2010
Southwest Oklahoma Entomology Report

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2010 State Extension Cotton Integrated Pest Management – Entomology

This document contains Reports of applied research/demonstration projects conducted by Oklahoma State University dealing with management of arthropod pests and production practices. Objectives of the studies were to find more cost effective ways to manage pests and to improve production practices. Experiments were conducted with commercial agricultural producers in cooperation with county Extension agents, county committees, agricultural consultants, and agribusiness companies. Oklahoma farm cooperators are acknowledge for providing land, equipment, labor, time, ideas, and other assistance in support of these products.

Trade names of commercial products used in this report are included for better understanding in clarity. Reference to commercial products or trade names are made with understanding that no discrimination is intended and no endorsement by the Oklahoma State University System is implied. Results from one experiment may not represent conclusive evidence that the same response occur where conditions vary.

It should be emphasized that the data from only one year should not be used for major production decisions, and at least 2-3 year's results should be utilized before production practices should be modified. This report sometimes includes data generated from "off-label" applications or practices. Although this data is presented, OSU does not recommend the implementation of any "off-label"use of any product.

We are very appreciative of the contributions made by the OSU Integrated Pest Management Program. We also appreciate the support from producers, County Extension Educators, OSU Agricultural Experiment Station and ginners. Cotton Incorporated, through the Oklahoma State Support Committee, has provided assistance through partial funding of several projects. The Oklahoma Cotton Council has made tremendous contributions to our educational programs and we are grateful for their continued support. A special thanks goes also to the following organizations, whose contributions make it possible to maintain and expand our research and demonstration programs and distribute results.

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Cotton Growers Cooperative Cotton
Oklahoma Cotton Council
Syngenta Crop Protection
Helena Chemical
Valent
OSU IPM Program

This report and others are available for previous years at the following web site http://www.osu.altus.ok.us/ . If you have comments or questions about the reports herein, contact:

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Rocky Thacker, Experiment Station Superintendent
Toby Kelley, Assistant Experiment Station Superintendent
Greg Chavez, Field Assistant
Lynn Halford, Field Assistant
Kyle Sebree, Field Assistant

Mike Johnson, Cooperator
Terry White, Cooperator

Entomology Activities

Insect monitoring is a key component in a successful IPM program. Trapping activities in 2010 covered cotton growing regions of Southwest and Northern Oklahoma. Trapping activities were centered on the beet armyworm and the bollworm complex. Population trends, insect updates, and control tips are published in the IPM Newsletter and distributed to the state's cotton producers and consultants to help formulate management strategies to enhance profitability.

Bollgard II™ technology was the focus of this year's research. Monetary support received throughout the year permitted this applied research to continue. In addition to State IPM funds, I want to thank all 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 2010

A total of 274,264 acres were planted and harvested in 2010. The state's production average as projected was 800 lbs. of lint per acre. Insect pressure was light in most areas.

Ongoing Research Projects

Several Bt cotton trials were conducted in 2010 to evaluate the value of this technology under Oklahoma conditions. Early season pests were was also the target of several trials in the state.

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Bollworm / Tobacco Budworm and Beet Armyworm Monitoring

The bollworm/tobacco budworm complex has been the target of 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 the communities of Altus, Hollis and Tipton. In addition to Heliothine activity, beet armyworm movements were also monitored at each location. Traps were maintained between June 1 and September 1, 2009.

Moth Pheromone Trap Catch Totals for Selected Regions of Oklahoma, Summer 2010.

Bollworm	
Altus	Tipton
202	226
Tobacco Budworm	
Altus	Tipton
37	63
Beet Armyworm	
Altus	Tipton
33	13

Although both species do coexist and are considered the same by growers, 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 528 moths were captured between the weeks of June 1 and October 1. Bollworms comprised 81.1% of the total catch in 2010 (Figure 1).

Figure 1. Species composition of moths trapped across Oklahoma, Summer 2010.

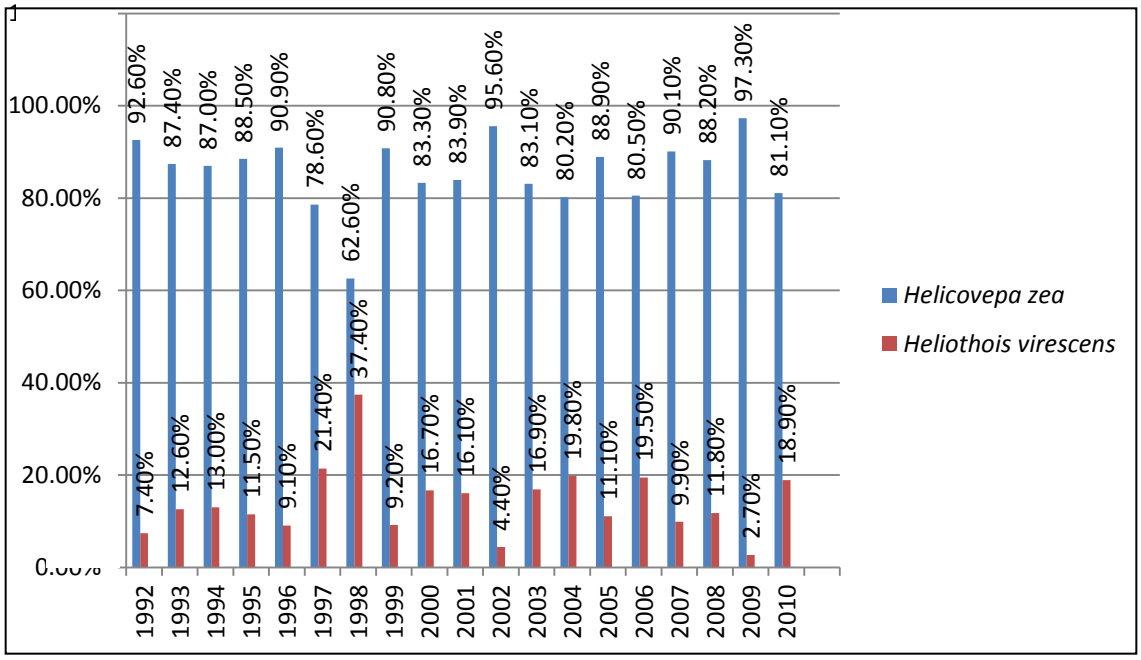
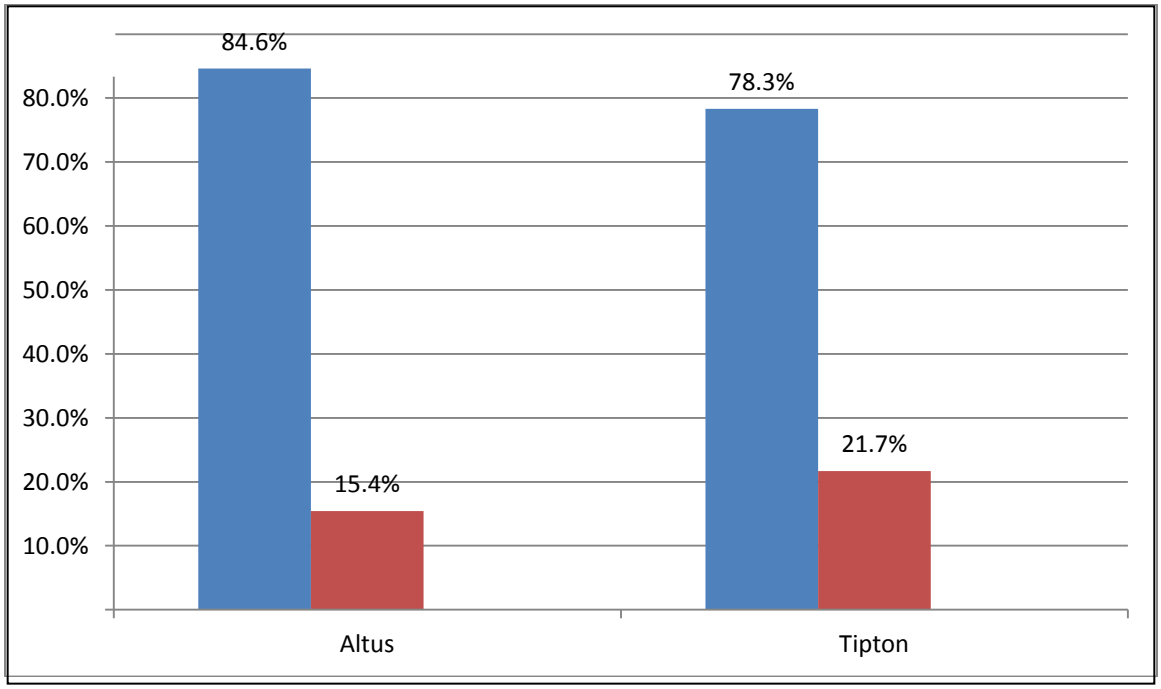


Figure 2. Species composition of trapped moths by production region, 2010.



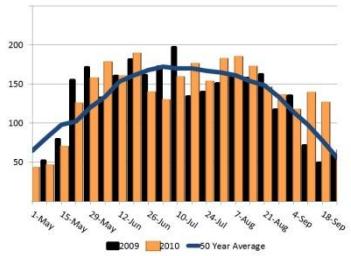
Helicoverpa zea - Corn Earworm moth (Bollworm)
Heliothis virescens - Tobacco Budworm moth

Growing Degree Days Accumulation For Select Locations Across Oklahoma, Summer 2010.

ALTUS

Growing Degree Days (GDD)

	50 year	2009	2010
May	469.9	278.5	337.9
June	616.9	659.9	713.9
July	678.3	704.8	667.9
August	761.1	674.5	728.0
September	354.7	372.1	481.7
Total	**2,880.9**	**2,689.8**	**2,929.4**



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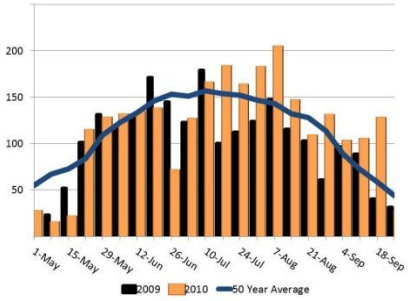
Growing Degree Days (GDD)

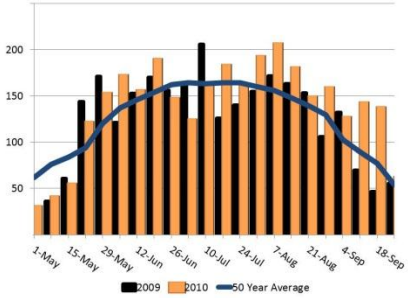
	50 year	2009	2010
May	389.7	201.5	217.4
June	556.8	588.8	506.3
July	615.2	562.5	689.5
August	665.8	509.3	689.2
September	266.5	285.6	398.7
Total	**2,494.0**	**2,147.7**	**2,501.1**



HOBART

Growing Degree Days (GDD)

	50 year	2009	2010
May	437.9	211.1	303.2
June	598.8	616.4	706.7
July	654.7	691.7	685.6
August	731.1	680.1	791.9
September	332.7	357.9	507.0
Total	**2,755.2**	**2,557.2**	**2,994.4**



Bollgard II™ Variety Demonstration 2010

Cooperator: Terry White
Planting Date: May 4, 2010
Seeding Rate: 11.5 lbs/acre

Location: Harmon County
Heat units accumulated: 2,865.2
Five Irrigations

Pesticide Usage:
Roundup WeatherMax (22 oz / acre) over-the-top application + Orthene (5 oz/acre) May 20

Vydate 0.18 lbs ai/acre + June 10

1 qt/acre of Pentium July 20

Harvest Aid applied:
Ethephon (32 oz / acre) + Ginstar (7 oz / acre) September 15
Ethephon (32 oz / acre) September 22

Table 1. Stand Densities and Lint Production White's Farm - Summer 2010.

Variety	Stand density plants/acre		Lint Yield October 4
	May 21	June 7	
FM 1740 B2F	41,000	42,000	1,885
DP 1048 B2F	43,000	41,000	1,666
DP 1032 B2F	42,000	41,000	1,612
DP 0924 B2F	42,000	40,000	1,577
ST 4288 B2F	42,000	41,000	1,577
Phy 375 WRF	40,000	42,000	1,565
FM 9170 B2F	42,000	40,000	1,442
DP 1034 B2F	41,000	43,000	1,386
DP 0935 B2F	40,000	42,000	1,368
DP 1044 B2F	43,000	43,000	1,172

Mike Johnson Side Dress Trial

Objectives:
Seed treatment and Temik evaluation

Crop Description

Crop 1: GOSHI Gossypium hirsutum Cotton, American upland
Description: Cotton
BBCH Scale: BCOT **Planting Date:** 22/Jun/2010
Rate, Unit: 46000 S/A
Row Spacing, Unit: 40 IN
Seed Bed: COARSE/TRASHY **Soil Temperature, Unit:** 75 F
Soil Moisture: DRY

Application Description

	A
Application Date:	22/Jul/2010
Time of Day:	8:30 AM
Application Method:	KNIFE
Application Timing:	PREBLO
Application Placement:	SIDEDRESS
Applied By:	Terry Pitts
Air Temperature, Unit:	82 F
% Relative Humidity:	54
Wind Velocity, Unit:	19 MPH
Dew Presence (Y/N):	n
Water Hardness:	na
Soil Temperature, Unit:	79 F
Soil Moisture:	ADEQUATE
% Cloud Cover:	0

Application Equipment

	A
Appl. Equipment:	Sidedress
Ground Speed, Unit:	2 MPH
Incorporation Equip.:	knife
Hours to Incorp.:	0.01
Incorp. Depth, Unit:	2 IN

Part Rated Rating Date Rating Data Type Rating Unit			Stand Count 29/Jun/2010 Plants /acre	Stand Count 7/Jul/2010 Plants /acre	Vigor 27/Jul/2010 Vigor rating	Thrips 7/Jul/2010 Damage 1-5	Stand Count 13/Jul/2010 Plants /acre	Vigor 13/Jul/2010 Vigor rating
Trt No. Treatment Name	Rate	Rate Unit						
1 UNTREATED			34000 a	34750 a	4 a	1 a	31750 a	3 a
2 TEMIK 15G	3.5	lb/a	35000 a	36000 a	4 a	1 a	35500 a	4 a
3 TEMIK 15G	5.0	lb/a	34000 a	35250 a	4 a	1 a	33750 a	4 a
4 AERIS SEED APPLIED SYSTEM			37750 a	41000 a	4 a	1 a	37750 a	4 a
5 TEMIK 15G AERIS SEED APPLIED SYSTEM	5.0	lb/a	36750 a	39250 a	4 a	1 a	36000 a	4 a
6 TEMIK 15G TEMIK 15 G Sidedress	5.0 5.0	lb/a lb/a	37250 a	37750 a	4 a	1 a	35250 a	4 a
7 TEMIK 15G Sidedress	5.0	lb/a	38750 a	39500 a	4 a	1 a	32750 a	3 a
LSD (P=.05)			6407.7	6155.4	1.5	0.0	6885.4	1.0
Standard Deviation			4313.1	4143.3	1.0	0.0	4634.7	0.7
CV			11.91	11.01	25.94	0.0	13.36	18.36
Grand Mean			36214.29	37642.86	3.89	1.0	34678.57	3.68
Bartlett's X2			7.632	4.971	2.192	0.0	9.215	2.901
P(Bartlett's X2)			0.266	0.548	0.901	.	0.162	0.821
Replicate F			8.818	6.583	0.128	0.000	2.888	1.122
Replicate Prob(F)			0.0008	0.0034	0.9420	1.0000	0.0641	0.3665
Treatment F			0.768	1.325	0.315	0.000	0.786	2.322
Treatment Prob(F)			0.6048	0.2968	0.9207	1.0000	0.5918	0.0776

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.

Part Rated Rating Date Rating Data Type Rating Unit			Thrips 13/Jul/2010 Damage 1-5	Vigor 27/Jul/2010 Vigor rating	Thrips 27/Jul/2010 Damage 1-5	Vigor 4/Aug/2010 Vigor rating	Vigor 16/Sep/2010 Vigor rating	LINT 3/Nov/2010 LBS/ACRE
Trt No. Treatment Name	Rate	Rate Unit						
1 UNTREATED			1 a	2 a	1 a	4 a	3 a	414 a
2 TEMIK 15G	3.5	lb/a	1 a	2 a	1 a	4 a	4 a	425 a
3 TEMIK 15G	5.0	lb/a	1 a	1 a	1 a	4 a	4 a	419 a
4 AERIS SEED APPLIED SYSTEM			1 a	1 a	1 a	4 a	4 a	425 a
5 TEMIK 15G AERIS SEED APPLIED SYSTEM	5.0	lb/a	1 a	2 a	1 a	4 a	4 a	419 a
6 TEMIK 15G TEMIK 15 G Sidedress	5.0 5.0	lb/a lb/a	1 a	2 a	1 a	3 a	4 a	425 a
7 TEMIK 15G Sidedress	5.0	lb/a	1 a	3 a	1 a	3 a	4 a	414 a
LSD (P=.05)			0.0	1.0	0.0	0.9	1.5	43.3
Standard Deviation			0.0	0.7	0.0	0.6	1.0	29.2
CV			0.0	40.25	0.0	16.69	26.87	6.94
Grand Mean			1.0	1.75	1.0	3.68	3.71	420.16
Bartlett's X2			0.0	4.75	0.0	2.695	4.342	2.184
P(Bartlett's X2)			.	0.576	.	0.747	0.631	0.902
Replicate F			0.000	1.224	0.000	0.853	0.861	6.633
Replicate Prob(F)			1.0000	0.3298	1.0000	0.4833	0.4794	0.0033
Treatment F			0.000	2.184	0.000	1.042	0.538	0.117
Treatment Prob(F)			1.0000	0.0930	1.0000	0.4313	0.7726	0.9931

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.

Altus Cotton

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COMPARISON OF NEW TRANSGENIC VARIETIES AT ALTUS

Objectives:
Compare new varieties of transgenic varieties.

CROP AND INSECT DESCRIPTION
Planting Date: 5/6/10
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 54 F **Soil Moisture:** NORMAL

Plot Width, Unit: 13.33 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: SEEDBED
Tillage Type: CONVENTIONAL-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

Previous: Crops	**Pesticides**	**Year**
1. Cotton		2009

Insect Code Rating Data Type Rating Unit Rating Date # Subsamples, Dec.	Stand Count Plants /acre 20/May/2010	Stand Count Plants /acre 26/May/2010	Stand Count Plants /acre 31/May/2010	Bollworm Eggs /5 plts 17/Aug/2010	Bollworm Eggs /5 plts 23/Aug/2010	Yield GINOUT 8/Dec/2010 2	Yield LINT /acre 18/Nov/2010
Trt Treatment Rate No. Name Unit							
1 DP 1028 B2RF	18250 a	28250 a	28750 a	0 a	0 a	0.24 c	1067 b
2 DP 1032 B2RF	20750 a	28500 a	26000 a	0 a	0 a	0.25 b	1269 ab
3 DP 1034 B2RF	18000 a	26500 a	24500 a	0 a	0 a	0.24 c	1119 b
4 DP 1044 B2RF	21000 a	25000 a	25000 a	0 a	0 a	0.24 c	1496 a
5 DP 1048 B2RF	18000 a	29500 a	29250 a	0 a	0 a	0.25 b	1181 ab
6 DP 1050B2RF	22500 a	27250 a	32250 a	0 a	0 a	0.23 d	1255 ab
7 BCSX 1010 B2F	14250 a	28500 a	26000 a	0 a	0 a	0.24 c	1358 ab
8 BCSX 1030 B2F	20750 a	26500 a	27500 a	0 a	0 a	0.23 d	1155 b
9 BCSX 1040 B2F	20750 a	28000 a	27500 a	0 a	0 a	0.26 a	1512 a
10 BCSX 1160 B2F	21250 a	27250 a	28250 a	0 a	0 a	0.22 e	1201 ab
11 BCSX 1180 B2F	32750 a	28500 a	24500 a	0 a	0 a	0.24 c	1281 ab
LSD (P=.05)	16545.4	3455.5	4763.8	0.0	0.0	0.000	208.1
Standard Deviation	11458.8	2393.2	3299.2	0.0	0.0	0.000	144.1
CV	55.22	8.67	12.12	0.0	0.0	0.0	11.41
Grand Mean	20750.0	27613.64	27227.28	0.0	0.0	0.24	1263.06
Bartlett's X2	10.02	16.862	3.764	0.0	0.0	0.0	22.14
P(Bartlett's X2)	0.439	0.077	0.926	.	.	.	0.014*
Replicate F	3.105	2.935	1.545	0.000	0.000	0.000	1.626
Replicate Prob(F)	0.0412	0.0493	0.2232	1.0000	1.0000	1.0000	0.2042
Treatment F	0.643	1.121	2.046	0.000	0.000	0.000	3.981
Treatment Prob(F)	0.7658	0.3797	0.0634	1.0000	1.0000	1.0000	0.0016

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.

TEMIK / SOUTHERN CROPS / VARIOUS PESTS / LOCAL POSITIONING AT ALTUS

Objectives:
Seed treatment evaluation.

CROP AND INSECT DESCRIPTION
Planting Date: 5/6/10
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 54 F **Soil Moisture:** NORMAL

Plot Width, Unit: 13.33 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: SEEDBED
Tillage Type: CONVENTIONAL-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

Previous:	**Crops**	**Pesticides**	**Year**
1.	Cotton		2009

Part Rated Rating Date Rating Data Type Rating Unit				Stand Count 20/May/2010 Plants /acre	Stand Count 26/May/2010 Plants /acre	Stand Count 31/May/2010 Plants /acre	ADULT 26/May/2010 Thrips /5 plant	ADULT 31/May/2010 Thrips /5 plant
Trt No.	Treatment Name	Rate	Rate Unit					
1	UNTREATED			19250 a	28500 a	29250 a	0 a	1 a
2	TEMIK 15G	3.5	lb/a	28500 a	28250 a	28750 a	1 a	1 a
3	TEMIK 15G	5.0	lb/a	15250 a	28750 a	29500 a	1 a	0 a
4	AERIS SEED APPLIED SYSTEM			23500 a	27000 a	30500 a	1 a	1 a
5	TEMIK 15G AERIS SEED APPLIED SYSTEM	5.0	lb/a	21500 a	29000 a	29000 a	0 a	0 a
LSD (P=.05)				10808.4	2174.5	3802.9	0.9	1.2
Standard Deviation				7014.9	1411.3	2468.1	0.6	0.8
CV				32.48	4.99	8.4	160.78	145.64
Grand Mean				21600.0	28300.0	29400.0	0.35	0.55
Bartlett's X2				2.259	2.289	10.059	1.608	1.293
P(Bartlett's X2)				0.688	0.683	0.039*	0.448	0.731
Replicate F				0.339	21.523	3.962	1.000	0.286
Replicate Prob(F)				0.7978	0.0001	0.0355	0.4262	0.8348
Treatment F				1.973	1.218	0.300	1.421	1.052
Treatment Prob(F)				0.1630	0.3539	0.8726	0.2859	0.4213

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.

