	87	60	74	72
06/19	0.00	74	84	66	76	75
06/20	0.00	73	82	65	75	75
06/21	0.33	71	77	67	72	74
06/22	0.10	78	87	69	77	76
06/23	0.02	70	76	65	72	74
06/24	0.02	65	71	61	68	71
06/25	0.02	62	67	60	66	69
06/26	0.00	69	80	60	72	72
06/27	0.00	71	82	59	76	74
06/28	0.01	72	82	64	74	74
06/29	0.00	69	79	58	76	75
06/30	0.00	69	82	54	77	75

Table B3. Pinney-Purdue Agricultural Center, Wanatah, IN.

July 2011

Date	Precip (inch)	Air (degF)	Max Air (degF)	Min Air (degF)	Soil Bare <sup>o</sup> F	Soil GrassF <sup>o</sup>
07/01	0.30	72	87	57	78	76
07/02	0.39	68	76	65	70	71
07/03	1.29	79	91	69	76	75
07/04	0.00	73	84	65	77	78
07/05	0.00	72	82	61	77	78
07/06	0.00	75	88	57	78	78
07/07	0.00	76	85	64	81	81
07/08	0.00	71	80	63	77	78
07/09	0.00	71	83	59	79	78
07/10	0.00	74	87	58	81	79
07/11	0.00	78	88	66	84	81
07/12	0.28	77	88	69	81	80
07/13	0.00	75	85	65	82	81
07/14	0.00	69	76	60	81	80
07/15	0.01	69	82	58	80	79
07/16	0.00	73	86	64	83	80
07/17	0.00	76	88	64	84	81
07/18	0.00	80	91	65	88	83
07/19	0.00	82	90	75	87	84
07/20	0.39	82	90	73	86	85
07/21	0.00	83	95	72	86	85
07/22	0.00	85	97	75	89	86
07/23	0.22	79	88	71	85	85
07/24	0.00	79	91	70	83	83
07/25	0.24	75	85	69	80	81
07/26	0.01	74	84	65	80	80
07/27	0.00	74	85	63	82	81
07/28	0.00	76	88	64	82	80
07/29	0.23	80	89	77	82	81
07/30	1.77	75	83	66	79	79
07/31	0.01	75	91	61	81	80

Table B4. Pinney-Purdue Agricultural Center, Wanatah, IN.

August 2011

Date	Precip (inch)	Air (degF)	Max Air (degF)	Min Air (degF)	Soil Bare <sup>o</sup> F	Soil GrassF <sup>o</sup>
08/01	0.00	78	89	64	83	82
08/02	0.00	79	90	68	84	83
08/04	0.00	74	81	63	80	81
08/05	0.00	72	82	61	79	79
08/06	0.00	75	90	63	82	80
08/07	0.13	76	87	68	82	82
08/08	0.18	74	87	65	81	81
08/09	0.40	71	85	62	79	80
08/10	0.00	71	82	63	76	79
08/11	0.00	66	75	56	75	77
08/12	0.00	67	80	51	77	76
08/13	0.00	68	80	53	78	77
08/14	0.27	69	85	61	78	77
08/15	0.96	67	75	59	73	74
08/16	0.00	67	78	55	73	74
08/17	0.00	67	82	52	74	75
08/18	0.00	70	84	54	76	76
08/19	0.00	72	86	60	80	78
08/20	0.00	72	88	57	80	78
08/21	0.27	69	79	63	75	76
08/22	0.01	70	78	59	76	77
08/23	0.00	68	82	54	75	76
08/24	0.15	66	77	56	71	74
08/25	0.00	78	89	67	76	75
08/26	0.00	68	78	55	76	76
08/27	0.00	65	83	49	75	74
08/28	0.00	69	84	57	76	75
08/29	0.00	65	75	53	74	74
08/30	0.00	65	82	51	74	73
08/31	0.00	65	78	49	72	72

Table B5. Pinney-Purdue Agricultural Center, Wanatah, IN.

## September

Date	Precip (inch)	Air (degF)	Max Air (degF)	Min Air (degF)	Soil Bare <sup>o</sup> F	Soil GrassF <sup>o</sup>
09/01	0.07	73	87	62	76	74
09/02	0.00	80	94	66	80	76
09/03	0.00	82	95	71	82	78
09/04	0.53	75	93	65	80	78
09/05	0.04	66	74	55	74	75
09/06	0.00	58	64	51	66	70
09/07	0.00	56	68	44	64	67
09/08	0.00	60	71	49	66	67
09/09	0.11	60	64	53	64	67
09/10	0.69	64	73	58	67	68
09/11	0.00	65	77	55	69	69
09/12	0.03	69	81	60	72	72
09/13	0.00	71	85	58	71	72
09/14	0.00	65	76	49	69	71
09/15	0.18	53	68	45	62	66
09/16	0.01	49	61	37	59	63
09/17	0.00	49	61	36	57	61
09/18	0.00	57	69	47	61	62
09/19	0.10	58	66	48	60	62
09/20	0.05	62	68	49	64	64
09/21	0.02	60	77	47	64	64
09/22	0.00	62	76	48	65	65
09/23	0.00	56	66	47	62	64
09/24	0.00	52	65	40	60	62
09/25	0.01	53	64	44	60	61
09/26	0.33	56	64	51	59	61
09/27	0.31	57	66	52	60	61
09/28	0.61	55	61	52	59	61
09/29	0.30	56	65	52	60	61
09/30	0.18	56	69	47	58	61



Table B6. Pinney-Purdue Agricultural Center, Wanatah, IN.

## October

Date	Precip (inch)	Air (degF)	Max Air (degF)	Min Air (degF)	Soil Bare <sup>o</sup> F	Soil GrassF <sup>o</sup>
10/01	0.21	50	55	45	54	58
10/02	0.01	46	54	34	53	56
10/03	0.00	46	62	31	52	55
10/04	0.00	50	69	35	55	56
10/05	0.00	54	78	37	57	58
10/06	0.00	60	83	40	60	59
10/07	0.00	64	82	44	62	61
10/08	0.00	69	85	51	64	62
10/09	0.00	68	84	54	65	63
10/10	0.00	64	82	46	65	64
10/11	0.00	62	79	45	64	63
10/12	0.00	63	81	46	65	63
10/13	0.00	61	77	46	64	63
10/14	0.67	57	63	53	61	62
10/15	0.01	53	63	46	56	59
10/16	0.00	53	62	45	53	56
10/17	0.08	51	62	46	53	56
10/18	0.00	49	62	38	49	53
10/19	0.04	44	52	37	49	52
10/20	1.32	45	47	42	48	51
10/21	1.21	44	46	41	47	49
10/22	0.00	42	56	31	47	49
10/23	0.00	46	65	29	47	49
10/24	0.00	52	68	34	50	51
10/25	0.31	53	65	44	53	53
10/26	0.28	58	71	39	51	52
10/27	0.01	50	56	45	52	53
10/28	0.20	42	50	31	48	51
10/29	0.01	40	55	29	45	48
10/30	0.00	41	55	29	44	47
10/31	0.08	42	57	26	42	45

Table B7. Pinney-Purdue Agricultural Center, Wanatah, IN.

## November

Date	Precip (inch)	Air (degF)	Max Air (degF)	Min Air (degF)	Soil Bare <sup>o</sup> F	Soil GrassF <sup>o</sup>
10/01	0.21	50	55	45	54	58
11/01	0.01	44	55	33	55	48
11/02	0.00	47	66	28	53	47
11/03	0.00	55	67	46	54	49
11/04	0.08	47	50	42	49	49
11/05	0.00	42	54	32	53	47
11/06	0.00	43	57	32	51	45
11/07	0.00	52	62	39	52	47
11/08	0.17	53	56	51	53	50
11/09	0.28	55	59	50	54	52
11/10	0.36	48	59	35	56	52
11/11	0.00	35	39	31	43	45
11/12	0.00	34	43	27	42	42
11/13	0.00	46	59	33	48	43
11/14	0.00	58	70	47	54	49
11/15	0.45	45	49	39	48	47
11/16	0.01	47	60	32	53	47
11/17	0.00	39	50	28	47	46
11/18	0.00	29	35	24	38	40
11/19	0.00	37	48	25	38	38
11/20	0.00	48	57	43	47	42
11/21	0.01	45	57	37	48	45
11/22	0.11	37	42	33	43	42
11/23	0.86	40	42	36	42	42
11/24	0.00	40	46	35	46	42
11/25	0.00	40	45	34	44	42
11/26	0.01	47	58	36	49	43
11/27	0.17	54	60	48	51	47
11/28	0.44	42	56	37	51	47
11/29	0.05	35	38	32	43	43
11/30	0.51	38	41	36	40	41