Part Rated Rating Date Rating Data Type Rating Unit				Damage 3/Jun/2010 Damage 1-5	ADULT 9/Jun/2010 Thrips /5 plant	LINT 8/Dec/2010 GIN TURNOUT PERCENT	LINT 8/Dec/2010 LBS/ACRE
Trt No.	Treatment Name	Rate	Rate Unit	6	7	9	10
1	UNTREATED			3 a	1 a	0.22 c	1157 a
2	TEMIK 15G	3.5	lb/a	2 b	1 a	0.23 b	1230 a
3	TEMIK 15G	5.0	lb/a	2 b	2 a	0.23 b	1170 a
4	AERIS SEED APPLIED SYSTEM			2 b	1 a	0.24 a	1278 a
5	TEMIK 15G AERIS SEED APPLIED SYSTEM	5.0	lb/a	2 b	1 a	0.24 a	1243 a
LSD (P=.05)				1.0	2.0	0.000	125.0
Standard Deviation				0.6	1.3	0.000	81.2
CV				29.11	129.42	0.0	6.68
Grand Mean				2.15	1.0	0.23	1215.79
Bartlett's X2				1.122	4.31	0.0	3.276
P(Bartlett's X2)				0.891	0.366	.	0.513
Replicate F				0.468	0.080	0.000	1.324
Replicate Prob(F)				0.7100	0.9698	1.0000	0.3123
Treatment F				4.660	0.522	0.000	1.571
Treatment Prob(F)				0.0168	0.7213	1.0000	0.2446

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.

PONCHO VOTiVO / COTTON / REPLICATED STRIPS FOR YIELD

Objectives:
Seed treatment evaluation.

CROP AND INSECT DESCRIPTION
Planting Date: 5/6/10
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 54 F **Soil Moisture:** NORMAL

Plot Width, Unit: 13.33 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: SEEDBED
Tillage Type: CONVENTIONAL-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

Previous:	**Crops**	**Pesticides**	**Year**
1.	Cotton		2009

Part Rated Rating Date Rating Data Type Rating Unit				Stand Count 20/May/2010 Plants /acre	Stand Count 26/May/2010 Plants /acre	Stand Count 31/May/2010 Plants /acre	ADULT 26/May/2010 Thrips / 5 plan	ADULTP 31/May/2010 Thrips / 5 plan
Trt No.	Treatment Name	Rate	Rate Unit					
1	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	15000 a	49750 a	29750 a	0 a	3 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
2	PONCHO VOTIVO	414	ml/100 kg	11750 a	23750 a	29750 a	0 a	1 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
3	PONCHO VOTIVO	828	ml/100 kg	10250 a	23250 a	29000 a	0 a	1 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
4	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	19750 a	25750 a	28500 a	0 a	0 a
	VOTIVO 24 OFS	828	ml/100 kg					
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
5	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	15750 a	26750 a	26250 a	0 a	1 a
	PONCHO VOTIVO	414	ml/100 kg					
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
6	PONCHO VOTIVO	828	ml/100 kg	17000 a	24750 a	29250 a	0 a	0 a
	GAUCHO 600FS	416.6	ml/100 kg					
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
7	TRILEX ADVANCED FS300	104.3	ml/100 kg	12250 a	24000 a	29000 a	0 a	0 a
	TALC	190	g/100 kg					
LSD (P=.05)				9589.3	26120.2	5368.0	0.0	2.8
Standard Deviation				6454.7	17581.9	3613.2	0.0	1.9
CV				44.41	62.16	12.55	0.0	241.32
Grand Mean				14535.72	28285.72	28785.72	0.0	0.79
Bartlett's X2				10.916	68.082	2.468	0.0	23.365
P(Bartlett's X2)				0.091	0.001*	0.872	.	0.001*
Replicate F				0.255	1.014	0.894	0.000	1.603
Replicate Prob(F)				0.8570	0.4096	0.4635	1.0000	0.2237
Treatment F				1.061	1.178	0.443	0.000	0.960
Treatment Prob(F)				0.4209	0.3609	0.8403	1.0000	0.4787

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.

Part Rated				ADULT	LINT	LINT
Rating Date				9/Jun/2010	8/Dec/2010	8/Dec/2010
Rating Data Type				Thrips	GIN TURNOUT	LBS/ACRE
Rating Unit				/ 5 plan	PERCENT	
Trt No.	Treatment Name	Rate	Rate Unit			
1	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	0 a	0.23 b	1185.56 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg			
	TALC	190	g/100 kg			
2	PONCHO VOTIVO	414	ml/100 kg	1 a	0.21 c	1139.29 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg			
	TALC	190	g/100 kg			
3	PONCHO VOTIVO	828	ml/100 kg	2 a	0.23 b	1217.44 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg			
	TALC	190	g/100 kg			
4	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	1 a	0.24 a	1273.54 a
	VOTIVO 24 OFS	828	ml/100 kg			
	TRILEX ADVANCED FS300	104.3	ml/100 kg			
	TALC	190	g/100 kg			
5	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	1 a	0.23 b	1146.09 a
	PONCHO VOTIVO	414	ml/100 kg			
	TRILEX ADVANCED FS300	104.3	ml/100 kg			
	TALC	190	g/100 kg			
6	PONCHO VOTIVO	828	ml/100 kg	0 a	0.23 b	1185.56 a
	GAUCHO 600FS	416.6	ml/100 kg			
	TRILEX ADVANCED FS300	104.3	ml/100 kg			
	TALC	190	g/100 kg			
7	TRILEX ADVANCED FS300	104.3	ml/100 kg	1 a	0.24 a	1257.06 a
	TALC	190	g/100 kg			
LSD (P=.05)				1.6	0.000	123.850
Standard Deviation				1.1	0.000	83.365
CV				149.67	0.0	6.94
Grand Mean				0.71	0.23	1200.65
Bartlett's X2				8.31	0.0	3.823
P(Bartlett's X2)				0.216	.	0.701
Replicate F				0.417	0.000	1.059
Replicate Prob(F)				0.7432	1.0000	0.3910
Treatment F				0.833	0.000	1.533
Treatment Prob(F)				0.5598	1.0000	0.2240

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.

BIOLOGICAL ST ENHANCEMENT / COTTON / VIGOR & YIELD ENHANCEMENT

Objectives:
Seed treatment evaluation.

CROP AND INSECT DESCRIPTION

Planting Date: 5/6/10
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 54 F **Soil Moisture:** NORMAL

Plot Width, Unit: 13.33 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: SEEDBED
Tillage Type: CONVENTIONAL-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

Previous:	Crops	Pesticides	Year
1.	Cotton		2009

Part Rated Rating Date Rating Data Type Rating Unit				Stand Count 20/May/2010 Plants /acre	Stand Count 26/May/2010 Plants /acre	Stand Count 31/May/2010 Plants /acre	ADULT 26/May/2010 Thrips /5 plant	ADULT 31/May/2010 Thrips /5 plant
Trt No.	Treatment Name	Rate	Rate Unit					
1	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	16750 a	28250 a	25000 a	0 a	1 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
2	PONCHO VOTIVO	828	mg ai/seed	10500 a	29000 a	27500 a	0 a	0 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
3	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	18500 a	28750 a	26750 a	1 a	1 a
	PONCHO VOTIVO	414	mg ai/seed					
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
4	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	17250 a	28750 a	28750 a	0 a	1 a
	PONCHO VOTIVO	828	mg ai/seed					
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	HEADS UP PLANT PROTECTANT	0.6	kg/100 kg					
	TALC	190	g/100 kg					
5	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	15500 a	28500 a	28500 a	0 a	0 a
	PONCHO VOTIVO	828	mg ai/seed					
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	KODIAK FL	32.6	kg/100 kg					
	TEST COMPOUND 2	32.6	kg/100 kg					
	TALC	190	g/100 kg					
6	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	16000 a	29750 a	28750 a	0 a	1 a
	PONCHO VOTIVO	828	mg ai/seed					
	KODIAK FL	32.6	kg/100 kg					
	TEST COMPOUND 2	32.6	kg/100 kg					
	TALC	190	g/100 kg					
7	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	16000 a	29250 a	27750 a	0 a	1 a
	PONCHO VOTIVO	828	mg ai/seed					
	HEADS UP PLANT PROTECTANT	0.6	kg/100 kg					
	TEST COMPOUND 2	32.6	kg/100 kg					
	TALC	190	g/100 kg					
LSD (P=.05)				10018.9	2752.4	4119.9	0.8	1.1
Standard Deviation				6743.9	1852.7	2773.2	0.5	0.7
CV				42.72	6.41	10.06	299.33	138.14
Grand Mean				15785.72	28892.86	27571.43	0.18	0.54
Bartlett's X2				3.337	2.222	3.012	2.413	2.705
P(Bartlett's X2)				0.765	0.898	0.807	0.491	0.745
Replicate F				10.949	4.561	3.059	0.125	0.239
Replicate Prob(F)				0.0003	0.0152	0.0548	0.9441	0.8679
Treatment F				0.565	0.288	0.950	0.500	0.826
Treatment Prob(F)				0.7526	0.9351	0.4847	0.8002	0.5647

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.

Part Rated Rating Date Rating Data Type Rating Unit				Damage 3/Jun/2010 Damage 1-5	ADULT 9/Jun/2010 Thrips /5 plant	LINT 8/Dec/2010 GIN TURNOUT PERCENT	LINT 8/Dec/2010 LBS/ACRE
Trt No.	Treatment Name	Rate	Rate Unit				
1	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	2 a	1 a	0.23 b	1231.10 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg				
	TALC	190	g/100 kg				
2	PONCHO VOTIVO	828	mg ai/seed	2 a	1 a	0.21 c	1043.66 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg				
	TALC	190	g/100 kg				
3	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	3 a	0 a	0.23 b	1205.29 a
	PONCHO VOTIVO	414	mg ai/seed				
	TRILEX ADVANCED FS300	104.3	ml/100 kg				
	TALC	190	g/100 kg				
4	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	2 a	1 a	0.24 a	1162.66 a
	PONCHO VOTIVO	828	mg ai/seed				
	TRILEX ADVANCED FS300	104.3	ml/100 kg				
	HEADS UP PLANT PROTECTANT	0.6	kg/100 kg				
	TALC	190	g/100 kg				
5	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	2 a	1 a	0.23 b	1208.33 a
	PONCHO VOTIVO	828	mg ai/seed				
	TRILEX ADVANCED FS300	104.3	ml/100 kg				
	KODIAK FL	32.6	kg/100 kg				
	TEST COMPOUND 2	32.6	kg/100 kg				
	TALC	190	g/100 kg				
6	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	3 a	1 a	0.23 b	1181.00 a
	PONCHO VOTIVO	828	mg ai/seed				
	KODIAK FL	32.6	kg/100 kg				
	TEST COMPOUND 2	32.6	kg/100 kg				
	TALC	190	g/100 kg				
7	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	2 a	0 a	0.24 a	1321.06 a
	PONCHO VOTIVO	828	mg ai/seed				
	HEADS UP PLANT PROTECTANT	0.6	kg/100 kg				
	TEST COMPOUND 2	32.6	kg/100 kg				
	TALC	190	g/100 kg				
LSD (P=.05)				1.4	1.3	0.000	187.042
Standard Deviation				1.0	0.8	0.000	125.901
CV				47.66	131.47	0.0	10.55
Grand Mean				2.0	0.64	0.23	1193.3
Bartlett's X2				3.888	4.245	0.0	11.689
P(Bartlett's X2)				0.692	0.515	.	0.069
Replicate F				1.153	0.067	0.000	1.212
Replicate Prob(F)				0.3549	0.9769	1.0000	0.3340
Treatment F				0.825	1.267	0.000	1.750
Treatment Prob(F)				0.5652	0.3208	1.0000	0.1667

AERIS-VOTiVO / COTTON / INSECT and NEMATODE

Objectives:
Seed treatment evaluation.

CROP AND INSECT DESCRIPTION
Planting Date: 5/6/10
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 54 F **Soil Moisture:** NORMAL

Plot Width, Unit: 13.33 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: SEEDBED
Tillage Type: CONVENTIONAL-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

Previous:	Crops	Pesticides	Year
1.	Cotton		2009

Part Rated Rating Date Rating Data Type Rating Unit				Stand Count 20/May/2010 Plants /acre	Stand Count 26/May/2010 Plants /acre	Stand Count 31/May/2010 Plants /acre	ADULT 26/May/2010 thrips /5 plant	ADULT 31/May/2010 thrips /5 plant
Trt No.	Treatment Name	Rate	Rate Unit					
1	AESCGA BAYTAN 30	10.4	g ai/100 kg	10250 a	24250 a	24750 a	0 a	0 a
	EXP81087A	15.5	g ai/100 kg					
2	AEFDQM F106464 00 FSB	250	g ai/100 kg	13250 a	25500 a	26250 a	1 a	0 a
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	AEFDQM F106464 00 FSB	250	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
3	SP102000023359	497	g ai/100 kg	9750 a	27000 a	27000 a	0 a	0 a
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
4	AEFDQM_F106464 00 FSB	250	g ai/100 kg	15500 a	27500 a	25750 a	0 a	0 a
	SP102000023359	497	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
5	BCADDM_07012301	0.75	g ai/100 kg	19250 a	26250 a	27750 a	0 a	0 a
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
6	AEFDQM_F106464 00 FSB	250	g ai/100 kg	10000 a	27000 a	27000 a	0 a	1 a
	BCADDM_07012301	0.75	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
7	BCADDM_07012301	0.75	g ai/100 kg	16250 a	26500 a	28750 a	0 a	0 a
	SP102000023359	497	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
8	SP102000023359	497	g ai/100 kg	15000 a	27750 a	25000 a	0 a	1 a
	BCADDM_07012301	0.75	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
9	AEFDQM_F106464 00 FSB	250	g ai/100 kg	15250 a	25500 a	28000 a	0 a	1 a
	SP102000023359	497	g ai/100 kg					
	BCADDM_07012301	0.75	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
10	AEFDQM_F106464 00 FSB	500	g ai/100 kg	12000 a	25750 a	29750 a	0 a	0 a
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					

Part Rated Rating Date Rating Data Type Rating Unit				Stand Count 20/May/2010 Plants /acre	Stand Count 26/May/2010 Plants /acre	Stand Count 31/May/2010 Plants /acre	ADULT 26/May/2010 thrips /5 plant	ADULT 31/May/2010 thrips /5 plant
Trt No.	Treatment Name	Rate	Rate Unit					
11	BCORKA_AVICTA 500FS	0.15	mg ai/seed	10250 a	23500 a	28250 a	0 a	1 a
	BCSTON_02100602	0.34	mg ai/seed					
	BCADDM_07012301	0.75	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
12	SP102000023359	497	g ai/100 kg	12250 a	21250 a	27250 a	0 a	0 a
	BCADDM_07012301	0.75	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
LSD (P=.05)				10094.4	4754.9	5278.9	0.5	0.8
Standard Deviation				6991.0	3293.0	3656.0	0.3	0.6
CV				52.76	12.84	13.48	275.61	176.34
Grand Mean				13250.0	25645.84	27125.0	0.13	0.31
Bartlett's X2				7.237	7.529	23.815	0.101	2.955
P(Bartlett's X2)				0.78	0.755	0.014*	0.999	0.814
Replicate F				0.519	11.093	2.068	0.234	0.252
Replicate Prob(F)				0.6718	0.0001	0.1234	0.8720	0.8596
Treatment F				0.748	1.293	0.675	0.957	1.815
Treatment Prob(F)				0.6864	0.2715	0.7513	0.5017	0.0914

Part Rated Rating Date Rating Data Type Rating Unit				Damage 3/Jun/2010 damage 1-5	ADULT 9/Jun/2010 thrips /5 plant	LINT 8/Dec/2010 GIN TURNOUT PERCENT	LINT 8/Dec/2010 LBS/ACRE
Trt No.	Treatment Name	Rate	Rate Unit				
1	AESCGA BAYTAN 30	10.4	g ai/100 kg	4 a	0 a	0.22 e	1091.90 a
	EXP81087A	15.5	g ai/100 kg				
2	AEFDQM F106464 00 FSB	250	g ai/100 kg	2 b	1 a	0.24 c	1254.53 a
	AESCGA BAYTAN 30	10.4	g ai/100 kg				
	EXP81087A	15.5	g ai/100 kg				
	AEFDQM F106464 00 FSB	250	g ai/100 kg				
	AESCGA BAYTAN 30	10.4	g ai/100 kg				
	EXP81087A	15.5	g ai/100 kg				
3	SP102000023359	497	g ai/100 kg	3 b	1 a	0.23 d	1158.23 a
	AESCGA BAYTAN 30	10.4	g ai/100 kg				
	EXP81087A	15.5	g ai/100 kg				
	L1028-E	2.5	g ai/100 kg				
4	AEFDQM_F106464 00 FSB	250	g ai/100 kg	2 b	0 a	0.25 b	1357.95 a
	SP102000023359	497	g ai/100 kg				
	AESCGA BAYTAN 30	10.4	g ai/100 kg				
	EXP81087A	15.5	g ai/100 kg				
5	BCADDM_07012301	0.75	g ai/100 kg	1 b	1 a	0.23 d	1231.10 a
	AESCGA BAYTAN 30	10.4	g ai/100 kg				
	EXP81087A	15.5	g ai/100 kg				
	L1028-E	2.5	g ai/100 kg				
6	AEFDQM_F106464 00 FSB	250	g ai/100 kg	2 b	1 a	0.23 d	1215.92 a
	BCADDM_07012301	0.75	g ai/100 kg				
	AESCGA BAYTAN 30	10.4	g ai/100 kg				
	EXP81087A	15.5	g ai/100 kg				
	L1028-E	2.5	g ai/100 kg				
7	BCADDM_07012301	0.75	g ai/100 kg	2 b	0 a	0.23 d	1220.47 a
	SP102000023359	497	g ai/100 kg				
	AESCGA BAYTAN 30	10.4	g ai/100 kg				
	EXP81087A	15.5	g ai/100 kg				
	L1028-E	2.5	g ai/100 kg				
8	SP102000023359	497	g ai/100 kg	3 b	8 a	0.24 c	1251.36 a
	BCADDM_07012301	0.75	g ai/100 kg				
	AESCGA BAYTAN 30	10.4	g ai/100 kg				
	EXP81087A	15.5	g ai/100 kg				
	L1028-E	2.5	g ai/100 kg				
9	AEFDQM_F106464 00 FSB	250	g ai/100 kg	3 b	1 a	0.28 a	1305.24 a
	SP102000023359	497	g ai/100 kg				
	BCADDM_07012301	0.75	g ai/100 kg				
	AESCGA BAYTAN 30	10.4	g ai/100 kg				
	EXP81087A	15.5	g ai/100 kg				
	L1028-E	2.5	g ai/100 kg				
10	AEFDQM_F106464 00 FSB	500	g ai/100 kg	2 b	1 a	0.24 c	1251.36 a
	AESCGA BAYTAN 30	10.4	g ai/100 kg				
	EXP81087A	15.5	g ai/100 kg				
	L1028-E	2.5	g ai/100 kg				
11	BCORKA_AVICTA 500FS	0.15	mg ai/seed	2 b	1 a	0.25 b	1216.05 a
	BCSTON_02100602	0.34	mg ai/seed				
	BCADDM_07012301	0.75	g ai/100 kg				
	AESCGA BAYTAN 30	10.4	g ai/100 kg				
	EXP81087A	15.5	g ai/100 kg				
	L1028-E	2.5	g ai/100 kg				

Part Rated Rating Date Rating Data Type Rating Unit				Damage 3/Jun/2010 damage 1-5	ADULT P 9/Jun/2010 thrips /5 plant	LINT C 8/Dec/2010 GIN TURNOUT PERCENT	LINT C 8/Dec/2010 LBS/ACRE
Trt No.	Treatment Name	Rate	Rate Unit				
12	SP102000023359	497	g ai/100 kg	2 b	0 a	0.24 c	1216.51 a
	BCADDM_07012301	0.75	g ai/100 kg				
	AESCGA BAYTAN 30	10.4	g ai/100 kg				
	EXP81087A	15.5	g ai/100 kg				
	L1028-E	2.5	g ai/100 kg				
LSD (P=.05)				1.1	6.8	0.000	165.514
Standard Deviation				0.8	4.7	0.000	114.629
CV				33.58	433.9	0.0	9.31
Grand Mean				2.27	1.08	0.24	1230.89
Bartlett's X2				5.445	98.654	0.0	11.445
P(Bartlett's X2)				0.606	0.001*	.	0.407
Replicate F				0.036	0.888	0.000	4.205
Replicate Prob(F)				0.9907	0.4577	1.0000	0.0126
Treatment F				2.850	0.871	0.000	1.340
Treatment Prob(F)				0.0098	0.5759	1.0000	0.2470

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.

EVALUATION OF FOLIAR FUNGICIDES FOR ENHANCEMENT OF COTTON GROWTH, DEVELOPMENT

In cooperation with Shane Osborne and Larry Bull

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 40 FT
Replications: 4 **Study Design:** Randomized Complete Block

Application Description

	A	B
Application Date:	20/Jul/2010	3/Aug/2010
Time of Day:	AM	AM
Application Method:	SPRAY	SPRAY
Application Timing:	PREBLO	PREBLO
Application Placement:	FOLIAR	FOLIAR
Applied By:	Larry Bull	Nathan Helm
Air Temperature, Unit:	81 F	85 F
% Relative Humidity:	48	39
Wind Velocity, Unit:	9 MPH	2 MPH
Dew Presence (Y/N):	n	n
Water Hardness:	none	none
Soil Temperature, Unit:	71 F	77 F
Soil Moisture:	EXCESSIVE	ADEQUATE
% Cloud Cover:	50	0

Crop Code				GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
BBCH Scale				BCOT	BCOT	BCOT	BCOT	BCOT	BCOT	BCOT
Part Rated				PLAEME C	PLAEME C	PLAEME C	PLAEME C	PLAEME C	PLAEME C	PLAEME C
Rating Date				20/Jul/2010	21/Jul/2010	26/Jul/2010	17/Aug/2010		21/Jul/2010	3/Aug/2010
Rating Data Type				STND CNT	DIS SEVERIT	DIS SEVERIT	DIS SEVERIT	DIS SEVERIT	HEIGHT	HEIGHT
Rating Unit				#/13.7FT	0 - 10	0 - 10	0 - 10	0 - 10	CM	CM
Number of Subsamples				1	1	1	1	1	5	5
Days After Last Applic.				0	1	6	14		1	0
Trt-Eval Interval				0 DA-A	1 DA-A	6 DA-A			1 DA-A	
Trt No.	Treatment Name	Rate	Rate Unit							
1	Untreated			42 a	0 a	0 a	0 a	0 a	80 a	95 a
2	Quadris	12	fl oz/a	40 a	0 a	0 a	0 a	0 a	82 a	94 a
3	Quadris	6	fl oz/a	40 a	0 a	0 a	0 a	0 a	80 a	88 a
	Quadris	6	fl oz/a							
4	Quadris	6	fl oz/a	43 a	0 a	0 a	0 a	0 a	80 a	91 a
	Quadris	12	fl oz/a							
5	Headline	12	fl oz/a	41 a	0 a	0 a	0 a	0 a	80 a	94 a
6	Headline	6	fl oz/a	41 a	0 a	0 a	0 a	0 a	78 a	93 a
	Headline	6	fl oz/a							
7	Headline	6	fl oz/a	42 a	0 a	0 a	0 a	0 a	80 a	93 a
	Headline	12	fl oz/a							
8	Untreated			38 a	0 a	0 a	0 a	0 a	82 a	95 a
LSD (P=.05)				4.0	0.0	0.0	0.0	0.0	3.4	7.7
Standard Deviation				2.7	0.0	0.0	0.0	0.0	2.3	5.2
CV				6.65	0.0	0.0	0.0	0.0	2.87	5.63
Grand Mean				40.88	0.0	0.0	0.0	0.0	80.41	92.77
Bartlett's X2				5.454	0.0	0.0	0.0	0.0	5.511	28.626
P(Bartlett's X2)				0.605	.	.	.	.	0.598	0.001*
Replicate F				2.123	0.000	0.000	0.000	0.000	0.716	0.167
Replicate Prob(F)				0.1278	1.0000	1.0000	1.0000	1.0000	0.5535	0.9173
Treatment F				1.113	0.000	0.000	0.000	0.000	1.284	0.780
Treatment Prob(F)				0.3915	1.0000	1.0000	1.0000	1.0000	0.3056	0.6113

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.

Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
BBCH Scale	BCOT	BCOT	BCOT	BCOT	BCOT	BCOT	BCOT
Part Rated	PLAEME C	PLAEME C	PLAEME C	PLAEME C	PLAEME C	PLAEME C	PLAEME C
Rating Date	17/Aug/2010	30/Aug/2010	20/Jul/2010	3/Aug/2010	17/Aug/2010	30/Aug/2010	20/Jul/2010
Rating Data Type	HEIGHT	HEIGHT	NODES	NODES	NODES	NODES	INTNDE LNGH
Rating Unit	CM	CM	NUMBER	NUMBER	NUMBER	NUMBER	CM
Number of Subsamples	5	5	5	5	5	5	5
Days After Last Applic.	14	27	0	0	14	27	0
Trt-Eval Interval			0 DA-A				0 DA-A
Trt Treatment Rate No. Name Rate Unit							
1 Untreated	101 a	102 a	16 a	19 a	20 a	21 a	8 a
2 Quadris 12 fl oz/a	100 a	108 a	16 a	17 a	20 a	20 a	8 a
3 Quadris 6 fl oz/a Quadris 6 fl oz/a	99 a	103 a	15 a	17 a	20 a	21 a	8 a
4 Quadris 6 fl oz/a Quadris 12 fl oz/a	99 a	101 a	16 a	18 a	20 a	20 a	8 a
5 Headline 12 fl oz/a	102 a	103 a	16 a	18 a	20 a	21 a	8 a
6 Headline 6 fl oz/a Headline 6 fl oz/a	98 a	98 a	16 a	17 a	19 a	21 a	7 a
7 Headline 6 fl oz/a Headline 12 fl oz/a	106 a	100 a	15 a	18 a	20 a	21 a	8 a
8 Untreated	99 a	104 a	15 a	17 a	20 a	21 a	7 a
LSD (P=.05)	9.7	10.6	0.7	1.9	2.2	1.9	0.4
Standard Deviation	6.6	7.2	0.4	1.3	1.5	1.3	0.3
CV	6.58	7.04	2.87	7.13	7.56	6.37	3.62
Grand Mean	100.62	102.2	15.62	17.71	19.97	20.71	7.61
Bartlett's X2	20.406	5.263	4.25	9.701	7.979	2.905	14.093
P(Bartlett's X2)	0.005*	0.628	0.751	0.206	0.334	0.894	0.05*
Replicate F	2.748	1.752	2.349	3.764	3.713	4.934	0.294
Replicate Prob(F)	0.0684	0.1871	0.1016	0.0263	0.0275	0.0095	0.8296
Treatment F	0.685	0.735	1.821	1.315	0.251	0.548	0.645
Treatment Prob(F)	0.6836	0.6448	0.1358	0.2918	0.9662	0.7885	0.7145

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.

Crop Code				GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
BBCH Scale				BCOT	BCOT	BCOT	BCOT	BCOT	BCOT
Part Rated				PLAEME C	PLAEME C	PLAEME C	PLAEME C	PLAEME C	PLAEME C
Rating Date				3/Aug/2010	17/Aug/2010	30/Aug/2010	20/Jul/2010	3/Aug/2010	17/Aug/2010
Rating Data Type				INTNDE LNGH	INTNDE LNGH	INTNDE LNGH	NAWF	NAWF	NAWF
Rating Unit				CM	CM	CM	NUMBER	NUMBER	NUMBER
Number of Subsamples				5	5	5	5	5	5
Days After Last Applic.				0	14	27	0	0	14
Trt-Eval Interval							0 DA-A		
Trt No.	Treatment Name	Rate	Rate Unit						
1	Untreated			6 a	5 a	5 a	7 a	4 a	0 a
2	Quadris	12	fl oz/a	6 a	4 a	4 a	7 a	4 a	0 a
3	Quadris	6	fl oz/a	5 a	4 a	4 a	7 a	4 a	1 a
	Quadris	6	fl oz/a						
4	Quadris	6	fl oz/a	6 a	4 a	4 a	7 a	4 a	0 a
	Quadris	12	fl oz/a						
5	Headline	12	fl oz/a	6 a	4 a	5 a	7 a	4 a	0 a
6	Headline	6	fl oz/a	6 a	4 a	4 a	7 a	4 a	0 a
	Headline	6	fl oz/a						
7	Headline	6	fl oz/a	6 a	4 a	4 a	7 a	4 a	0 a
	Headline	12	fl oz/a						
8	Untreated			6 a	4 a	4 a	7 a	4 a	0 a
LSD (P=.05)				1.0	1.2	1.1	0.6	0.8	0.4
Standard Deviation				0.7	0.8	0.7	0.4	0.5	0.2
CV				12.25	20.22	17.33	6.33	13.4	86.96
Grand Mean				5.75	4.13	4.26	6.97	4.0	0.28
Bartlett's X2				20.223	5.395	5.074	9.277	14.869	9.924
P(Bartlett's X2)				0.005*	0.612	0.651	0.233	0.038*	0.128
Replicate F				0.101	16.878	10.341	0.556	5.445	8.658
Replicate Prob(F)				0.9588	0.0001	0.0002	0.6498	0.0063	0.0006
Treatment F				0.673	0.590	1.143	1.292	0.358	1.287
Treatment Prob(F)				0.6923	0.7567	0.3749	0.3019	0.9163	0.3043

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.

Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
BBCH Scale	BCOT	BCOT	BCOT	BCOT	BCOT	BCOT	BCOT
Part Rated	PLAEME C	SEECOT C	SEECOT C	LINT C	LINT C	LINT C	LINT C
Rating Date	30/Aug/2010	19/Nov/2010	19/Nov/2010	1/Dec/2010	1/Dec/2010		
Rating Data Type	NAWF	LBS/PLOT	LBS/ACRE	GIN TURNOUT	LBS/ACRE	MIC	LENGTH
Rating Unit	NUMBER			PERCENT			
Number of Subsamples	5	1	1	1	1	1	1
Days After Last Applic.	27	108	108	120	120		
Trt-Eval Interval							
Trt Treatment Rate No. Name Rate Unit							
1 Untreated	0 a	34 a	5525.0 a	0 a	1406 a	5 a	1 a
2 Quadris 12 fl oz/a	0 a	33 a	5369.9 a	0 a	1385 a	5 a	1 a
3 Quadris 6 fl oz/a Quadris 6 fl oz/a	0 a	33 a	5316.8 a	0 a	1354 a	5 a	1 a
4 Quadris 6 fl oz/a Quadris 12 fl oz/a	0 a	33 a	5324.9 a	0 a	1348 a	5 a	1 a
5 Headline 12 fl oz/a	0 a	32 a	5226.9 a	0 a	1316 a	5 a	1 a
6 Headline 6 fl oz/a Headline 6 fl oz/a	0 a	32 a	5304.5 a	0 a	1389 a	5 a	1 a
7 Headline 6 fl oz/a Headline 12 fl oz/a	0 a	34 a	5565.9 a	0 a	1436 a	5 a	1 a
8 Untreated	0 a	32 a	5251.4 a	0 a	1348 a	5 a	1 a
LSD (P=.05)	0.1	4.2	690.08	0.0	183.5	0.2	0.0
Standard Deviation	0.1	2.9	469.20	0.0	124.7	0.1	0.0
CV	165.62	8.75	8.75	3.49	9.09	3.12	1.64
Grand Mean	0.03	32.82	5360.67	0.26	1372.78	4.64	1.24
Bartlett's X2	0.0	3.947	3.947	7.747	6.134	5.707	3.413
P(Bartlett's X2)	1.00	0.786	0.786	0.355	0.524	0.574	0.844
Replicate F	11.667	8.755	8.754	0.237	7.196	0.692	0.610
Replicate Prob(F)	0.0001	0.0006	0.0006	0.8696	0.0017	0.5672	0.6157
Treatment F	1.000	0.274	0.274	0.573	0.384	0.373	0.382
Treatment Prob(F)	0.4586	0.9575	0.9575	0.7699	0.9016	0.9076	0.9026

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.

Crop Code					GOSHI	GOSHI
BBCH Scale					BCOT	BCOT
Part Rated					LINT C	LINT C
Rating Date						
Rating Data Type					STRENGTH	UNIFORMITY
Rating Unit						
Number of Subsamples					1	1
Trt No.	Treatment Name	Rate	Rate Unit			
1	Untreated				35 a	84 a
2	Quadris	12	fl oz/a		34 a	83 a
3	Quadris	6	fl oz/a		35 a	84 a
	Quadris	6	fl oz/a			
4	Quadris	6	fl oz/a		35 a	83 a
	Quadris	12	fl oz/a			
5	Headline	12	fl oz/a		34 a	83 a
6	Headline	6	fl oz/a		34 a	84 a
	Headline	6	fl oz/a			
7	Headline	6	fl oz/a		35 a	84 a
	Headline	12	fl oz/a			
8	Untreated				34 a	85 a
LSD (P=.05)					1.1	1.2
Standard Deviation					0.7	0.8
CV					2.11	0.96
Grand Mean					34.34	83.86
Bartlett's X2					12.501	9.759
P(Bartlett's X2)					0.085	0.203
Replicate F					1.200	0.497
Replicate Prob(F)					0.3339	0.6886
Treatment F					1.920	1.592
Treatment Prob(F)					0.1170	0.1923

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.

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Altus Grain Sorgum

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BAS 662 00 F/SORGHUM/SEED TREATMENT/COLD TOLERANCE

Objectives:
Efficacy of F500-containing seed treatments on reduction of cold sensitivity in sorghum.

Crop Description

Crop 1: SORVU SORGHUM, GRAIN
Planting Date: 3/May/2010
Planting Method: BEDDED
Rate, Unit: 7 S/ROW-FT
Spacing Within Row, Unit: 40 IN
Seed Bed: CLODDY
Soil Temperature, Unit: 54 F
Soil Moisture: NORMAL

Site and Design

Plot Width, Unit: 10 FT
Plot Length, Unit: 25 FT
Replications: 4
Study Design: Randomized Complete Block

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	4/May/2010	Bicep Mangum II				1.0	QT/A

Description Rating Date Rating Data Type Rating Unit				Plants acre 11/May/2010 COUPLA PLANT	Plants acre 17/May/2010 COUPLA PLANT	Plants acre 25/May/2010 COUPLA PLANT	Head emergence 1/Jul/2010 COUPLA Plant	Yield 27/Jul/2010 WET /5 foot	Yield 9/Aug/2010 WET /5 foot
Trt No.	Treatment Name	Rate	Rate Unit						
1	CHECK - WATER			23472 a	48750 a	61389 a	0 a	1079 a	945 a
2	BAS 66200F	125.0	ml/100 kg	26722 a	49833 a	69694 a	0 a	1099 a	883 a
3	MAXIM XL	21.6	ml/100 kg	19861 a	46222 a	69694 a	0 a	1016 a	1018 a
	APRON XL	15.3	ml/100 kg						
4	MAXIM XL	21.6	ml/100 kg	20583 a	46583 a	69694 a	0 a	945 a	837 a
	APRON XL	15.3	ml/100 kg						
	STAMINA	50.0	ml/100 kg						
LSD (P=.05)				13948.8	10788.5	17238.6	0.0	264.4	185.6
Standard Deviation				8720.8	6745.0	10777.7	0.0	165.3	116.0
CV				38.49	14.1	15.94	0.0	15.98	12.6
Grand Mean				22659.72	47847.22	67618.06	0.0	1034.38	920.63
Bartlett's X2				2.174	0.475	1.736	0.0	6.217	1.874
P(Bartlett's X2)				0.537	0.924	0.629	.	0.102	0.599
Replicate F				2.535	4.590	1.965	0.000	0.968	0.767
Replicate Prob(F)				0.1223	0.0326	0.1899	1.0000	0.4493	0.5408
Treatment F				0.514	0.264	0.594	0.000	0.708	1.841
Treatment Prob(F)				0.6829	0.8499	0.6346	1.0000	0.5712	0.2101

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.

Description Rating Date Rating Data Type Rating Unit				Yield 27/Jul/2010 Dry heads /5 foot	Yield 27/Jul/2010 Grain /5 foot	Yield 9/Aug/2010 Dry heads /5 foot	Yield 9/Aug/2010 Grain /5 foot	Yield 9/Aug/2010 YIELD BU
Trt No.	Treatment Name	Rate	Rate Unit	7	8	9	10	11
1	CHECK - WATER			444 a	209 a	805 a	514 a	51.4 a
2	BAS 66200F	125.0	ml/100 kg	420 a	216 a	663 a	437 a	43.7 a
3	MAXIM XL	21.6	ml/100 kg	432 a	251 a	744 a	512 a	51.2 a
	APRON XL	15.3	ml/100 kg					
4	MAXIM XL	21.6	ml/100 kg	441 a	219 a	677 a	458 a	45.8 a
	APRON XL	15.3	ml/100 kg					
	STAMINA	50.0	ml/100 kg					
LSD (P=.05)				120.4	39.5	157.5	132.8	13.28
Standard Deviation				75.3	24.7	98.5	83.0	8.31
CV				17.33	11.05	13.64	17.29	17.29
Grand Mean				434.19	223.69	722.06	480.0	48.02
Bartlett's X2				0.531	4.339	1.236	0.894	0.894
P(Bartlett's X2)				0.912	0.227	0.744	0.827	0.827
Replicate F				0.603	5.303	0.903	0.538	0.538
Replicate Prob(F)				0.6290	0.0222	0.4770	0.6682	0.6683
Treatment F				0.080	2.233	1.771	0.866	0.866
Treatment Prob(F)				0.9693	0.1536	0.2225	0.4934	0.4934

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.

PONCHO SEED TREATMENT TRIAL ALTUS

Objectives:
Efficacy of Poncho on Grain Sorghum.

Crop Description

Crop 1: SORVU SORGHUM, GRAIN
Planting Date: 3/May/2010
Planting Method: BEDDED
Rate, Unit: 7 S/ROW-FT
Spacing Within Row, Unit: 40 IN
Seed Bed: CLODDY
Soil Temperature, Unit: 54 F
Soil Moisture: NORMAL

Site and Design

Plot Width, Unit: 10 FT
Plot Length, Unit: 25 FT
Replications: 4
Study Design: Randomized Complete Block

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	4/May/2010	Bicep Mangum II				1.0	QT/A

Description Rating Date Rating Data Type Rating Unit				Plants acre 11/May/2010 COUPLA PLANT	Plants acre 17/May/2010 COUPLA PLANT	Plants acre 25/May/2010 COUPLA PLANT	Plants acre 31/May/2010 COUPLA PLANT	Head emergence 1/Jul/2010 % Head Plant
Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4	5
1	VORTEX FL	0.08555		28889 a	57056 a	62833 a	62833 a	40 a
	ALLEGIANCE FL	0.3617						
	PONCHO 600	5.113						
	PRECISE S FINISHER 1009	1.994						
	PRO-IZED RED COLORANT	0.3006						
	TALC	1						
2	VORTEX FL	0.08555		19500 a	55611 a	73667 a	73667 a	56 a
	ALLEGIANCE FL	0.375						
	PONCHO 600	5.113						
	AE 0001789	1.6						
	PRECISE S FINISHER 1009	1.994						
	PRO-IZED RED COLORANT	0.3006						
	TALC	1						
3	VORTEX FL	0.08555		35028 a	56694 a	69694 a	69694 a	60 a
	ALLEGIANCE FL	0.375						
	PRECISE S FINISHER 1009	1.994						
	PRO-IZED RED COLORANT	0.3006						
	TALC	1						
	AE 0001789	1.6						
	PONCHO VOTIVO	6.1						
4	MAXIM	0.0799		28167 a	57056 a	63556 a	63556 a	36 a
	APRON XL	0.32						
	CRUISER 5FS	5.113						
	CONCEP III	0.64						
	CF NEUTRAL	0.997						
	PRO-IZED RED COLORANT	0.3006						
	TALC	1						
LSD (P=.05)				21898.5	9211.3	11744.3	11744.4	52.1
Standard Deviation				13691.0	5759.0	7342.6	7342.6	32.5
CV				49.08	10.17	10.89	10.89	67.62
Grand Mean				27895.84	56604.17	67437.51	67437.51	48.13
Bartlett's X2				8.379	0.745	3.473	3.473	0.192
P(Bartlett's X2)				0.039*	0.863	0.324	0.324	0.979
Replicate F				0.765	3.411	1.821	1.821	0.836
Replicate Prob(F)				0.5417	0.0665	0.2134	0.2134	0.5073
Treatment F				0.871	0.056	1.983	1.982	0.521
Treatment Prob(F)				0.4913	0.9813	0.1872	0.1872	0.6782

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.

Description Rating Date Rating Data Type Rating Unit				Yield 27/Jul/2010 WET /5 foot	Yield 9/Aug/2010 WET /5 foot	Yield 27/Jul/2010 Dry heads /5 foot	Yield 27/Jul/2010 Grain /5 foot	Yield 9/Aug/2010 Dry heads /5 foot	Yield 9/Aug/2010 Grain /5 foot
Trt No.	Treatment Name	Rate	Rate Unit						
1	VORTEX FL	0.08555		950 a	628 a	466 a	331 a	591 a	354 b
	ALLEGIANCE FL	0.3617							
	PONCHO 600	5.113							
	PRECISE S FINISHER 1009	1.994							
	PRO-IZED RED COLORANT	0.3006							
	TALC	1							
2	VORTEX FL	0.08555		820 a	715 a	459 a	332 a	621 a	416 ab
	ALLEGIANCE FL	0.375							
	PONCHO 600	5.113							
	AE 0001789	1.6							
	PRECISE S FINISHER 1009	1.994							
	PRO-IZED RED COLORANT	0.3006							
	TALC	1							
3	VORTEX FL	0.08555		977 a	871 a	551 a	357 a	810 a	568 a
	ALLEGIANCE FL	0.375							
	PRECISE S FINISHER 1009	1.994							
	PRO-IZED RED COLORANT	0.3006							
	TALC	1							
	AE 0001789	1.6							
	PONCHO VOTIVO	6.1							
4	MAXIM	0.0799		1086 a	717 a	582 a	380 a	782 a	508 ab
	APRON XL	0.32							
	CRUISER 5FS	5.113							
	CONCEP III	0.64							
	CF NEUTRAL	0.997							
	PRO-IZED RED COLORANT	0.3006							
	TALC	1							
LSD (P=.05)				260.8	251.5	103.3	92.7	171.9	152.7
Standard Deviation				163.0	157.2	64.6	58.0	107.5	95.5
CV				17.02	21.46	12.56	16.56	15.33	20.69
Grand Mean				958.0	732.56	514.31	350.06	700.81	461.63
Bartlett's X2				2.643	2.873	5.432	7.458	0.477	2.044
P(Bartlett's X2)				0.45	0.412	0.143	0.059	0.924	0.563
Replicate F				0.538	0.638	1.177	0.883	0.468	1.387
Replicate Prob(F)				0.6682	0.6092	0.3716	0.4859	0.7118	0.3086
Treatment F				1.792	1.655	3.605	0.654	4.260	3.960
Treatment Prob(F)				0.2186	0.2450	0.0587	0.6002	0.0394	0.0471

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.

Description Rating Date Rating Data Type Rating Unit				Yield 9/Aug/2010 YIELD Bu/A	Yield 9/Aug/2010 YIELD LB/A
Trt No.	Treatment Name	Rate	Rate Unit		
1	VORTEX FL	0.08555		35.4 b	3326.6 a
	ALLEGIANCE FL	0.3617			
	PONCHO 600	5.113			
	PRECISE S FINISHER 1009	1.994			
	PRO-IZED RED COLORANT	0.3006			
	TALC	1			
2	VORTEX FL	0.08555		41.6 ab	3496.9 a
	ALLEGIANCE FL	0.375			
	PONCHO 600	5.113			
	AE 0001789	1.6			
	PRECISE S FINISHER 1009	1.994			
	PRO-IZED RED COLORANT	0.3006			
	TALC	1			
3	VORTEX FL	0.08555		56.9 a	4559.8 a
	ALLEGIANCE FL	0.375			
	PRECISE S FINISHER 1009	1.994			
	PRO-IZED RED COLORANT	0.3006			
	TALC	1			
	AE 0001789	1.6			
	PONCHO VOTIVO	6.1			
4	MAXIM	0.0799		50.8 ab	4402.1 a
	APRON XL	0.32			
	CRUISER 5FS	5.113			
	CONCEP III	0.64			
	CF NEUTRAL	0.997			
	PRO-IZED RED COLORANT	0.3006			
	TALC	1			
LSD (P=.05)				15.28	967.95
Standard Deviation				9.55	605.17
CV				20.69	15.33
Grand Mean				46.19	3946.33
Bartlett's X2				2.044	0.477
P(Bartlett's X2)				0.563	0.924
Replicate F				1.387	0.468
Replicate Prob(F)				0.3086	0.7118
Treatment F				3.960	4.260
Treatment Prob(F)				0.0471	0.0394

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.

NIPSIT INSIDE PACKAGE DEVELOPMENT STUDY FOR SORGHUM

Objectives:
Determine Nipsit INSIDE performance with potential development packages for sorghum. Assess seedling disease dieback and identification of pathogens inciting seedling dieback. Monitor insect populations and damage to determine field performance of Nipsit vs. competitive standards used in the sorghum market.

Crop Description

Crop 1: SORVU — SORGHUM, GRAIN
Planting Date: 3/May/2010
Planting Method: BEDDED
Rate, Unit: 7 S/ROW-FT
Spacing Within Row, Unit: 40 IN
Seed Bed: CLODDY
Soil Temperature, Unit: 54 F
Soil Moisture: NORMAL

Site and Design

Plot Width, Unit: 10 FT
Plot Length, Unit: 25 FT
Replications: 4
Study Design: Randomized Complete Block

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	4/May/2010	Bicep Mangum II				1.0	QT/A

Description Rating Date Rating Data Type Rating Unit				Plants acre 11/May/2010 COUPLA PLANT	Plants acre 17/May/2010 COUPLA PLANT	Plants acre 25/May/2010 COUPLA PLANT	Plants acre 31/May/2010 COUPLA PLANT	Plants acre 31/May/2010 vigor PLANT
Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4	5
1	UNTREATED CHECK	0	fl oz/cwt	39000 a	49833 ab	66833 a	66833 a	9 a
2	MAXIM 4FS	0.08	fl oz/cwt	39361 a	51278 ab	57444 a	57444 a	9 a
	APRON XL	0.32	fl oz/cwt					
	CONCEP III	18.1	g ai/cwt					
3	MAXIM 4FS	0.08	fl oz/cwt	40806 a	50194 ab	64639 a	64639 a	8 a
	APRON XL	0.32	fl oz/cwt					
	CONCEP III	18.1	fl oz/cwt					
	CRUISER	5.1	fl oz/cwt					
4	VORTEX	0.086	fl oz/cwt	41889 a	53444 ab	63194 a	63194 a	8 a
	ALLEGIANCE-FL	0.4	fl oz/cwt					
	CONCEP III	18.1	g ai/cwt					
	PONCHO 600	5.1	fl oz/cwt					
5	MAXIM 4FS	0.08	fl oz/cwt	43694 a	45500 b	66444 a	66444 a	8 a
	APRON XL	0.32	fl oz/cwt					
	CONCEP III	18.1	fl oz/cwt					
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt					
6	V-10260	0.7	fl oz/cwt	42611 a	50917 ab	55972 a	55972 a	8 a
	CONCEP III	18.1	g ai/cwt					
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt					
7	V-10230	0.7	fl oz/cwt	45861 a	57417 a	66083 a	66083 a	9 a
	CONCEP III	18.1	g ai/cwt					
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt					
8	V-10321	0.81	fl oz/cwt	41167 a	58139 a	63194 a	63194 a	8 a
	CONCEP III	18.1	g ai/cwt					
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt					
9	V-10320	1.15	fl oz/cwt	40083 a	56333 ab	67889 a	67889 a	9 a
	CONCEP III	18.1	g ai/cwt					
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt					
10	V-10240	0.8	fl oz/cwt	46222 a	56333 ab	61750 a	61750 a	8 a
	CONCEP III	18.1	g ai/cwt					
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt					
11	V-10322	0.91	fl oz/cwt	42250 a	55972 ab	67528 a	67528 a	9 a
	CONCEP III	18.1	g ai/cwt					
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt					
		5.1	fl oz/cwt					
LSD (P=.05)				8745.7	6674.7	14609.2	14609.2	1.9
Standard Deviation				6057.0	4622.6	10117.8	10117.8	1.3
CV				14.39	8.69	15.88	15.88	15.35
Grand Mean				42085.86	53214.67	63724.76	63724.76	8.41
Bartlett's X2				12.903	16.033	20.322	20.322	4.675
P(Bartlett's X2)				0.229	0.099	0.026*	0.026*	0.862
Replicate F				4.265	0.960	0.348	0.348	1.110
Replicate Prob(F)				0.0127	0.4244	0.7906	0.7906	0.3604
Treatment F				0.629	2.959	0.622	0.622	0.308
Treatment Prob(F)				0.7769	0.0104	0.7829	0.7829	0.9731

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.

Description Rating Date Rating Data Type Rating Unit				Head emergence 1/Jul/2010 COUPLA Plant	Yield 27/Jul/2010 WET /5 foot	Yield 27/Jul/2010 Dry heads /5 foot	Yield 27/Jul/2010 Grain /5 foot	Yield 27/Jul/2010 YIELD BU	Yield 27/Jul/2010 YIELD LB
Trt No.	Treatment Name	Rate	Rate Unit						
1	UNTREATED CHECK	0	fl oz/cwt	9 a	1163 a	581 a	295 a	29.3 a	3273.1 a
2	MAXIM 4FS	0.08	fl oz/cwt	17 a	1114 a	536 a	302 a	30.0 a	3018.3 a
	APRON XL	0.32	fl oz/cwt						
	CONCEP III	18.1	g ai/cwt						
3	MAXIM 4FS	0.08	fl oz/cwt	3 a	1206 a	499 a	288 a	28.7 a	2809.9 a
	APRON XL	0.32	fl oz/cwt						
	CONCEP III	18.1	fl oz/cwt						
	CRUISER	5.1	fl oz/cwt						
4	VORTEX	0.086	fl oz/cwt	37 a	1175 a	578 a	341 a	33.9 a	3251.9 a
	ALLEGIANCE-FL	0.4	fl oz/cwt						
	CONCEP III	18.1	g ai/cwt						
	PONCHO 600	5.1	fl oz/cwt						
5	MAXIM 4FS	0.08	fl oz/cwt	7 a	1120 a	552 a	320 a	31.8 a	3106.9 a
	APRON XL	0.32	fl oz/cwt						
	CONCEP III	18.1	fl oz/cwt						
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt						
6	V-10260	0.7	fl oz/cwt	16 a	1072 a	510 a	307 a	30.6 a	2869.0 a
	CONCEP III	18.1	g ai/cwt						
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt						
7	V-10230	0.7	fl oz/cwt	4 a	1129 a	531 a	288 a	28.6 a	2988.7 a
	CONCEP III	18.1	g ai/cwt						
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt						
8	V-10321	0.81	fl oz/cwt	7 a	1107 a	562 a	291 a	28.9 a	3163.3 a
	CONCEP III	18.1	g ai/cwt						
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt						
9	V-10320	1.15	fl oz/cwt	16 a	1058 a	493 a	291 a	28.9 a	2777.5 a
	CONCEP III	18.1	g ai/cwt						
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt						
10	V-10240	0.8	fl oz/cwt	7 a	1116 a	550 a	291 a	29.0 a	3095.7 a
	CONCEP III	18.1	g ai/cwt						
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt						
11	V-10322	0.91	fl oz/cwt	3 a	1120 a	524 a	325 a	32.3 a	2949.3 a
	CONCEP III	18.1	g ai/cwt						
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt						
		5.1	fl oz/cwt						
LSD (P=.05)				25.8	286.7	151.3	93.5	9.30	852.18
Standard Deviation				17.9	198.6	104.8	64.8	6.44	590.19
CV				158.41	17.65	19.49	21.35	21.35	19.49
Grand Mean				11.3	1125.3	537.66	303.39	30.19	3027.6
Bartlett's X2				29.815	9.191	12.137	15.716	15.716	12.137
P(Bartlett's X2)				0.001*	0.514	0.276	0.108	0.108	0.276
Replicate F				1.295	0.115	0.547	0.735	0.735	0.547
Replicate Prob(F)				0.2942	0.9505	0.6541	0.5395	0.5394	0.6542
Treatment F				1.218	0.188	0.325	0.303	0.303	0.325
Treatment Prob(F)				0.3192	0.9959	0.9678	0.9747	0.9746	0.9678

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.

Column 10: TY1 = 0.09950134*[9]
Column 11: TY2 = 5.631077*[8]

Tipton Cotton

NOTE: NO YIELDS were taken on any trials for cotton due to heavy hail damage on September 8, 2010

Comparison of New Transgenic Varieties at Tipton

Objectives:
Compare new varieties of transgenic varieties.

CROP AND INSECT DESCRIPTION
Planting Date: 5/11/10
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 56 F **Soil Moisture:** NORMAL

Plot Width, Unit: 13.33 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: SEEDBED
Tillage Type: CONVENTIONAL-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

Previous: Crops	**Pesticides**	**Year**
1. Cotton		2009

Insect Code Part Rated Rating Data Type Rating Unit Rating Date			Stand Count Plants C Plants /acre 20/May/2010	Stand Count Plants C Plants /acre 26/May/2010	Stand Count Plants C Plants /acre 31/May/2010
Trt No.	Treatment Name	Rate Unit			
1	DP 1028 B2RF		14750 a	24186 a	18250 a
2	DP 1032 B2RF		12250 a	23430 a	18250 a
3	DP 1034 B2RF		14000 a	23808 a	18000 a
4	DP 1044 B2RF		15000 a	28721 a	20000 a
5	DP 1048 B2RF		14000 a	18140 a	14250 a
6	DP 1050B2RF		15000 a	31366 a	23000 a
7	BCSX 1010 B2F		12250 a	29477 a	21750 a
8	BCSX 1030 B2F		7250 a	26453 a	17250 a
9	BCSX 1040 B2F		28250 a	30610 a	16750 a
10	BCSX 1160 B2F		13500 a	36279 a	24750 a
11	BCSX 1180 B2F		4500 a	26076 a	19500 a
LSD (P=.05)			17931.6	15401.4	8011.0
Standard Deviation			12418.8	10666.5	5548.1
CV			90.62	39.3	28.82
Grand Mean			13704.55	27140.6	19250.0
Bartlett's X2			34.495	3.953	5.638
P(Bartlett's X2)			0.001*	0.949	0.845
Replicate F			0.893	1.394	0.615
Replicate Prob(F)			0.4563	0.2637	0.6106
Treatment F			0.900	0.835	1.170
Treatment Prob(F)			0.5452	0.5993	0.3484

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.

TEMIK / SOUTHERN CROPS / VARIOUS PESTS / LOCAL POSITIONING AT TIPTON

Objectives:
Seed Treatment evaluation.

CROP AND INSECT DESCRIPTION
Planting Date: 5/11/10
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 56 F **Soil Moisture:** NORMAL

Plot Width, Unit: 13.33 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: SEEDBED
Tillage Type: CONVENTIONAL-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

Previous:	Crops	Pesticides	Year
1.	Cotton		2009

Part Rated Rating Date Rating Data Type Rating Unit				Stand Count 20/May/2010 Plants /acre	Stand Count 26/May/2010 Plants /acre	Stand Count 31/May/2010 Plants /acre	ADULT 31/May/2010 Thrips / 5 plts	LEAF 9/Jun/2010 Thrips damage 1-5
Trt No.	Treatment Name	Rate	Rate Unit					
1	UNTREATED			29750 a	28750 a	29500 a	1 a	2 a
2	TEMIK 15G	3.5	lb/a	28500 a	28000 a	28500 a	1 a	2 a
3	TEMIK 15G	5.0	lb/a	27500 a	29750 a	31000 a	0 a	2 a
4	AERIS SEED APPLIED SYSTEM			30000 a	28500 a	29750 a	1 a	1 a
5	TEMIK 15G AERIS SEED APPLIED SYSTEM	5.0	lb/a	22000 a	28000 a	28000 a	1 a	1 a
LSD (P=.05)				7392.0	7591.4	7793.3	1.2	1.0
Standard Deviation				4797.6	4927.0	5058.0	0.7	0.7
CV				17.41	17.23	17.23	114.96	46.26
Grand Mean				27550.0	28600.0	29350.0	0.65	1.45
Bartlett's X2				4.504	2.17	1.123	3.398	0.914
P(Bartlett's X2)				0.342	0.705	0.891	0.494	0.633
Replicate F				0.095	4.301	3.150	1.522	1.000
Replicate Prob(F)				0.9614	0.0281	0.0647	0.2591	0.4262
Treatment F				1.849	0.085	0.213	0.582	2.333
Treatment Prob(F)				0.1845	0.9853	0.9262	0.6815	0.1148

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.

Part Rated				ADULT
Rating Date				9/Jun/2010
Rating Data Type				Thrips
Rating Unit				/5 plts
Trt No.	Treatment Name	Rate	Rate Unit	
1	UNTREATED			1 a
2	TEMIK 15G	3.5	lb/a	0 a
3	TEMIK 15G	5.0	lb/a	0 a
4	AERIS SEED APPLIED SYSTEM			0 a
5	TEMIK 15G AERIS SEED APPLIED SYSTEM	5.0	lb/a	1 a
LSD (P=.05)				0.9
Standard Deviation				0.6
CV				190.03
Grand Mean				0.3
Bartlett's X2				1.395
P(Bartlett's X2)				0.498
Replicate F				0.615
Replicate Prob(F)				0.6181
Treatment F				1.308
Treatment Prob(F)				0.3219

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

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PONCHO VOTiVO / COTTON / REPLICATED STRIPS FOR YIELD

Objectives:
Seed treatment evaluation.

CROP AND INSECT DESCRIPTION

Planting Date: 5/11/10
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 56 F **Soil Moisture:** NORMAL

Plot Width, Unit: 13.33 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: SEEDBED
Tillage Type: CONVENTIONAL-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

Previous:	Crops	Pesticides	Year
1.	Cotton		2009

Part Rated Rating Date Rating Data Type Rating Unit				Stand Count 20/May/2010 Plants /acre	Stand Count 26/May/2010 Plants /acre	Stand Count 31/May/2010 Plants /acre	ADULT 31/May/2010 Thrips /acre	Damage 3/Jun/2010 Damage 1-5
Trt No.	Treatment Name	Rate	Rate Unit					
1	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	13500 a	21541 a	16750 a	1 a	1 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
2	PONCHO VOTIVO	414	ml/100 kg	14250 a	23430 a	19500 a	0 a	2 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
3	PONCHO VOTIVO	828	ml/100 kg	16500 a	23808 a	18750 a	1 a	2 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
4	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	13250 a	23430 a	17750 a	1 a	1 a
	VOTIVO 24 OFS	828	ml/100 kg					
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
5	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	15250 a	22674 a	17500 a	0 a	2 a
	PONCHO VOTIVO	414	ml/100 kg					
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
6	PONCHO VOTIVO	828	ml/100 kg	13500 a	24564 a	21500 a	1 a	1 a
	GAUCHO 600FS	416.6	ml/100 kg					
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
7	TRILEX ADVANCED FS300	104.3	ml/100 kg	12500 a	32122 a	21000 a	1 a	1 a
	TALC	190	g/100 kg					
LSD (P=.05)				4864.7	8282.8	5032.8	1.0	1.1
Standard Deviation				3274.5	5575.3	3387.7	0.7	0.7
CV				23.21	22.75	17.86	136.28	49.89
Grand Mean				14107.14	24509.97	18964.29	0.5	1.43
Bartlett's X2				4.522	11.184	12.087	1.847	6.656
P(Bartlett's X2)				0.606	0.083	0.06	0.87	0.248
Replicate F				1.407	2.307	3.970	0.103	0.563
Replicate Prob(F)				0.2733	0.1111	0.0247	0.9575	0.6467
Treatment F				0.691	1.565	1.129	0.897	0.938
Treatment Prob(F)				0.6601	0.2144	0.3853	0.5178	0.4926

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.

Part Rated Rating Date Rating Data Type Rating Unit				Damage 9/Jun/2010 Damage 1-5	ADULT 9/Jun/2010 Thrips /5 plts
Trt No.	Treatment Name	Rate	Rate Unit		
1	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	1 a	0 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg		
	TALC	190	g/100 kg		
2	PONCHO VOTIVO	414	ml/100 kg	2 a	0 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg		
	TALC	190	g/100 kg		
3	PONCHO VOTIVO	828	ml/100 kg	2 a	1 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg		
	TALC	190	g/100 kg		
4	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	1 a	0 a
	VOTIVO 24 OFS	828	ml/100 kg		
	TRILEX ADVANCED FS300	104.3	ml/100 kg		
	TALC	190	g/100 kg		
5	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	1 a	0 a
	PONCHO VOTIVO	414	ml/100 kg		
	TRILEX ADVANCED FS300	104.3	ml/100 kg		
	TALC	190	g/100 kg		
6	PONCHO VOTIVO	828	ml/100 kg	2 a	0 a
	GAUCHO 600FS	416.6	ml/100 kg		
	TRILEX ADVANCED FS300	104.3	ml/100 kg		
	TALC	190	g/100 kg		
7	TRILEX ADVANCED FS300	104.3	ml/100 kg	1 a	0 a
	TALC	190	g/100 kg		
LSD (P=.05)				1.1	0.8
Standard Deviation				0.7	0.5
CV				50.97	206.25
Grand Mean				1.39	0.25
Bartlett's X2				1.907	2.336
P(Bartlett's X2)				0.592	0.674
Replicate F				0.449	1.209
Replicate Prob(F)				0.7212	0.3350
Treatment F				1.630	0.940
Treatment Prob(F)				0.1962	0.4909

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.

BIOLOGICAL ST ENHANCEMENT / COTTON / VIGOR & YIELD ENHANCEMENT

Objectives:
Seed treatment evaluation.

CROP AND INSECT DESCRIPTION

Planting Date: 5/11/10
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 56 F **Soil Moisture:** NORMAL

Plot Width, Unit: 13.33 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: SEEDBED
Tillage Type: CONVENTIONAL-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

Previous:	Crops	Pesticides	Year
1.	Cotton		2009

Part Rated Rating Date Rating Data Type Rating Unit				Stand Count 20/May/2010 Plants /acre	Stand Count 26/May/2010 Plants /acre	Stand Count 31/May/2010 Plants /acre	ADULT 31/May/2010 Thrips /5 plts	Damage 3/Jun/2010 Damage 1-5
Trt No.	Treatment Name	Rate	Rate Unit					
1	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	15500 a	26453 a	19000 a	2 a	1 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
2	PONCHO VOTIVO	828	mg ai/seed	14750 a	20407 a	21000 a	1 a	2 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
3	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	19250 a	25320 a	18750 a	1 a	2 a
	PONCHO VOTIVO	414	mg ai/seed					
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	TALC	190	g/100 kg					
4	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	13000 a	21163 a	18250 a	1 a	2 a
	PONCHO VOTIVO	828	mg ai/seed					
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	HEADS UP PLANT PROTECTANT	0.6	kg/100 kg					
	TALC	190	g/100 kg					
5	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	16000 a	27209 a	22000 a	0 a	2 a
	PONCHO VOTIVO	828	mg ai/seed					
	TRILEX ADVANCED FS300	104.3	ml/100 kg					
	KODIAK FL	32.6	kg/100 kg					
	TEST COMPOUND 2	32.6	kg/100 kg					
	TALC	190	g/100 kg					
6	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	11250 a	28721 a	20000 a	1 a	2 a
	PONCHO VOTIVO	828	mg ai/seed					
	KODIAK FL	32.6	kg/100 kg					
	TEST COMPOUND 2	32.6	kg/100 kg					
	TALC	190	g/100 kg					
7	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	17000 a	32122 a	23250 a	0 a	2 a
	PONCHO VOTIVO	828	mg ai/seed					
	HEADS UP PLANT PROTECTANT	0.6	kg/100 kg					
	TEST COMPOUND 2	32.6	kg/100 kg					
	TALC	190	g/100 kg					
LSD (P=.05)				7879.0	11755.4	7645.5	1.0	1.2
Standard Deviation				5303.5	7912.7	5146.3	0.7	0.8
CV				34.78	30.54	25.32	105.99	47.17
Grand Mean				15250.0	25913.63	20321.43	0.64	1.68
Bartlett's X2				6.269	8.901	8.512	2.398	2.074
P(Bartlett's X2)				0.394	0.179	0.203	0.792	0.839
Replicate F				0.462	1.926	0.221	0.103	0.513
Replicate Prob(F)				0.7124	0.1616	0.8807	0.9575	0.6787
Treatment F				0.972	1.082	0.515	2.128	0.494
Treatment Prob(F)				0.4718	0.4094	0.7892	0.1002	0.8047

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.

Part Rated Rating Date Rating Data Type Rating Unit				Damage 9/Jun/2010 Damage 1-5	ADULT 9/Jun/2010 Thrips /5 plts
Trt No.	Treatment Name	Rate	Rate Unit		
1	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	1 a	0 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg		
	TALC	190	g/100 kg		
2	PONCHO VOTIVO	828	mg ai/seed	2 a	0 a
	TRILEX ADVANCED FS300	104.3	ml/100 kg		
	TALC	190	g/100 kg		
3	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	1 a	0 a
	PONCHO VOTIVO	414	mg ai/seed		
	TRILEX ADVANCED FS300	104.3	ml/100 kg		
	TALC	190	g/100 kg		
4	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	2 a	0 a
	PONCHO VOTIVO	828	mg ai/seed		
	TRILEX ADVANCED FS300	104.3	ml/100 kg		
	HEADS UP PLANT PROTECTANT	0.6	kg/100 kg		
	TALC	190	g/100 kg		
5	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	1 a	0 a
	PONCHO VOTIVO	828	mg ai/seed		
	TRILEX ADVANCED FS300	104.3	ml/100 kg		
	KODIAK FL	32.6	kg/100 kg		
	TEST COMPOUND 2	32.6	kg/100 kg		
	TALC	190	g/100 kg		
6	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	3 a	0 a
	PONCHO VOTIVO	828	mg ai/seed		
	KODIAK FL	32.6	kg/100 kg		
	TEST COMPOUND 2	32.6	kg/100 kg		
	TALC	190	g/100 kg		
7	AERIS SEED APPLIED SYSTEM	0.75	mg ai/seed	1 a	0 a
	PONCHO VOTIVO	828	mg ai/seed		
	HEADS UP PLANT PROTECTANT	0.6	kg/100 kg		
	TEST COMPOUND 2	32.6	kg/100 kg		
	TALC	190	g/100 kg		
LSD (P=.05)				1.0	0.0
Standard Deviation				0.7	0.0
CV				45.73	0.0
Grand Mean				1.46	0.0
Bartlett's X2				1.496	0.0
P(Bartlett's X2)				0.683	.
Replicate F				0.504	0.000
Replicate Prob(F)				0.6841	1.0000
Treatment F				3.053	0.000
Treatment Prob(F)				0.0306	1.0000

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.

AERIS-VOTiVO / COTTON / INSECT and NEMATODE

Objectives:
Seed treatment evaluation.

CROP AND INSECT DESCRIPTION
Planting Date: 5/11/10
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 56 F **Soil Moisture:** NORMAL

Plot Width, Unit: 13.33 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: SEEDBED
Tillage Type: CONVENTIONAL-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

Previous:	Crops	Pesticides	Year
1.	Cotton		2009

Part Rated Rating Date Rating Data Type Rating Unit				Stand Count 20/May/2010 Plants /acre	Stand Count 26/May/2010 Plants /acre	Stand Count 31/May/2010 Plants /acre	ADULT 31/May/2010 Thrips /5 plts	DAMAGE 3/Jun/2010 Damage 1-5
Trt No.	Treatment Name	Rate	Rate Unit					
1	AESCGA BAYTAN 30	10.4	g ai/100 kg	24250 a	46105 a	31500 a	1 a	3 a
	EXP81087A	15.5	g ai/100 kg					
2	AEFDQM F106464 00 FSB	250	g ai/100 kg	25750 a	39680 a	27000 a	1 a	1 b
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	AEFDQM F106464 00 FSB	250	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
3	SP102000023359	497	g ai/100 kg	24500 a	45349 a	28500 a	1 a	1 b
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
4	AEFDQM_F106464 00 FSB	250	g ai/100 kg	24250 a	34767 a	24000 a	1 a	2 b
	SP102000023359	497	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
5	BCADDM_07012301	0.75	g ai/100 kg	17500 a	41948 a	27750 a	1 a	1 b
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
6	AEFDQM_F106464 00 FSB	250	g ai/100 kg	20250 a	35523 a	24750 a	0 a	1 b
	BCADDM_07012301	0.75	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
7	BCADDM_07012301	0.75	g ai/100 kg	13750 a	30233 a	23750 a	0 a	1 b
	SP102000023359	497	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
8	SP102000023359	497	g ai/100 kg	22000 a	30610 a	22500 a	1 a	1 b
	BCADDM_07012301	0.75	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
9	AEFDQM_F106464 00 FSB	250	g ai/100 kg	20000 a	35145 a	25250 a	1 a	2 b
	SP102000023359	497	g ai/100 kg					
	BCADDM_07012301	0.75	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
10	AEFDQM_F106464 00 FSB	500	g ai/100 kg	20750 a	30233 a	22750 a	1 a	1 b
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
11	BCORKA_AVICTA 500FS	0.15	mg ai/seed	24250 a	26831 a	19500 a	2 a	1 b
	BCSTON_02100602	0.34	mg ai/seed					
	BCADDM_07012301	0.75	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					

Part Rated Rating Date Rating Data Type Rating Unit				Stand Count 20/May/2010 Plants /acre	Stand Count 26/May/2010 Plants /acre	Stand Count 31/May/2010 Plants /acre	ADULT 31/May/2010 Thrips /5 plts	Damage 3/Jun/2010 Damage 1-5
Trt No.	Treatment Name	Rate	Rate Unit					
12	SP102000023359	497	g ai/100 kg	18250 a	37413 a	27000 a	1 a	1 b
	BCADDM_07012301	0.75	g ai/100 kg					
	AESCGA BAYTAN 30	10.4	g ai/100 kg					
	EXP81087A	15.5	g ai/100 kg					
	L1028-E	2.5	g ai/100 kg					
LSD (P=.05)				12964.6	15533.2	9332.3	1.1	0.7
Standard Deviation				8978.8	10757.7	6463.2	0.7	0.5
CV				42.17	29.76	25.49	95.42	34.2
Grand Mean				21291.67	36153.1	25354.17	0.77	1.4
Bartlett's X2				6.153	10.265	8.083	3.891	2.686
P(Bartlett's X2)				0.863	0.507	0.706	0.973	0.912
Replicate F				0.155	2.509	2.515	1.168	1.066
Replicate Prob(F)				0.9255	0.0759	0.0753	0.3367	0.3766
Treatment F				0.634	1.327	0.982	1.131	5.277
Treatment Prob(F)				0.7871	0.2539	0.4815	0.3702	0.0001

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.

Part Rated Rating Date Rating Data Type Rating Unit				Damage 9/Jun/2010 Damage 1-5	ADULT 9/Jun/2010 Thrips /5 plts
Trt No.	Treatment Name	Rate	Rate Unit		
1	AESCGA BAYTAN 30	10.4	g ai/100 kg	3 a	0 a
	EXP81087A	15.5	g ai/100 kg		
2	AEFDQM F106464 00 FSB	250	g ai/100 kg	1 b	0 a
	AESCGA BAYTAN 30	10.4	g ai/100 kg		
	EXP81087A	15.5	g ai/100 kg		
	AEFDQM F106464 00 FSB	250	g ai/100 kg		
	AESCGA BAYTAN 30	10.4	g ai/100 kg		
	EXP81087A	15.5	g ai/100 kg		
3	SP102000023359	497	g ai/100 kg	1 b	0 a
	AESCGA BAYTAN 30	10.4	g ai/100 kg		
	EXP81087A	15.5	g ai/100 kg		
	L1028-E	2.5	g ai/100 kg		
4	AEFDQM_F106464 00 FSB	250	g ai/100 kg	1 b	0 a
	SP102000023359	497	g ai/100 kg		
	AESCGA BAYTAN 30	10.4	g ai/100 kg		
	EXP81087A	15.5	g ai/100 kg		
5	BCADDM_07012301	0.75	g ai/100 kg	1 b	1 a
	AESCGA BAYTAN 30	10.4	g ai/100 kg		
	EXP81087A	15.5	g ai/100 kg		
	L1028-E	2.5	g ai/100 kg		
6	AEFDQM_F106464 00 FSB	250	g ai/100 kg	2 b	0 a
	BCADDM_07012301	0.75	g ai/100 kg		
	AESCGA BAYTAN 30	10.4	g ai/100 kg		
	EXP81087A	15.5	g ai/100 kg		
	L1028-E	2.5	g ai/100 kg		
7	BCADDM_07012301	0.75	g ai/100 kg	1 b	0 a
	SP102000023359	497	g ai/100 kg		
	AESCGA BAYTAN 30	10.4	g ai/100 kg		
	EXP81087A	15.5	g ai/100 kg		
	L1028-E	2.5	g ai/100 kg		
8	SP102000023359	497	g ai/100 kg	1 b	0 a
	BCADDM_07012301	0.75	g ai/100 kg		
	AESCGA BAYTAN 30	10.4	g ai/100 kg		
	EXP81087A	15.5	g ai/100 kg		
	L1028-E	2.5	g ai/100 kg		
9	AEFDQM_F106464 00 FSB	250	g ai/100 kg	1 b	0 a
	SP102000023359	497	g ai/100 kg		
	BCADDM_07012301	0.75	g ai/100 kg		
	AESCGA BAYTAN 30	10.4	g ai/100 kg		
	EXP81087A	15.5	g ai/100 kg		
	L1028-E	2.5	g ai/100 kg		
10	AEFDQM_F106464 00 FSB	500	g ai/100 kg	1 b	0 a
	AESCGA BAYTAN 30	10.4	g ai/100 kg		
	EXP81087A	15.5	g ai/100 kg		
	L1028-E	2.5	g ai/100 kg		
11	BCORKA_AVICTA 500FS	0.15	mg ai/seed	1 b	0 a
	BCSTON_02100602	0.34	mg ai/seed		
	BCADDM_07012301	0.75	g ai/100 kg		
	AESCGA BAYTAN 30	10.4	g ai/100 kg		
	EXP81087A	15.5	g ai/100 kg		
	L1028-E	2.5	g ai/100 kg		

Part Rated				Damage	ADULT
Rating Date				9/Jun/2010	9/Jun/2010
Rating Data Type				Damage	Thrips
Rating Unit				1-5	/5 plts
Trt No.	Treatment Name	Rate	Rate Unit		
12	SP102000023359	497	g ai/100 kg	1 b	0 a
	BCADDM_07012301	0.75	g ai/100 kg		
	AESCGA BAYTAN 30	10.4	g ai/100 kg		
	EXP81087A	15.5	g ai/100 kg		
	L1028-E	2.5	g ai/100 kg		
LSD (P=.05)				0.7	0.5
Standard Deviation				0.5	0.3
CV				40.2	208.89
Grand Mean				1.19	0.17
Bartlett's X2				2.316	0.0
P(Bartlett's X2)				0.314	1.00
Replicate F				1.798	1.375
Replicate Prob(F)				0.1668	0.2675
Treatment F				3.416	1.625
Treatment Prob(F)				0.0030	0.1372

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.

Tipton Grain Sorgum

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BAS 662 00 F/SORGHUM/SEED TREATMENT/COLD TOLERANCE

Objectives:
Efficacy of F500-containing seed treatments on reduction of cold sensitivity in sorghum.

Crop Description

Crop 1: SORVU — SORGHUM, GRAIN
Planting Date: 23/Jun/2010
Planting Method: BEDDED
Rate, Unit: 7 S/ROW-FT
Spacing Within Row, Unit: 40 IN
Seed Bed: fine
Soil Temperature, Unit: 74 F
Soil Moisture: NORMAL

Site and Design

Plot Width, Unit: 10 FT
Site Type: sandy loam
Plot Length, Unit: 25 FT
Tillage Type: conventional
Replications: 4
Study Design: Randomized Complete Block

Trial Initiation Comments:
Later planting to see if any differences occur at a time when sorghum is planted following wheat. Although the weather was not cold it is appropriate to test under warm conditions as issues under warm to hot conditions can arise under certain situations.

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	4/May/2010	Bicep Mangum II				1.0	QT/A

Comment: One quart per acre

Moisture Conditions

Overall Moisture Conditions: moisture was excellent at planting
Closest Weather Station: Tipton Okla. Mesonet System **Distance:** 300 **Unit:** FT

Description Rating Date Rating Data Type Rating Unit				Plants acre 28/Jun/2010 COUPLA PLANT	Plants acre 1/Jul/2010 COUPLA PLANT	Plants acre 7/Jul/2010 COUPLA PLANT	Plants acre 14/Jul/2010 COUPLA PLANT	Vigor 14/Jul/2010 COUPLA PLANT	Damage 14/Jul/2010 COUPLA PLANT
Trt No.	Treatment Name	Rate	Rate Unit						
1	CHECK - WATER			35250 a	81250 a	82250 a	79250 a	4 a	1 a
2	BAS 66200F	125.0	ml/100 kg	34750 a	69500 a	68500 a	67250 a	5 a	1 a
3	MAXIM XL	21.6	ml/100 kg	32000 a	82000 a	81250 a	79250 a	4 a	1 a
	APRON XL	15.3	ml/100 kg						
4	MAXIM XL	21.6	ml/100 kg	40750 a	91750 a	88750 a	87000 a	4 a	1 a
	APRON XL	15.3	ml/100 kg						
	STAMINA	50.0	ml/100 kg						
LSD (P=.05)				10868.6	19555.0	16026.4	14684.3	1.0	0.0
Standard Deviation				6795.1	12225.9	10019.8	9180.7	0.6	0.0
CV				19.04	15.07	12.5	11.74	15.59	0.0
Grand Mean				35687.5	81125.01	80187.51	78187.51	4.0	1.0
Bartlett's X2				1.309	4.215	2.84	1.716	2.039	0.0
P(Bartlett's X2)				0.727	0.239	0.417	0.633	0.564	.
Replicate F				6.040	9.101	10.225	9.657	1.714	0.000
Replicate Prob(F)				0.0154	0.0043	0.0029	0.0036	0.2332	1.0000
Treatment F				1.164	2.219	2.859	3.157	2.143	0.000
Treatment Prob(F)				0.3761	0.1553	0.0968	0.0788	0.1649	1.0000

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.

Description Rating Date Rating Data Type Rating Unit				Plants acre 21/Jul/2010 COUPLA PLANT	Yield 4/Nov/2010 Grain /5 foot	Yield 4/Nov/2010 Grain Lbs/Acre	Yield 4/Nov/2010 Grain Bu/acre
Trt No.	Treatment Name	Rate	Rate Unit				
1	CHECK - WATER			78000 ab	461 a	5363.3 a	95.8 a
2	BAS 66200F	125.0	ml/100 kg	66000 b	374 a	4350.6 a	77.7 a
3	MAXIM XL	21.6	ml/100 kg	78000 ab	278 a	3236.1 a	57.8 a
	APRON XL	15.3	ml/100 kg				
4	MAXIM XL	21.6	ml/100 kg	86500 a	504 a	5869.7 a	104.8 a
	APRON XL	15.3	ml/100 kg				
	STAMINA	50.0	ml/100 kg				
LSD (P=.05)				13384.8	215.7	2510.83	44.84
Standard Deviation				8368.3	134.9	1569.79	28.03
CV				10.85	33.36	33.36	33.36
Grand Mean				77125.01	404.19	4704.93	84.02
Bartlett's X2				1.609	3.428	3.428	3.428
P(Bartlett's X2)				0.657	0.33	0.33	0.33
Replicate F				12.665	1.200	1.200	1.200
Replicate Prob(F)				0.0014	0.3641	0.3641	0.3641
Treatment F				4.059	2.204	2.204	2.204
Treatment Prob(F)				0.0444	0.1572	0.1572	0.1572

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.

PONCHO SEED TREATMENT TRIAL TIPTON

Objectives:
.Efficacy of Poncho on Grain Sorghum

Crop Description

Crop 1: SORVU SORGHUM, GRAIN
Planting Date: 23/Jun/2010
Planting Method: BEDDED
Rate, Unit: 7 S/ROW-FT
Spacing Within Row, Unit: 40 IN
Seed Bed: CLODDY
Soil Temperature, Unit: 76 F
Soil Moisture: NORMAL

Site and Design

Plot Width, Unit: 10 FT
Site Type: sandy loam
Plot Length, Unit: 25 FT
Tillage Type: conventional
Replications: 4
Study Design: Randomized Complete Block

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	15/Apr/2010	Bicep Mangum II				1.0	QT/A

Comment: One quart per acre

Description Rating Date Rating Data Type Rating Unit				Plants acre 30/Jun/2010 COUPLA PLANT	Plants acre 7/Jul/2010 COUPLA PLANT	Plants acre 14/Jul/2010 COUPLA PLANT	Vigor 14/Jul/2010 PLANT	Damage 14/Jul/2010 0-5	Plants acre 21/Jul/2010 COUPLA PLANT
Trt No.	Treatment Name	Rate	Rate Unit						
1	VORTEX FL	0.08555		61750 a	63250 a	62250 a	4 a	1 a	56250 a
	ALLEGIANCE FL	0.3617							
	PONCHO 600	5.113							
	PRECISE S FINISHER 1009	1.994							
	PRO-IZED RED COLORANT	0.3006							
	TALC	1							
2	VORTEX FL	0.08555		70750 a	69500 a	61000 a	4 a	1 a	60500 a
	ALLEGIANCE FL	0.375							
	PONCHO 600	5.113							
	AE 0001789	1.6							
	PRECISE S FINISHER 1009	1.994							
	PRO-IZED RED COLORANT	0.3006							
	TALC	1							
3	VORTEX FL	0.08555		67250 a	67000 a	64500 a	4 a	1 a	58000 a
	ALLEGIANCE FL	0.375							
	PRECISE S FINISHER 1009	1.994							
	PRO-IZED RED COLORANT	0.3006							
	TALC	1							
	AE 0001789	1.6							
	PONCHO VOTIVO	6.1							
4	MAXIM	0.0799		70750 a	68500 a	65500 a	4 a	1 a	62000 a
	APRON XL	0.32							
	CRUISER 5FS	5.113							
	CONCEP III	0.64							
	CF NEUTRAL	0.997							
	PRO-IZED RED COLORANT	0.3006							
	TALC	1							
LSD (P=.05)				16036.9	11101.5	10536.6	0.7	0.0	10242.5
Standard Deviation				10026.4	6940.7	6587.6	0.4	0.0	6403.7
CV				14.83	10.35	10.4	10.21	0.0	10.82
Grand Mean				67625.01	67062.51	63312.51	4.0	1.0	59187.51
Bartlett's X2				5.932	12.574	4.347	1.426	0.0	3.54
P(Bartlett's X2)				0.115	0.006*	0.226	0.699	.	0.316
Replicate F				2.023	2.084	0.048	10.000	0.000	0.249
Replicate Prob(F)				0.1812	0.1727	0.9854	0.0032	1.0000	0.8598
Treatment F				0.719	0.624	0.389	3.000	0.000	0.640
Treatment Prob(F)				0.5655	0.6172	0.7636	0.0877	1.0000	0.6084

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.

Description Rating Date Rating Data Type Rating Unit				Yield 4/Nov/2010 Grain /5 foot	Yield 4/Nov/2010 YIELD LB/A	Yield 4/Nov/2010 YIELD bu/ac
Trt No.	Treatment Name	Rate	Rate Unit			
1	VORTEX FL	0.08555		372 a	2093.4 a	78.5 a
	ALLEGIANCE FL	0.3617				
	PONCHO 600	5.113				
	PRECISE S FINISHER 1009	1.994				
	PRO-IZED RED COLORANT	0.3006				
	TALC	1				
2	VORTEX FL	0.08555		364 a	2046.9 a	76.7 a
	ALLEGIANCE FL	0.375				
	PONCHO 600	5.113				
	AE 0001789	1.6				
	PRECISE S FINISHER 1009	1.994				
	PRO-IZED RED COLORANT	0.3006				
	TALC	1				
3	VORTEX FL	0.08555		450 a	2535.4 a	95.0 a
	ALLEGIANCE FL	0.375				
	PRECISE S FINISHER 1009	1.994				
	PRO-IZED RED COLORANT	0.3006				
	TALC	1				
	AE 0001789	1.6				
	PONCHO VOTIVO	6.1				
4	MAXIM	0.0799		426 a	2398.8 a	89.9 a
	APRON XL	0.32				
	CRUISER 5FS	5.113				
	CONCEP III	0.64				
	CF NEUTRAL	0.997				
	PRO-IZED RED COLORANT	0.3006				
	TALC	1				
LSD (P=.05)				220.2	1239.83	46.47
Standard Deviation				137.7	775.15	29.05
CV				34.17	34.17	34.17
Grand Mean				402.88	2268.62	85.03
Bartlett's X2				5.225	5.225	5.225
P(Bartlett's X2)				0.156	0.156	0.156
Replicate F				1.938	1.938	1.938
Replicate Prob(F)				0.1940	0.1940	0.1940
Treatment F				0.373	0.373	0.373
Treatment Prob(F)				0.7747	0.7748	0.7747

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.

NIPSIT INSIDE PACKAGE DEVELOPMENT STUDY FOR SORGHUM

Objectives:
Determine Nipsit INSIDE performance with potential development packages for sorghum. Assess seedling disease dieback and identification of pathogens inciting seedling dieback. Monitor insect populations and damage to determine field performance of Nipsit vs. competitive standards used in the sorghum market.

Crop Description

Crop 1: SORVU — SORGHUM, GRAIN
Planting Date: 23/Jun/2010
Planting Method: BEDDED
Rate, Unit: 7 S/ROW-FT
Spacing Within Row, Unit: 40 IN
Seed Bed: CLODDY
Soil Temperature, Unit: 76 F
Soil Moisture: NORMAL

Site and Design

Plot Width, Unit: 10 FT
Site Type: sandy loam
Plot Length, Unit: 25 FT
Tillage Type: conventional
Replications: 4
Study Design: Randomized Complete Block

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	15/Apr/2010	Bicep Mangum II				1.0	QT/A

Comment: One quart per acre

Description Rating Date Rating Data Type Rating Unit				Plants acre 30/Jun/2010 COUPLA PLANT	Plants acre 7/Jul/2010 COUPLA PLANT	Plants acre 14/Jul/2010 COUPLA PLANT	Plants acre 21/Jul/2010 COUPLA PLANT	Plants acre 14/Jul/2010 vigor PLANT	Plants acre 14/Jul/2010 damage PLANT
Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4	5	6
1	UNTREATED CHECK	0	fl oz/cwt	44000 a	45250 a	46250 a	44000 a	3 a	1 a
2	MAXIM 4FS	0.08	fl oz/cwt	47250 a	49250 a	45500 a	52000 a	3 a	1 a
	APRON XL	0.32	fl oz/cwt						
	CONCEP III	18.1	g ai/cwt						
3	MAXIM 4FS	0.08	fl oz/cwt	55500 a	55250 a	58000 a	52000 a	4 a	1 a
	APRON XL	0.32	fl oz/cwt						
	CONCEP III	18.1	fl oz/cwt						
	CRUISER	5.1	fl oz/cwt						
4	VORTEX	0.086	fl oz/cwt	44500 a	47000 a	51750 a	48750 a	4 a	1 a
	ALLEGIANCE-FL	0.4	fl oz/cwt						
	CONCEP III	18.1	g ai/cwt						
	PONCHO 600	5.1	fl oz/cwt						
5	MAXIM 4FS	0.08	fl oz/cwt	52250 a	51500 a	53000 a	47000 a	4 a	1 a
	APRON XL	0.32	fl oz/cwt						
	CONCEP III	18.1	fl oz/cwt						
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt						
6	V-10260	0.7	fl oz/cwt	51000 a	53500 a	55500 a	52500 a	4 a	1 a
	CONCEP III	18.1	g ai/cwt						
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt						
7	V-10230	0.7	fl oz/cwt	50750 a	50000 a	50250 a	49750 a	4 a	1 a
	CONCEP III	18.1	g ai/cwt						
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt						
8	V-10321	0.81	fl oz/cwt	51250 a	52500 a	53500 a	52000 a	4 a	1 a
	CONCEP III	18.1	g ai/cwt						
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt						
9	V-10320	1.15	fl oz/cwt	51500 a	54500 a	45500 a	54750 a	4 a	1 a
	CONCEP III	18.1	g ai/cwt						
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt						
10	V-10240	0.8	fl oz/cwt	54750 a	56250 a	54000 a	48750 a	4 a	1 a
	CONCEP III	18.1	g ai/cwt						
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt						
11	V-10322	0.91	fl oz/cwt	45500 a	49250 a	50250 a	50500 a	4 a	1 a
	CONCEP III	18.1	g ai/cwt						
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt						
		5.1	fl oz/cwt						
LSD (P=.05)				11940.3	12004.7	12070.7	9444.0	1.2	0.0
Standard Deviation				8269.4	8314.0	8359.7	6540.5	0.8	0.0
CV				16.59	16.21	16.32	13.03	21.99	0.0
Grand Mean				49840.92	51295.46	51227.28	50181.82	3.75	1.0
Bartlett's X2				6.439	17.859	7.516	7.898	7.21	0.0
P(Bartlett's X2)				0.777	0.057	0.676	0.639	0.705	.
Replicate F				3.686	2.730	1.834	0.231	0.657	0.000
Replicate Prob(F)				0.0226	0.0613	0.1623	0.8741	0.5849	1.0000
Treatment F				0.919	0.705	0.988	0.831	0.955	0.000
Treatment Prob(F)				0.5296	0.7124	0.4743	0.6029	0.5000	1.0000

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.

Description Rating Date Rating Data Type Rating Unit				Plants acre 26/Jul/2010 vigor PLANT	Plants acre 26/Jul/2010 damage PLANT	Yield 4/Nov/2010 Grain /5 foot	Yield 4/Nov/2010 YIELD LB	Yield 4/Nov/2010
Trt No.	Treatment Name	Rate	Rate Unit					
1	UNTREATED CHECK	0	fl oz/cwt	2 a	2 a	383 a	2206.9 a	39.4 a
2	MAXIM 4FS	0.08	fl oz/cwt	2 a	2 a	560 a	3223.9 a	57.6 a
	APRON XL	0.32	fl oz/cwt					
	CONCEP III	18.1	g ai/cwt					
3	MAXIM 4FS	0.08	fl oz/cwt	2 a	3 a	285 a	1639.3 a	29.3 a
	APRON XL	0.32	fl oz/cwt					
	CONCEP III	18.1	fl oz/cwt					
	CRUISER	5.1	fl oz/cwt					
4	VORTEX	0.086	fl oz/cwt	2 a	2 a	426 a	2456.1 a	43.9 a
	ALLEGIANCE-FL	0.4	fl oz/cwt					
	CONCEP III	18.1	g ai/cwt					
	PONCHO 600	5.1	fl oz/cwt					
5	MAXIM 4FS	0.08	fl oz/cwt	2 a	2 a	382 a	2199.7 a	39.3 a
	APRON XL	0.32	fl oz/cwt					
	CONCEP III	18.1	fl oz/cwt					
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt					
6	V-10260	0.7	fl oz/cwt	2 a	2 a	537 a	3094.2 a	55.3 a
	CONCEP III	18.1	g ai/cwt					
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt					
7	V-10230	0.7	fl oz/cwt	3 a	2 a	350 a	2015.3 a	36.0 a
	CONCEP III	18.1	g ai/cwt					
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt					
8	V-10321	0.81	fl oz/cwt	2 a	3 a	510 a	2938.6 a	52.5 a
	CONCEP III	18.1	g ai/cwt					
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt					
9	V-10320	1.15	fl oz/cwt	2 a	2 a	526 a	3030.8 a	54.1 a
	CONCEP III	18.1	g ai/cwt					
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt					
10	V-10240	0.8	fl oz/cwt	2 a	3 a	349 a	2010.9 a	35.9 a
	CONCEP III	18.1	g ai/cwt					
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt					
11	V-10322	0.91	fl oz/cwt	2 a	2 a	351 a	2019.6 a	36.1 a
	CONCEP III	18.1	g ai/cwt					
	NIPSIT INSIDE INSECT	5.1	fl oz/cwt					
		5.1	fl oz/cwt					
LSD (P=.05)				0.8	0.5	237.2	1366.88	24.41
Standard Deviation				0.6	0.4	164.3	946.65	16.91
CV				32.23	16.25	38.8	38.8	38.8
Grand Mean				1.8	2.18	423.39	2439.57	43.57
Bartlett's X2				4.338	0.139	11.601	11.601	11.601
P(Bartlett's X2)				0.888	0.998	0.313	0.313	0.313
Replicate F				5.679	1.928	0.471	0.471	0.471
Replicate Prob(F)				0.0033	0.1464	0.7050	0.7050	0.7050
Treatment F				1.018	1.627	1.310	1.310	1.310
Treatment Prob(F)				0.4518	0.1467	0.2698	0.2698	0.2698

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.

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Altus Weather

All Data can be accessed at http://agweather.mesonet.org/index.php/data/section/weather

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MESONET CLIMATOLOGICAL DATA SUMMARY — May 2010 — Time Zone: Midnight-Midnight CST

(ALTU) Altus — Nearest City: 3.0 S Altus — County: Jackson

Latitude: 34-35-13 — Longitude: 99-20-17 — Elevation: 1365 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	70	51	60.8	43.2	5	0	77	31	53	0.00	28.19	29.62	SSE	8.6	23.9	9.52	60.6	64.5	67	63
2	83	44	62.7	36.2	2	0	93	13	46	0.00	28.20	29.63	SSW	10.6	46.8	28.55	59.9	64.2	71	58
3	73	43	58.1	42.4	7	0	85	33	58	0.00	28.50	29.95	SSE	9.5	26.9	18.09	59.0	62.6	67	59
4	97	43	70.0	41.0	0	5	97	9	47	0.00	28.36	29.80	S	14.3	35.0	30.85	59.8	64.8	73	57
5	82	56	69.0	38.5	0	4	70	15	37	0.00	28.40	29.85	NNE	13.2	37.6	30.94	61.7	68.2	75	62
6	96	54	75.7	55.2	0	10	92	21	54	0.00	28.26	29.70	SSE	14.6	34.3	30.07	63.0	70.3	77	63
7	76	50	66.3	38.8	2	0	67	16	40	0.00	28.54	29.99	N	19.9	44.2	30.43	64.0	70.6	74	67
8	72	45	59.6	33.2	7	0	65	20	40	0.00	28.82	30.28	ESE	10.3	25.5	25.23	62.2	67.0	72	61
9	62	54	58.3	46.5	7	0	90	43	66	0.19	28.63	30.09	ESE	14.3	29.3	6.45	61.1	64.3	67	62
10	98	57	74.4	46.3	0	13	92	7	51	0.00	28.26	29.70	SE	20.0	47.7	27.04	61.9	67.2	75	61
11	91	47	72.3	54.4	0	4	84	34	55	0.00	28.28	29.72	SE	13.1	35.3	27.14	63.0	69.5	77	61
12	85	68	75.6	67.5	0	11	91	58	77	0.28	28.24	29.68	SSE	15.3	34.6	11.82	66.0	71.5	74	70
13	69	51	58.3	51.8	5	0	97	62	79	0.81	28.56	30.01	NE	13.8	53.4	20.43	64.0	65.7	69	62
14	64	57	59.0	56.2	5	0	97	85	91	0.83	28.66	30.12	NE	12.7	31.5	4.53	62.8	62.6	64	62
15	69	56	62.0	58.2	2	0	97	65	88	0.07	28.61	30.06	NNE	5.0	14.5	12.63	62.6	63.5	69	60
16	80	59	68.8	61.2	0	5	98	44	79	0.01	28.56	30.02	SSW	4.2	19.2	26.25	65.0	68.5	75	62
17	79	57	66.4	59.1	0	3	97	45	80	0.00	28.61	30.06	NNE	7.1	19.6	20.89	65.9	67.9	73	64
18	79	58	68.4	60.4	0	4	94	56	77	0.00	28.50	29.95	ESE	11.2	24.8	26.29	66.5	69.6	76	64
19	91	63	74.8	57.5	0	12	95	16	63	0.00	28.25	29.69	SE	13.2	26.6	26.56	67.7	73.0	80	67
20	83	56	69.7	54.0	0	5	89	34	60	0.00	28.37	29.82	NNW	7.0	19.1	31.16*	67.7	74.1	82	66
21	87	57	73.1	62.7	0	7	92	51	72	0.00	28.44	29.89	SE	12.2	26.7	NA	68.2	74.4	80	68
22	89	69	78.3	67.9	0	14	91	51	72	0.00	28.31	29.75	SSE	19.0	36.4	NA	69.5	75.6	79	72
23	91	70	79.4	66.5	0	15	92	40	67	0.00	28.36	29.81	SE	18.1	35.9	NA	70.2	76.4	81	72
24	88	72	78.3	67.4	0	15	89	51	70	0.00	28.39	29.83	SE	19.5	37.3	NA	70.6	76.4	80	73
25	86	66	75.7	63.0	0	11	90	44	66	0.00	28.49	29.94	SE	11.7	26.4	NA	70.8	76.8	82	72
26	87	61	71.2	64.1	0	9	97	47	80	0.93	28.56	30.01	SE	7.3	46.3	NA	70.2	74.8	80	71
27	89	62	75.4	63.4	0	10	96	35	70	0.00	28.57	30.02	S	5.5	15.9	NA	70.4	74.3	81	68
28	91	65	78.2	63.0	0	13	94	34	63	0.00	28.50	29.94	SSE	6.5	19.3	NA	72.2	76.3	82	70
29	94	65	80.1	62.2	0	14	95	29	59	0.00	28.38	29.82	ESE	9.2	20.0	NA	72.7	78.7	86	72
30	96	67	82.6	60.2	0	17	88	24	53	0.00	28.37	29.81	ESE	10.0	22.6	NA	73.2	81.0	89	74
31	96	68	81.5	62.3	0	17	89	26	56	0.00	28.47	29.92	NNE	11.0	26.1	NA	74.0	82.4	89	76
	84	58	70.4	55.0	<- Monthly Averages ->						28.44	29.89	SE	11.9	53.4	22.24*	66.0	70.9	76	66

Temperature - Highest: 98
Lowest: 43

Degree Days - Total HDD: 42
Total CDD: 219

Rainfall: Monthly Total: 3.12 in.
Greatest 24 Hr: 0.93 in.

Humidity - Highest: 98
Lowest: 7

Number of Days With:
Tmax ≥ 90: 10 — Rainfall ≥ 0.01 inch: 7
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 5
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 21
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 14

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* Denotes incomplete record

monthly data generated on wednesday, august 11, 2010 at 20:09 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — June 2010 — Time Zone: Midnight-Midnight CST

(ALTU) Altus — Nearest City: 3.0 S Altus — County: Jackson

Latitude: 34-35-13 — Longitude: 99-20-17 — Elevation: 1365 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	98	71	85.2	57.1	0	20	66	20	41	0.00	28.38	29.83	S	14.5	32.7	NA	74.2	82.9	89	77
2	97*	70*	83.0*	57.4*	0*	19*	74*	22*	45*	0.00*	28.28*	29.72*	SSE*	10.8*	39.7*	NA	74.1*	83.5*	90*	77*
3	95	67	80.7	63.2	0	16	89	29	59	0.00	28.32	29.76	SE	6.7	18.7	28.53	74.7	83.8	90	78
4	98	66	83.3	61.6	0	17	89	26	53	0.00	28.32	29.77	SSE	10.8	25.7	30.47	75.3	84.1	90	78
5	103	69	86.8	63.4	0	21	80	27	50	0.00	28.29	29.73	S	14.1	30.2	30.69	75.6	84.2	90	78
6	99	73	86.4	67.5	0	21	80	31	56	0.00	28.48	29.92	ESE	11.5	26.7	26.38	76.4	85.4	91	80
7	97	72	85.0	68.7	0	20	94	35	62	0.00	28.48	29.93	SSE	13.4	34.1	23.73	76.6	84.6	89	80
8	99	75	86.9	66.4	0	22	83	31	54	0.00	28.40	29.84	SSE	15.5	31.6	27.88	77.0	84.9	90	80
9	96	70	83.3	66.1	0	18	88	34	59	0.00	28.44	29.89	SE	11.2	25.2	27.32	77.0	84.9	90	80
10	101	71	84.7	70.4	0	21	97	35	67	0.26	28.33	29.77	SSE	14.7	46.1	22.18	77.3	84.8	90	81
11	95	70	81.8	70.9	0	17	96	45	72	0.18	28.32	29.76	SSE	17.4	32.0	23.81	76.8	81.7	86	78
12	95	75	84.8	68.9	0	20	85	38	61	0.00	28.43	29.88	SSE	17.8	32.8	23.42	77.0	82.8	88	78
13	96	77	83.9	70.2	0	22	82	41	65	0.00	28.44	29.89	SSE	16.0	32.3	16.72	76.8	82.5	87	80
14	87	68	74.6	68.3	0	12	98	55	82	1.52	28.42	29.87	SE	8.7	45.8	7.01	75.4	78.4	81	74
15	88	66	76.2	67.7	0	12	99	47	77	0.00	28.51	29.96	SE	5.7	15.3	27.82	75.2	77.6	84	72
16	92	72	82.1	69.5	0	17	92	42	68	0.00	28.52	29.97	SSE	12.3	30.9	29.87	77.4	80.4	86	75
17	94	74	83.7	66.7	0	19	83	38	59	0.00	28.46	29.91	S	16.7	33.3	30.00	77.6	82.2	89	76
18	96	75	85.7	68.4	0	21	79	38	58	0.00	28.46	29.91	S	14.8	29.7	30.39	77.8	84.3	91	78
19	98	74	86.9	68.2	0	21	82	36	56	0.00	28.51	29.95	SSE	12.8	27.1	29.81	78.6	85.8	92	80
20	98	77	86.7	66.6	0	22	77	32	54	0.00	28.49	29.94	SSE	14.2	29.1	29.90	78.9	86.4	92	81
21	98	79	87.3	63.4	0	23	62	25	47	0.00	28.47	29.92	SSE	14.6	27.8	30.34	78.9	86.8	92	82
22	98	74	87.0	64.8	0	21	80	29	51	0.00	28.51	29.95	SSE	13.9	35.7	31.16	78.9	86.6	92	81
23	100	73	88.1	64.5	0	22	79	29	48	0.00	28.54	29.99	SSE	10.4	22.0	29.93	79.2	87.4	94	81
24	100	74	86.7	65.9	0	22	90	25	54	0.10	28.58	30.03	SSE	7.4	37.3	28.71	80.0	88.2	94	83
25	99	70	84.8	66.4	0	20	92	29	58	0.00	28.52	29.97	SSE	9.0	25.7	30.75	80.1	88.4	95	82
26	100	71	86.6	65.3	0	20	92	29	54	0.00	28.40	29.85	SSE	12.0	26.2	30.55	80.2	88.4	94	83
27	99	69	83.7	64.8	0	19	92	27	56	1.46	28.33	29.78	SSE	12.0	45.0	26.96	79.8	87.7	95	83
28	82	69	75.5	68.2	0	11	94	58	79	0.07	28.47	29.92	E	7.1	22.3	12.43	77.1	80.0	83	77
29	89	71	79.4	66.6	0	15	93	37	68	0.00	28.59	30.04	NE	10.8	28.6	29.85	78.2	80.3	85	76
30	91	66	79.1	62.4	0	13	95	30	61	0.00	28.64	30.09	E	8.9	23.2	30.09	78.0	81.8	90	75
	96*	72*	83.7*	66.0*	<- Monthly Averages ->						28.44*	29.89*	SSE*	12.2*	46.1*	26.67*	77.3*	84.0*	90*	79*

Temperature - Highest: 103*
Lowest: 66*

Degree Days - Total HDD: 0*
Total CDD: 564*

Rainfall: Monthly Total: 3.59* in.
Greatest 24 Hr: 1.52* in.

Humidity - Highest: 99*
Lowest: 20*

Number of Days With:
Tmax ≥ 90: 26* — Rainfall ≥ 0.01 inch: 6*
Tmax ≤ 32: 0* — Rainfall ≥ 0.10 inch: 5*
Tmin ≤ 32: 0* — Avg Wind Speed ≥ 10 mph: 23*
Tmin ≤ 0: 0* — Max Wind Speed ≥ 30 mph: 15*

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* Denotes incomplete record

monthly data generated on monday, august 30, 2010 at 13:29 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — July 2010 — Time Zone: Midnight-Midnight CST

(ALTU) Altus — Nearest City: 3.0 S Altus — County: Jackson

Latitude: 34-35-13 — Longitude: 99-20-17 — Elevation: 1365 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	82	71	76.4	69.4	0	12	96	61	80	0.49	28.66	30.11	ESE	8.1	19.5	8.70	77.3	79.1	82	77
2	82	72	75.4	71.9	0	12	97	70	89	0.66	28.57	30.02	ESE	6.9	19.8	10.49	77.0	77.5	80	75
3	84	73	76.3	72.8	0	13	98	66	90	1.35	28.45	29.90	SSE	10.8	22.7	10.01	76.9	77.2	79	76
4	76	71	74.1	72.3	0	8	97	87	94	0.47	28.40	29.85	SSE	9.2	22.2	5.73	76.3	76.5	78	76
5	84	72	77.3	73.2	0	13	98	73	88	0.52	28.39	29.84	S	10.8	26.0	16.36	76.6	77.8	82	75
6	91	74	80.1	72.4	0	17	97	49	79	0.00	28.46	29.91	ESE	6.1	22.3	18.40	78.1	79.8	85	76
7	89	71	76.6	70.9	0	15	97	55	84	0.07	28.53	29.98	ENE	6.6	24.1	20.19	79.0	79.7	85	76
8	85	72	75.5	72.1	0	14	98	66	90	1.76	28.61	30.06	NNE	6.8	20.9	11.40	78.3	77.9	81	76
9	81	72	74.3	72.0	0	12	98	72	93	0.39	28.63	30.09	NE	5.1	19.0	10.04	77.2	77.7	80	76
10	86	73	77.7	73.2	0	14	98	67	87	0.00	28.56	30.01	S	5.4	21.6	21.75	78.3	80.2	86	76
11	92	71	81.3	73.3	0	16	99	55	78	0.41	28.40	29.84	S	9.7	29.4	28.19	80.0	80.9	86	76
12	87	71	78.3	72.8	0	14	98	63	84	0.24	28.33	29.77	S	9.1	26.9	21.69	79.9	80.6	85	77
13	94	74	84.3	75.4	0	19	97	54	76	0.00	28.36	29.80	SSE	8.6	19.4	29.99	81.2	82.4	88	77
14	92	76	84.1	75.3	0	19	93	58	76	0.00	28.46	29.91	S	10.5	21.1	24.37	82.1	82.6	86	79
15	92	76	83.7	74.3	0	19	92	57	74	0.00	28.51	29.96	S	8.9	20.2	22.97	82.1	81.9	86	78
16	94	74	84.0	73.3	0	19	97	42	73	0.00	28.54	29.99	SW	6.4	17.1	26.56	82.5	83.3	89	78
17	98	73	85.1	69.9	0	20	94	30	65	0.00	28.52	29.97	SW	6.4	15.0	30.42	82.9	86.3	95	79
18	98	71	85.3	66.9	0	19	89	30	58	0.00	28.49	29.94	S	7.1	17.5	30.40	82.8	87.6	95	80
19	97	73	85.9	68.8	0	20	89	37	60	0.00	28.47	29.92	SSE	8.6	21.7	29.45	82.9	88.4	95	82
20	96	76	86.2	69.8	0	21	83	40	60	0.00	28.49	29.94	SSE	11.0	23.5	28.75	82.9	88.7	94	83
21	95*	73*	84.9*	66.4*	0*	19*	83*	33*	56*	0.00*	28.56*	30.01*	SSE*	10.9*	25.7*	27.27*	82.5*	88.5*	94*	83*
22	95	74	85.1	68.7	0	19	86	42	60	0.00	28.51	29.96	SSE	12.1	31.1	29.31	82.0	88.2	94	83
23	94	76	85.1	69.6	0	20	80	42	61	0.00	28.50	29.95	S	12.2	27.3	27.37	81.9	88.2	93	83
24	95	76	85.4	69.3	0	20	85	39	61	0.00	28.55	30.00	SSE	9.1	21.1	27.06	82.3	88.8	95	84
25	96	72	83.7	62.0	0	19	85	23	52	0.00	28.59	30.04	SSE	6.4	19.7	29.47	82.3	89.1	95	83
26	94	68	80.1	65.3	0	16	89	31	63	0.02	28.57	30.02	SSE	7.0	28.2	26.20	81.8	87.8	95	82
27	89	67	77.9	67.1	0	13	96	43	72	0.00	28.55	30.00	SSE	8.4	25.2	26.59	81.3	86.4	92	81
28	91	69	78.6	69.2	0	15	91	50	74	0.00	28.61	30.06	S	7.4	25.4	23.24	81.1	86.4	91	82
29	91	73	81.7	69.5	0	17	95	46	69	0.00	28.62	30.07	S	9.2	21.6	28.23	81.6	87.4	94	82
30	92	69	82.4	67.4	0	15	84	48	62	0.00	28.50	29.95	SSW	9.4	23.3	25.83	81.5	87.3	93	82
31	100	73	87.3	68.6	0	22	85	31	57	0.00	28.42	29.86	SSE	5.8	18.8	28.84	82.4	89.6	97	83
	91*	72*	81.1*	70.4*	<- Monthly Averages ->						28.51*	29.96*	SSE*	8.4*	31.1*	22.75*	80.5*	83.7*	89*	79*

Temperature - Highest: 100*
Lowest: 67*

Degree Days - Total HDD: 0*
Total CDD: 513*

Rainfall: Monthly Total: 6.38* in.
Greatest 24 Hr: 1.76* in.

Humidity - Highest: 99*
Lowest: 23*

Number of Days With:
Tmax ≥ 90: 20* — Rainfall ≥ 0.01 inch: 11*
Tmax ≤ 32: 0* — Rainfall ≥ 0.10 inch: 9*
Tmin ≤ 32: 0* — Avg Wind Speed ≥ 10 mph: 7*
Tmin ≤ 0: 0* — Max Wind Speed ≥ 30 mph: 1*

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* Denotes incomplete record

monthly data generated on thursday, september 30, 2010 at 13:29 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — August 2010 — Time Zone: Midnight-Midnight CST

(ALTU) Altus — Nearest City: 3.0 S Altus — County: Jackson

Latitude: 34-35-13 — Longitude: 99-20-17 — Elevation: 1365 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4* SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	102	74	88.8	65.1	0	23	81	28	49	0.00	28.41	29.86	SSE	6.9	21.3	28.59	83.3	91.1	97	85
2	100	70	86.2	62.7	0	20	77	27	48	0.00	28.47	29.92	SSE	7.7	18.9	29.47	83.1	90.4	97	84
3	99	71	85.9	63.9	0	20	77	28	50	0.00	28.52	29.97	SSE	7.7	20.3	29.15	83.1	90.2	97	84
4	100	72	86.2	68.2	0	21	81	36	57	0.00	28.48	29.93	S	7.9	34.8	28.40	83.4	90.6	97	85
5	96	71	85.2	67.7	0	19	93	33	59	0.00	28.48	29.93	NE	6.9	30.4	27.96	83.2	90.7	97	85
6	95	75	84.4	69.3	0	20	83	38	62	0.00	28.48	29.92	N	6.6	20.7	22.54	83.2	90.3	95	86
7	97	73	85.0	69.7	0	20	87	39	63	0.00	28.41	29.86	SSE	6.4	17.1	26.12	83.5	90.3	97	85
8	98	74	86.7	69.1	0	21	84	37	58	0.00	28.39	29.84	S	8.4	21.3	26.28	84.1	90.9	96	86
9	98	75	86.7	68.3	0	21	79	36	56	0.00	28.42	29.87	SSE	8.3	21.6	27.21	84.3	91.2	97	86
10	96	72	83.9	69.6	0	19	88	37	64	0.00	28.47	29.92	SSE	6.4	24.7	21.77	83.8	90.3	95	86
11	100	74	86.2	69.1	0	22	79	30	59	0.00	28.45	29.90	S	5.9	22.3	28.41	84.2	91.2	98	85
12	99	75	87.1	68.8	0	22	87	31	57	0.00	28.38	29.83	SSE	6.2	17.4	27.02	84.8	92.0	98	86
13	98	76	87.2	68.0	0	22	77	33	54	0.00	28.32	29.76	SSW	9.1	21.1	26.83	84.9	91.9	98	87
14	100	73	87.5	67.0	0	22	80	30	53	0.00	28.38	29.83	SSE	7.6	20.2	27.29	84.8	91.9	98	86
15	102	76	85.4	68.3	0	24	80	29	59	0.00	28.52	29.97	NE	9.1	28.1	22.66	84.5	91.3	97	87
16	98	71	80.7	69.0	0	19	97	36	71	1.12	28.57	30.02	NE	10.0	39.9	24.37	82.8	89.5	96	85
17	89	71	78.7	71.7	0	15	95	52	80	0.38	28.50	29.95	NE	7.2	22.6	20.00	81.5	84.3	89	80
18	92	73	81.0	71.6	0	17	95	45	75	0.00	28.53	29.98	NE	6.2	15.8	25.66	82.3	84.3	90	80
19	93	72	82.4	72.3	0	17	97	46	74	0.00	28.41	29.85	SSE	6.8	16.9	27.40	83.0	86.0	94	79
20	94	75	84.1	72.2	0	19	89	50	69	0.00	28.32	29.76	SSW	9.4	22.8	26.07	83.3	88.0	95	82
21	99	74	85.2	70.4	0	22	83	35	63	0.00	28.44	29.89	SW	5.4	24.4	22.97	83.3	89.3	96	83
22	98	73	85.8	70.6	0	20	93	34	63	0.00	28.51	29.96	NE	4.7	16.2	26.45	83.5	90.2	98	84
23	100	74	87.3	69.7	0	22	88	33	58	0.00	28.44	29.89	E	4.8	12.4	26.88	84.1	91.3	98	85
24	86	74	79.4	65.8	0	15	75	51	64	0.00	28.59	30.04	NNE	16.0	34.5	14.10	81.7	87.3	91	84
25	87	66	75.6	49.5	0	12	62	23	42	0.00	28.73	30.19	NNE	12.2	27.3	27.32	77.7	84.1	90	80
26	88	55	72.0	51.3	0	7	91	17	54	0.00	28.70	30.15	NNE	5.1	12.9	27.62	76.9	82.8	90	76
27	90	62	76.9	56.0	0	11	79	30	50	0.00	28.55	30.00	ESE	7.4	15.9	26.65	77.7	83.5	91	77
28	91	62	78.0	54.3	0	12	79	26	48	0.00	28.45	29.90	SE	10.1	22.9	26.28	78.1	83.8	90	78
29	93	63	80.3	58.1	0	13	77	29	49	0.00	28.43	29.88	SE	10.6	26.7	25.69	78.1	84.1	90	78
30	93	73	83.2	68.1	0	18	83	41	62	0.00	28.48	29.93	S	11.8	26.1	20.93	79.1	85.3	90	81
31	92	73	82.6	69.7	0	18	86	51	66	0.00	28.48	29.93	SSW	11.9	24.9	19.90	79.8	85.8	91	82
	96	71	83.4	66.3	<- Monthly Averages ->						28.47	29.92	SSE	8.1	39.9	25.42	82.3	88.5	95	83

Temperature - Highest: 102
Lowest: 55

Degree Days - Total HDD: 0
Total CDD: 573

Rainfall: Monthly Total: 1.50 in.
Greatest 24 Hr: 1.12 in.

Humidity - Highest: 97
Lowest: 17

Number of Days With:
Tmax ≥ 90: 27 — Rainfall ≥ 0.01 inch: 2
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 2
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 7
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 4

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* Denotes incomplete record

monthly data generated on sunday, october 31, 2010 at 13:29 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — September 2010 — Time Zone: Midnight-Midnight CST

(ALTU) Altus — Nearest City: 3.0 S Altus — County: Jackson

Latitude: 34-35-13 — Longitude: 99-20-17 — Elevation: 1365 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4* SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	94	70	80.1	68.7	0	17	93	39	71	0.00	28.41	29.85	S	9.6	33.5	24.33	80.2	86.4	93	81
2	94	66	77.6	67.7	0	15	97	47	74	0.26	28.46	29.91	SSW	10.4	61.0	23.97	79.8	85.7	93	81
3	82	58	69.8	51.5	0	5	94	28	57	0.00	28.75	30.21	NE	9.6	24.7	26.61	76.7	80.1	86	75
4	83	55	68.6	52.6	0	4	97	29	62	0.00	28.64	30.10	SE	6.7	16.5	26.44	74.8	79.1	87	72
5	92	58	75.6	57.6	0	10	89	30	58	0.00	28.39	29.83	S	11.9	31.9	25.95	75.1	80.0	87	74
6	92	67	79.6	61.7	0	15	85	28	57	0.00	28.35	29.79	S	13.5	35.3	25.72	76.0	81.8	87	77
7	86	71	77.4	69.5	0	13	95	59	77	0.00	28.55	30.00	SE	10.6	24.3	19.07	76.9	82.3	87	78
8	74	70	71.5	69.8	0	7	97	84	94	0.66	28.41	29.86	ENE	14.6	36.2	5.99	75.9	78.4	82	76
9	88	66	76.9	70.1	0	12	98	59	81	0.00	28.35	29.79	S	8.0	20.0	24.43	76.4	78.6	84	74
10	95	73	81.9	70.9	0	19	95	37	72	0.00	28.30	29.74	S	9.6	21.8	24.09	78.2	82.3	90	77
11	88	63	75.9	68.2	0	10	100	55	79	0.00	28.48	29.93	NE	10.2	29.6	17.94	77.5	80.9	86	76
12	90	69	77.6	69.1	0	14	92	56	76	0.00	28.62	30.07	NNE	6.1	18.6	21.77	77.9	82.8	91	77
13	92	69	79.3	71.0	0	16	97	46	78	0.56	28.58	30.03	S	8.1	47.1	19.64	78.7	83.8	89	79
14	93	71	80.7	70.7	0	17	95	46	74	0.00	28.51	29.95	SSE	8.2	17.2	19.47	78.4	81.7	86	78
15	92	71	81.4	70.4	0	16	97	44	72	0.00	28.45	29.90	S	10.1	22.7	23.34	78.9	81.4	87	77
16	92	70	77.8	69.0	0	16	93	48	76	0.30	28.51	29.96	E	9.6	40.4	19.50	78.7	82.1	89	77
17	86	68	76.1	69.0	0	12	96	57	79	0.00	28.55	30.00	SE	5.0	17.5	14.44	77.9	79.4	83	76
18	89	69	78.4	68.0	0	14	97	44	73	0.00	28.59	30.04	SSE	7.6	19.7	22.73	78.3	80.0	85	75
19	88	66	76.9	66.1	0	12	96	44	72	0.00	28.62	30.08	SSE	7.5	22.6	22.91	77.7	80.8	88	75
20	87	66	76.2	64.0	0	12	96	42	69	0.00	28.51	29.96	S	9.6	27.1	22.48	77.1	81.1	87	76
21	86	69	77.0	67.7	0	12	92	57	74	0.00	28.42	29.87	S	11.3	29.7	16.57	76.6	80.9	86	77
22	87	71	78.4	67.6	0	14	90	49	71	0.00	28.45	29.90	SSE	12.9	29.2	16.57	76.5	81.1	85	78
23	82	72	75.8	69.6	0	12	93	62	82	0.09	28.44	29.88	SSE	13.0	34.0	7.41	76.0	79.2	81	77
24	85	69	74.8	70.4	0	12	98	63	87	0.00	28.62	30.08	SE	7.9	17.5	13.96	76.0	78.1	83	75
25	86	68	74.2	66.5	0	12	99	42	79	0.00	28.62	30.08	E	4.4	19.7	16.80	76.3	79.2	85	75
26	77	54	65.6	48.0	0	1	86	28	56	0.00	28.65	30.10	NNE	12.3	33.1	23.45	74.6	77.1	82	72
27	78	45	61.0	48.6	3	0	95	34	67	0.00	28.58	30.03	SSE	4.8	11.6	22.82	71.8	74.0	81	68
28	89	52	69.8	50.2	0	5	92	25	55	0.00	28.47	29.92	NNE	6.7	31.1	22.16	72.0	75.0	82	69
29	88	52	69.6	51.5	0	5	90	26	58	0.00	28.41	29.86	SE	5.3	11.8	22.23	72.1	75.6	82	69
30	86	56	70.4	51.4	0	6	90	30	55	0.00	28.59	30.05	NE	9.2	24.0	21.02	72.4	75.7	81	71
	87	65	75.2	63.9	<- Monthly Averages ->						28.51	29.96	S	9.1	61.0	20.46	76.5	80.1	86	75

Temperature - Highest: 95
Lowest: 45

Degree Days - Total HDD: 3
Total CDD: 335

Rainfall: Monthly Total: 1.87 in.
Greatest 24 Hr: 0.66 in.

Humidity - Highest: 100
Lowest: 25

Number of Days With:
Tmax ≥ 90: 10 — Rainfall ≥ 0.01 inch: 5
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 4
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 11
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 10

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* Denotes incomplete record

monthly data generated on tuesday, november 30, 2010 at 13:30 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — October 2010 — Time Zone: Midnight-Midnight CST

(ALTU) Altus — Nearest City: 3.0 S Altus — County: Jackson

Latitude: 34-35-13 — Longitude: 99-20-17 — Elevation: 1365 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	82	54	68.1	47.2	0	3	83	27	50	0.00	28.68	30.14	ESE	5.4	14.6	19.55	72.1	75.5	81	71
2	84	52	67.5	44.9	0	3	87	26	48	0.00	28.73	30.19	NE	8.4	24.3	20.60	71.8	75.0	80	70
3	64	47	55.1	38.4	9	0	81	31	55	0.00	28.86	30.32	NE	4.8	14.3	9.85	69.3	70.2	73	68
4	75	44	59.3	40.0	5	0	83	28	53	0.00	28.80	30.27	SE	8.4	19.3	20.88	67.3	68.9	75	64
5	80	48	63.3	41.2	1	0	77	24	48	0.00	28.81	30.28	SE	10.0	20.4	19.98	67.5	70.2	76	65
6	85*	48*	64.8*	44.8*	0*	1*	80*	24*	53*	0.00*	28.78*	30.24*	S *	7.7*	16.9*	16.06*	67.9*	71.1*	77*	65*
7	89	52	69.2	46.0	0	5	80	22	48	0.00	28.71	30.17	SSE	6.6	17.0	20.39	68.6	72.2	79	67
8	87	52	69.0	43.0	0	5	75	17	44	0.00	28.62	30.07	SSE	7.4	21.3	20.91	69.0	72.7	79	67
9	89	49	68.6	44.6	0	4	76	22	47	0.00	28.55	30.00	SSE	6.7	20.5	20.22	68.8	72.6	79	67
10	89	55	70.2	52.3	0	7	85	26	57	0.01	28.44	29.89	S	10.2	26.2	16.68	69.2	72.9	77	68
11	82	50	64.1	47.1	0	1	98	22	62	0.00	28.46	29.91	NW	8.3	25.0	19.86	68.5	72.0	77	68
12	84	50	66.0	45.6	0	2	86	22	53	0.00	28.63	30.08	NNW	9.4	29.5	18.56	67.3	70.7	76	66
13	75	45	63.3	38.7	5	0	81	17	45	0.00	28.86	30.32	N	10.3	25.9	19.75	67.3	70.3	75	67
14	80	37	58.3	35.2	7	0	79	20	47	0.00	28.81	30.27	SSE	6.8	15.4	19.76	65.3	67.8	74	62
15	89	48	66.8	42.5	0	3	75	20	45	0.00	28.63	30.09	SSE	6.3	18.1	19.30	66.2	69.3	76	64
16	85	51	67.6	43.7	0	3	73	21	45	0.00	28.62	30.07	S	7.4	19.2	15.03	67.0	69.8	74	65
17	86	52	67.4	43.8	0	4	73	20	46	0.00	28.57	30.02	SSE	8.1	21.9	17.65	67.1	70.0	75	66
18	86	55	69.2	52.2	0	6	82	29	59	0.00	28.45	29.90	SSE	8.2	20.2	15.35	67.6	70.7	75	67
19	77	56	65.0	52.8	0	1	87	45	66	0.00	28.54	29.99	NE	8.9	21.9	17.62	67.7	70.9	76	67
20	81	46	63.1	47.9	1	0	94	24	63	0.00	28.61	30.06	SSE	5.2	11.0	18.37	67.0	70.1	76	65
21	85	52	68.1	54.4	0	4	98	36	64	0.99	28.51	29.96	SSE	10.9	38.6	13.30	67.2	70.0	74	66
22	70	57	62.3	60.3	1	0	99	82	93	0.98	28.41	29.86	ESE	10.3	28.8	5.94	65.9	67.0	70	65
23	67	59	62.3	58.1	2	0	95	71	86	0.00	28.36	29.80	S	12.5	33.1	6.78	65.7	64.8	66	63
24	76	53	63.1	53.2	1	0	92	40	72	0.00	28.30	29.74	SSW	5.8	16.6	17.43	65.2	64.5	70	60
25	86	53	67.0	47.8	0	4	91	24	55	0.00	27.97	29.40	SSW	13.5	39.0	11.24	64.8	62.9	65	60
26	73	42	57.8	37.9	7	0	95	15	55	0.00	28.25	29.69	W	8.7	24.9	18.57	63.5	61.8	67	57
27	72	42	57.7	33.3	8	0	81	15	46	0.00	28.57	30.02	N	8.3	25.7	16.90	62.2	61.4	67	57
28	66	36	51.0	31.5	14	0	89	20	53	0.00	29.02	30.49	NW	5.9	15.3	18.22	60.4	59.5	66	54
29	70	36	53.2	33.4	12	0	92	20	53	0.00	28.83	30.29	SSE	8.2	22.8	18.05	59.1	58.6	65	53
30	87	43	62.5	40.9	0	0	76	20	50	0.00	28.46	29.91	SSE	9.3	20.8	17.30	59.7	60.8	68	55
31	87	48	64.1	43.3	0	3	87	16	54	0.00	28.42	29.86	N	7.7	27.5	15.40	61.2	63.5	70	58
	80*	49*	63.7*	44.7*	<- Monthly Averages ->						28.59*	30.04*	SSE*	8.2*	39.0*	16.95*	66.4*	68.3*	73*	64*

Temperature - Highest: 89*
Lowest: 36*

Degree Days - Total HDD: 75*
Total CDD: 60*

Rainfall: Monthly Total: 1.98* in.
Greatest 24 Hr: 0.99* in.

Humidity - Highest: 99*
Lowest: 15*

Number of Days With:
Tmax ≥ 90: 0* — Rainfall ≥ 0.01 inch: 3*
Tmax ≤ 32: 0* — Rainfall ≥ 0.10 inch: 2*
Tmin ≤ 32: 0* — Avg Wind Speed ≥ 10 mph: 7*
Tmin ≤ 0: 0* — Max Wind Speed ≥ 30 mph: 3*

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* Denotes incomplete record

monthly data generated on thursday, december 09, 2010 at 13:26 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — November 2010 — Time Zone: Midnight-Midnight CST

(ALTU) Altus — Nearest City: 3.0 S Altus — County: Jackson

Latitude: 34-35-13 — Longitude: 99-20-17 — Elevation: 1365 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	65	45	54.8	41.4	10	0	85	40	62	0.00	28.67	30.13	N	10.2	24.8	13.15	60.6	61.7	65	58
2	68	45	55.7	39.3	9	0	82	32	56	0.01	28.74	30.20	N	13.6	32.9	16.15	59.5	60.2	64	57
3	75	40	58.0	32.6	7	0	78	21	43	0.00	28.75	30.21	NNE	13.7	35.2	16.63	58.5	59.3	64	54
4	64	34	50.1	24.8	16	0	72	14	42	0.00	28.84	30.31	NNW	11.3	28.9	17.08	57.5	58.7	63	55
5	60	31	44.9	25.5	19	0	79	23	51	0.00	28.80	30.26	SE	5.9	12.4	16.60	55.8	55.8	62	51
6	71	35	52.3	30.9	12	0	79	23	48	0.00	28.78	30.24	SE	9.9	23.2	16.17	56.0	56.3	62	51
7	74	36	55.5	32.5	10	0	87	17	48	0.00	28.71	30.17	SSE	12.1	31.0	16.36	56.4	57.3	62	53
8	77	41	58.1	41.9	6	0	88	31	58	0.00	28.46	29.91	SSE	11.9	25.7	15.29	57.0	58.4	63	54
9	77	48	62.5	48.1	3	0	90	33	62	0.00	28.30	29.75	SSE	14.4	31.9	15.10	58.4	60.4	65	56
10	67	44	54.9	37.5	10	0	80	28	54	0.00	28.48	29.93	SSW	7.6	23.2	15.51	58.5	60.2	65	56
11	77	48	63.3	52.3	3	0	95	40	69	0.00	28.60	30.05	SE	12.7	28.2	11.27	58.8	60.9	65	57
12	65	39	51.5	48.6	13	0	96	80	90	0.56	28.65	30.11	NNW	16.7	54.1	2.50	59.1	59.1	63	53
13	57	33	44.1	35.4	20	0	97	33	75	0.00	28.75	30.21	NW	6.3	14.4	15.39	55.1	52.3	58	48
14	61	35	45.9	36.6	17	0	94	37	73	0.00	28.53	29.98	E	8.2	20.3	14.47	54.5	51.3	56	47
15	50	38	44.1	41.0	21	0	97	77	89	0.16	28.32	29.76	E	8.8	17.5	4.74	54.0	50.5	53	49
16	62	32	45.9	36.2	18	0	100	33	73	0.00	28.36	29.80	SSE	8.3	22.4	15.08	53.0	49.8	55	45
17	56	41	47.9	36.9	17	0	79	54	66	0.00	28.56	30.01	N	19.3	45.4	9.42	52.6	49.4	51	48
18	53	30	40.7	31.7	23	0	97	44	72	0.00	28.88	30.34	SSE	7.2	16.2	14.80	51.5	48.8	54	44
19	68	31	49.7	35.0	15	0	94	30	62	0.00	28.56	30.01	SSE	12.5	28.1	14.82	51.5	49.7	56	44
20	72	42	56.3	42.7	8	0	84	30	63	0.00	28.46	29.90	SSE	11.0	21.6	11.64	52.9	53.0	58	48
21	80	53	64.0	53.0	0	1	96	35	71	0.00	28.38	29.83	S	12.1	29.0	13.36	55.6	57.8	63	54
22	77	48	62.1	41.3	3	0	98	14	55	0.00	28.40	29.84	WSW	10.0	25.3	14.55	56.9	59.2	64	56
23	61	37	48.4	38.2	16	0	93	42	70	0.00	28.54	29.99	NNE	6.7	17.0	13.75	55.0	55.5	60	51
24	80	45	61.6	39.7	2	0	91	10	54	0.00	28.23	29.67	SW	10.5	35.7	11.59	55.6	57.3	62	53
25	46	24	35.9	11.6	30	0	74	21	39	0.00	28.57	30.03	NNE	16.3	41.9	8.98	52.3	52.4	58	48
26	55	17	35.1	16.3	29	0	89	17	53	0.00	28.77	30.23	WSW	6.3	17.7	14.43	48.7	46.9	52	42
27	61	23	41.1	19.4	23	0	83	15	48	0.00	28.65	30.11	SSE	7.7	24.6	14.19	48.6	47.5	53	43
28	64	32	48.4	30.4	17	0	76	34	51	0.00	28.29	29.73	SSE	17.7	37.8	13.59	49.0	48.5	53	44
29	59	35	46.7	29.5	18	0	88	33	54	0.00	28.36	29.80	NNW	12.8	29.8	13.51	50.1	50.9	55	47
30	49	27	36.6	13.5	27	0	65	19	41	0.00	28.79	30.25	NW	12.2	29.5	13.92	47.6	47.3	51	44
	65	37	50.5	34.8	<- Monthly Averages ->						28.57	30.03	SSE	11.1	54.1	13.47	54.7	54.5	59	50

Temperature - Highest: 80
Lowest: 17

Degree Days - Total HDD: 421
Total CDD: 1

Rainfall: Monthly Total: 0.73 in.
Greatest 24 Hr: 0.56 in.

Humidity - Highest: 100
Lowest: 10

Number of Days With:
Tmax ≥ 90: 0 — Rainfall ≥ 0.01 inch: 3
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 2
Tmin ≤ 32: 9 — Avg Wind Speed ≥ 10 mph: 19
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 9

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* Denotes incomplete record

monthly data generated on thursday, december 09, 2010 at 12:27 utc

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Tipton Weather

All Data can be accessed at http://agweather.mesonet.org/index.php/data/section/weather

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MESONET CLIMATOLOGICAL DATA SUMMARY — May 2010 — Time Zone: Midnight-Midnight CST
(TIPT) Tipton — Nearest City: 4.0 S Tipton — County: Tillman
Latitude: 34-26-22 — Longitude: 99-08-15 — Elevation: 1270 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4* SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	67	48	57.9	48.2	7	0	93	42	72	0.06	28.29	29.63	S	5.9	23.5	10.85	63.0	64.6	68	61
2	78	46	60.9	42.0	3	0	93	19	57	0.00	28.30	29.64	SSW	10.0	30.1	28.18	62.4	65.7	78	56
3	70	40	54.8	45.3	10	0	96	41	73	0.00	28.61	29.96	SSE	7.3	24.6	16.27	60.9	62.9	70	58
4	89	46	67.8	45.5	0	3	96	17	53	0.00	28.47	29.82	SSW	12.7	34.1	30.28	61.3	67.0	80	56
5	83	53	69.0	41.7	0	3	78	15	43	0.00	28.50	29.84	NNE	12.2	39.0	30.20	64.7	71.7	83	62
6	91	56	74.6	57.2	0	9	92	30	59	0.00	28.37	29.71	SSE	12.4	30.0	29.57	66.0	74.7	86	65
7	76	51	66.1	41.4	1	0	68	19	44	0.00	28.63	29.98	NNE	17.9	40.8	29.73	68.3	74.5	82	68
8	71	40	58.5	33.5	9	0	84	20	43	0.00	28.92	30.28	ESE	10.2	25.7	23.44	66.3	70.8	81	61
9	61	55	58.2	46.7	7	0	84	48	66	0.11	28.74	30.10	ESE	14.2	29.4	6.58	65.0	67.4	71	63
10	95	53	72.2	50.0	0	9	91	8	55	0.00	28.37	29.71	SE	16.8	44.0	27.30	65.2	70.4	81	62
11	90	45	70.5	57.9	0	2	88	42	66	0.00	28.38	29.73	SSE	10.1	32.1	27.48	65.4	72.6	84	61
12	83	65	74.9	66.9	0	9	94	61	77	0.01	28.35	29.69	SSE	14.0	32.9	10.87	68.3	74.3	78	71
13	69	50	58.7	52.6	6	0	95	64	81	0.19	28.66	30.02	NNE	11.7	38.7	13.94	66.6	67.0	71	63
14	64	57	59.1	57.0	4	0	97	83	93	0.78	28.76	30.12	ENE	10.0	37.0	3.65	65.0	64.0	66	63
15	71	56	62.5	58.5	2	0	97	63	88	0.00	28.71	30.06	N	4.2	12.9	12.83	65.0	65.1	71	61
16	81	57	69.1	61.0	0	4	98	46	78	0.01	28.67	30.02	WSW	4.1	37.7	24.44	67.2	70.1	80	62
17	78	55	66.5	58.9	0	2	98	45	79	0.00	28.71	30.06	N	7.3	18.6	19.14	68.0	69.5	77	64
18	80	59	68.8	60.0	0	4	91	54	75	0.00	28.61	29.96	ESE	11.3	23.0	26.46	69.2	73.8	86	64
19	89	63	74.0	59.6	0	11	96	20	66	0.00	28.35	29.69	SSW	12.0	28.9	25.79	70.3	76.6	87	69
20	84	54	69.6	54.6	0	4	92	33	63	0.00	28.47	29.82	NNW	6.6	18.6	30.34	70.2	77.1	89	67
21	86	58	73.5	63.0	0	7	89	53	71	0.00	28.55	29.90	SE	11.5	24.2	22.88	70.8	77.7	87	69
22	87	69	77.8	67.7	0	13	91	54	73	0.00	28.42	29.76	SSE	16.3	34.3	20.48	71.8	79.1	85	73
23	89	70	78.9	66.6	0	15	92	42	68	0.00	28.47	29.82	SE	16.0	32.4	22.36	72.4	80.3	88	74
24	89	72	78.0	67.0	0	15	90	49	70	0.00	28.50	29.85	SSE	16.8	34.3	18.11	72.8	80.3	87	75
25	86	66	74.9	63.2	0	11	90	44	68	0.00	28.60	29.95	SE	10.5	24.5	21.50	73.0	80.4	90	74
26	88	65	71.8	64.1	0	11	96	38	79	0.18	28.66	30.02	SE	6.6	34.0	13.17	72.6	77.7	84	73
27	93	60	76.8	60.6	0	12	97	27	64	0.00	28.67	30.02	SSE	5.1	14.7	28.66	72.7	78.0	89	69
28	94	65	79.8	61.7	0	14	95	30	59	0.00	28.60	29.95	ESE	6.0	18.3	29.62	74.3	82.6	94	73
29	95	68	81.6	61.7	0	16	92	26	55	0.00	28.48	29.82	SE	8.9	19.1	25.53	75.2	84.0	92	76
30	100	68	83.5	59.8	0	19	85	22	50	0.00	28.47	29.81	ESE	8.2	20.5	29.06	76.5	85.7	95	77
31	97	68	81.9	61.9	0	18	88	24	55	0.00	28.57	29.91	NNE	10.4	27.9	29.18	77.6	87.0	97	79
	83	57	70.1	56.0	<- Monthly Averages ->						28.54	29.89	SSE	10.5	44.0	22.19	68.6	73.9	82	67

Temperature - Highest: 100
Lowest: 40

Degree Days - Total HDD: 50
Total CDD: 211

Rainfall: Monthly Total: 1.34 in.
Greatest 24 Hr: 0.78 in.

Humidity - Highest: 98
Lowest: 8

Number of Days With:
Tmax ≥ 90: 8 — Rainfall ≥ 0.01 inch: 7
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 4
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 20
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 15

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* Denotes incomplete record
monthly data generated on wednesday, august 11, 2010 at 20:09 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — June 2010 — Time Zone: Midnight-Midnight CST

(TIPT) Tipton — Nearest City: 4.0 S Tipton — County: Tillman

Latitude: 34-26-22 — Longitude: 99-08-15 — Elevation: 1270 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4* SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	98	69	84.8	57.0	0	18	70	23	41	0.00	28.49	29.84	SSE	13.2	29.0	29.38	78.1	87.7	96	80
2	98	68	83.3	59.0	0	18	83	24	47	0.00	28.38	29.72	S	11.3	31.1	26.71	78.9	87.8	97	80
3	96	63	80.2	61.5	0	14	95	25	58	0.00	28.42	29.76	SE	7.1	19.4	26.79	79.3	87.3	96	79
4	98*	66*	83.3*	60.9*	0*	17*	89*	26*	51*	0.00*	28.43*	29.77*	SSE*	10.2*	27.7*	27.45*	80.6*	88.4*	98*	79*
5	103	69	86.7	62.2	0	21	78	24	48	0.00	28.39	29.73	S	13.7	29.4	30.08	82.0	89.4	99	80
6	99	74	86.0	67.7	0	22	79	33	57	0.00	28.57	29.92	ESE	11.7	28.3	26.05	83.6	91.4	101	83
7	98	72	85.1	68.4	0	20	91	35	61	0.00	28.58	29.93	SSE	12.7	33.9	22.62	83.6	90.0	97	84
8	99	76	86.7	65.8	0	22	81	29	53	0.00	28.50	29.85	S	15.1	34.0	29.43	84.4	90.7	99	83
9	96	70	83.4	65.7	0	18	88	31	58	0.00	28.55	29.90	SE	10.9	22.2	28.88	85.0	91.1	100	83
10	101	72	84.8	70.0	0	21	97	34	65	0.00	28.43	29.78	SSE	13.8	35.8	21.81	85.1	90.1	98	84
11	97	69	82.9	69.6	0	18	94	39	67	0.21	28.43	29.77	SSE	16.3	33.8	21.71	83.2	86.2	93	80
12	97	76	85.2	67.7	0	21	81	33	58	0.00	28.54	29.89	SSE	17.3	32.7	23.10	81.9	87.0	95	81
13	97	77	85.6	68.5	0	22	81	37	59	0.00	28.55	29.89	SSE	16.3	33.2	17.23	81.5	87.1	94	82
14	92	67	76.2	68.5	0	14	96	50	78	1.41	28.52	29.87	SSE	11.0	32.5	12.81	80.0	82.3	86	77
15	91	67	78.0	65.9	0	14	96	36	70	0.00	28.61	29.97	SE	6.9	19.7	28.34	79.7	80.8	90	74
16	95	73	83.7	67.8	0	19	89	34	62	0.00	28.63	29.98	SSE	12.9	29.0	28.94	82.0	85.6	96	76
17	96	74	84.7	65.1	0	20	82	32	55	0.00	28.57	29.92	S	16.5	32.9	29.80	81.7	87.9	97	79
18	97	75	86.1	67.9	0	21	80	36	57	0.00	28.57	29.91	S	14.2	28.9	29.93	82.3	90.2	100	81
19	99	76	87.4	67.5	0	23	77	32	54	0.00	28.61	29.96	SSE	12.7	32.7	29.04	83.5	92.0	102	83
20	98	77	87.3	65.4	0	22	76	29	51	0.00	28.60	29.95	SSE	14.5	29.3	29.37	84.0	92.8	102	85
21	98	78	87.4	62.6	0	23	66	20	46	0.00	28.58	29.93	SSE	14.2	29.0	28.80	84.3	93.1	102	86
22	100	75	87.7	63.7	0	23	76	24	48	0.00	28.61	29.96	SSE	14.3	30.5	30.61	84.6	93.1	102	85
23	101	74	88.3	63.5	0	23	77	26	47	0.00	28.64	29.99	SSE	10.8	23.5	30.05	85.4	94.1	104	85
24	101	74	87.0	65.2	0	23	92	23	53	0.16	28.68	30.03	SE	7.7	25.8	27.31	85.9	93.0	102	86
25	99	71	84.9	65.4	0	20	90	29	57	0.00	28.62	29.97	SSE	9.2	24.8	27.30	85.5	92.8	102	84
26	101	72	86.8	63.8	0	21	90	27	51	0.00	28.51	29.85	SSE	12.4	28.1	26.87	85.4	92.6	101	85
27	99	72	85.5	63.8	0	20	92	24	52	0.22	28.44	29.78	SSW	14.1	31.6	28.30	85.6	93.3	103	86
28	85	70	76.1	67.3	0	12	93	50	76	0.07	28.58	29.93	NE	8.2	25.3	13.16	82.8	83.2	88	80
29	92	68	80.4	64.7	0	15	93	24	63	0.00	28.68	30.04	ENE	11.1	32.7	27.96	83.0	86.6	97	78
30	92	63	79.6	59.6	0	13	95	28	56	0.00	28.73	30.09	E	9.6	23.4	27.50	82.1	88.0	98	79
	97*	72*	84.2*	65.0*	<- Monthly Averages ->						28.55*	29.90*	SSE*	12.3*	35.8*	26.24*	82.8*	89.2*	98*	82*

Temperature - Highest: 103*
Lowest: 63*

Degree Days - Total HDD: 0*
Total CDD: 581*

Rainfall: Monthly Total: 2.07* in.
Greatest 24 Hr: 1.41* in.

Humidity - Highest: 97*
Lowest: 20*

Number of Days With:
Tmax ≥ 90: 29* — Rainfall ≥ 0.01 inch: 5*
Tmax ≤ 32: 0* — Rainfall ≥ 0.10 inch: 4*
Tmin ≤ 32: 0* — Avg Wind Speed ≥ 10 mph: 24*
Tmin ≤ 0: 0* — Max Wind Speed ≥ 30 mph: 13*

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* Denotes incomplete record

monthly data generated on monday, august 30, 2010 at 13:29 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — July 2010 — Time Zone: Midnight-Midnight CST
(TIPT) Tipton — Nearest City: 4.0 S Tipton — County: Tillman
Latitude: 34-26-22 — Longitude: 99-08-15 — Elevation: 1270 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	88	72	78.9	67.8	0	15	89	49	70	0.03	28.75	30.11	ESE	10.4	24.6	13.92	81.6	85.8	90	83
2	88	73	77.0	71.2	0	16	96	52	83	0.76	28.67	30.02	SE	8.9	25.5	11.58	80.8	83.4	88	80
3	86	73	77.7	71.9	0	15	96	57	84	1.01	28.55	29.90	SSE	12.3	24.6	10.55	79.6	79.2	82	77
4	77	71	74.7	71.9	0	9	96	82	91	0.56	28.50	29.85	SSE	10.4	27.9	6.34	78.4	77.6	79	76
5	85	73	77.8	72.1	0	14	97	65	83	1.40	28.50	29.84	S	10.7	23.5	11.16	77.9	77.7	80	75
6	92	75	81.1	71.2	0	18	92	45	74	0.00	28.56	29.91	ESE	7.9	24.1	19.22	80.1	80.1	86	76
7	90	69	76.1	71.0	0	15	96	53	85	2.87	28.63	29.98	NE	6.9	40.2	17.66	78.6	80.7	91	76
8	87	73	77.0	72.5	0	15	96	62	87	0.04	28.70	30.06	NNE	7.5	25.0	18.02	78.8	80.0	86	76
9	83	71	74.5	71.6	0	12	96	65	91	1.72	28.73	30.09	ESE	5.0	27.6	11.51	79.5	79.2	85	77
10	87	71	77.7	72.6	0	14	97	61	85	0.32	28.67	30.02	SSE	5.4	20.6	21.70	80.6	80.8	88	76
11	94	72	83.1	72.2	0	18	96	49	72	0.35	28.50	29.85	SSW	10.6	25.9	28.77	82.6	83.1	91	77
12	89	72	79.1	72.0	0	15	97	55	80	0.63	28.44	29.78	S	9.8	23.2	19.59	81.5	81.2	85	78
13	96	74	85.1	74.1	0	20	95	49	72	0.00	28.46	29.81	SSE	9.2	21.7	28.23	83.2	84.8	94	77
14	95	77	85.5	73.6	0	21	90	49	69	0.00	28.56	29.91	SSE	12.4	22.3	26.50	84.1	88.1	97	80
15	95	75	85.3	72.1	0	20	87	45	66	0.00	28.62	29.97	S	10.1	23.4	24.86	84.0	89.5	97	82
16	98	74	85.4	71.4	0	21	94	34	67	0.00	28.64	29.99	SW	6.6	18.3	25.79	84.5	90.7	100	83
17	100	73	86.5	67.7	0	21	91	27	58	0.00	28.62	29.97	SSW	6.5	17.9	29.56	85.0	92.3	102	83
18	100	74	87.0	65.3	0	22	79	26	52	0.00	28.60	29.95	S	8.1	20.9	29.54	85.1	93.0	103	84
19	98	75	87.1	67.3	0	22	80	32	55	0.00	28.57	29.92	SSE	10.2	22.3	27.86	85.4	93.4	102	86
20	98	76	87.0	68.2	0	22	79	34	56	0.00	28.60	29.95	S	12.7	23.8	28.10	85.5	93.4	102	86
21	96*	75*	85.5*	64.6*	0*	21*	73*	29*	52*	0.00*	28.66*	30.01*	S *	12.3*	26.9*	23.95*	85.0*	92.8*	100*	86*
22	97	75	86.0	67.1	0	21	79	35	55	0.00	28.62	29.97	S	13.5	28.8	27.54	84.6	92.1	99	85
23	97	77	86.3	68.2	0	22	76	35	57	0.00	28.60	29.95	S	13.9	27.2	25.47	84.7	91.8	99	85
24	97	78	86.9	67.0	0	23	77	30	54	0.00	28.65	30.00	S	11.6	22.7	26.55	85.5	92.8	101	86
25	99	72	84.7	59.5	0	20	84	13	48	0.00	28.69	30.04	SSE	6.4	18.1	28.28	85.9	93.2	102	85
26	96	68	79.9	64.0	0	17	87	28	62	0.24	28.67	30.02	SSW	6.5	53.9	23.63	85.1	90.6	101	84
27	91	68	78.9	66.0	0	15	94	36	68	0.00	28.65	30.00	S	8.8	20.7	26.52	83.4	86.3	95	79
28	92	70	78.9	68.2	0	16	91	45	71	0.00	28.71	30.06	SE	8.3	36.0	20.34	82.9	87.6	95	81
29	94	73	82.8	67.6	0	18	93	38	63	0.00	28.72	30.08	S	10.7	24.4	27.37	83.5	89.1	98	81
30	96	71	84.9	64.6	0	19	74	36	52	0.00	28.61	29.96	SSW	11.1	31.3	27.71	83.9	90.3	99	82
31	103	75	89.4	65.5	0	24	74	26	49	0.00	28.51	29.86	SSE	6.7	17.0	27.55	86.0	93.3	103	85
	93*	73*	82.2*	69.0*	<- Monthly Averages ->						28.61*	29.96*	S *	9.4*	53.9*	22.43*	82.8*	86.9*	94*	81*

Temperature - Highest: 103*
Lowest: 68*

Degree Days - Total HDD: 0*
Total CDD: 560*

Rainfall: Monthly Total: 9.93* in.
Greatest 24 Hr: 2.87* in.

Humidity - Highest: 97*
Lowest: 13*

Number of Days With:
Tmax ≥ 90: 22* — Rainfall ≥ 0.01 inch: 12*
Tmax ≤ 32: 0* — Rainfall ≥ 0.10 inch: 10*
Tmin ≤ 32: 0* — Avg Wind Speed ≥ 10 mph: 15*
Tmin ≤ 0: 0* — Max Wind Speed ≥ 30 mph: 4*

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* Denotes incomplete record
monthly data generated on thursday, september 30, 2010 at 13:29 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — August 2010 — Time Zone: Midnight-Midnight CST

(TIPT) Tipton — Nearest City: 4.0 S Tipton — County: Tillman

Latitude: 34-26-22 — Longitude: 99-08-15 — Elevation: 1270 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4* SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	104	73	90.1	61.2	0	24	77	22	42	0.00	28.51	29.86	SSE	6.9	21.1	28.44	87.2	95.0	104	86
2	105	74	89.9	57.1	0	25	59	17	36	0.00	28.57	29.92	SSW	9.8	23.4	28.92	87.1	94.3	103	86
3	102	74	89.0	59.2	0	23	63	20	39	0.00	28.63	29.98	S	9.1	21.1	28.74	87.3	94.2	103	86
4	102	76	89.7	63.5	0	24	70	25	45	0.00	28.58	29.93	S	9.3	21.2	27.93	87.8	94.4	103	86
5	99	71	85.9	65.9	0	20	88	29	54	0.00	28.58	29.93	N	7.4	33.8	27.22	88.3	94.8	104	87
6	95	76	85.3	68.2	0	20	80	39	58	0.00	28.57	29.92	NNE	8.1	24.8	22.27	88.3	94.3	101	88
7	100	72	86.0	67.4	0	21	89	31	58	0.00	28.51	29.86	SE	6.6	21.0	26.31	88.5	94.4	104	86
8	102	75	89.6	64.9	0	24	80	27	47	0.00	28.49	29.84	SSE	10.3	24.5	24.83	88.7	94.6	102	88
9	102	77	90.2	63.9	0	25	69	24	45	0.00	28.52	29.87	SSE	10.5	27.4	27.16	89.0	94.9	103	88
10	98	73	86.6	65.6	0	21	77	31	52	0.00	28.57	29.92	S	7.7	25.1	22.30	88.6	93.9	101	87
11	103	76	89.0	65.3	0	25	69	24	48	0.00	28.55	29.90	S	7.1	24.1	24.51	89.0	94.4	102	87
12	104	76	90.6	64.4	0	25	78	22	46	0.00	28.48	29.83	S	6.9	27.3	26.97	89.7	95.4	104	88
13	104	79	91.8	61.7	0	27	63	22	39	0.00	28.42	29.76	S	12.2	27.8	26.73	89.9	95.3	103	88
14	105	74	91.0	62.6	0	25	74	21	42	0.00	28.49	29.83	S	9.5	21.8	27.01	90.1	95.3	104	88
15	103	76	86.4	66.9	0	24	86	27	55	0.01	28.62	29.97	NE	8.4	33.6	23.15	90.4	94.8	104	89
16	98	72	81.8	68.6	0	20	93	33	69	0.47	28.66	30.01	ENE	9.7	55.5	20.91	89.1	91.9	101	86
17	90	72	79.6	71.4	0	16	94	55	77	0.62	28.60	29.95	NE	7.7	37.9	18.91	85.6	85.6	92	81
18	92	73	82.0	71.3	0	18	96	40	73	0.00	28.63	29.98	NE	4.5	13.0	27.12	86.9	87.0	96	80
19	98	74	85.1	69.9	0	21	95	29	65	0.00	28.51	29.86	SSE	7.2	18.1	25.41	86.4	88.7	98	81
20	101	77	88.3	67.0	0	24	74	29	52	0.00	28.42	29.77	SW	11.1	27.8	25.23	85.3	90.2	99	83
21	102	75	87.8	66.8	0	23	78	30	52	0.00	28.54	29.88	WSW	7.7	19.1	23.36	85.4	91.4	101	84
22	100	73	86.7	68.2	0	22	89	29	58	0.00	28.61	29.96	NE	5.3	10.7	26.22	86.3	92.7	102	85
23	106	76	90.2	63.6	0	26	77	16	46	0.00	28.54	29.88	E	6.9	16.1	26.36	87.0	94.0	103	86
24	89	75	80.5	64.9	0	17	71	47	59	0.00	28.68	30.03	NNE	16.8	42.2	16.27	85.2	90.2	94	86
25	87	61	75.8	50.3	0	9	68	26	42	0.00	28.82	30.18	NNE	11.7	28.9	25.53	83.1	87.4	96	82
26	90	53	71.9	48.0	0	6	91	18	50	0.00	28.79	30.15	N	4.4	15.8	27.17	82.0	84.9	95	77
27	94	59	78.5	53.2	0	12	83	23	46	0.00	28.65	30.00	SE	8.2	20.8	25.19	82.3	85.6	95	77
28	96	62	80.9	49.7	0	14	76	18	38	0.00	28.55	29.90	SE	11.8	26.2	25.64	82.8	86.5	96	79
29	99	67	84.2	54.0	0	18	60	20	38	0.00	28.53	29.88	SE	13.1	29.0	24.58	83.0	87.0	96	79
30	98	75	86.2	65.0	0	22	77	30	52	0.00	28.58	29.93	S	14.5	30.8	22.00	84.2	88.4	96	82
31	99	76	85.5	67.2	0	23	78	33	56	0.00	28.59	29.94	SSE	14.9	33.8	18.60	84.5	88.7	95	84
	99	72	85.7	63.1	<- Monthly Averages ->						28.57	29.92	S	9.2	55.5	24.87	86.7	91.6	100	84

Temperature - Highest: 106
Lowest: 53

Degree Days - Total HDD: 0
Total CDD: 640

Rainfall: Monthly Total: 1.10 in.
Greatest 24 Hr: 0.62 in.

Humidity - Highest: 96
Lowest: 16

Number of Days With:
Tmax ≥ 90: 29 — Rainfall ≥ 0.01 inch: 3
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 2
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 10
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 7

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* Denotes incomplete record

monthly data generated on sunday, october 31, 2010 at 13:29 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — September 2010 — Time Zone: Midnight-Midnight CST
(TIPT) Tipton — Nearest City: 4.0 S Tipton — County: Tillman
Latitude: 34-26-22 — Longitude: 99-08-15 — Elevation: 1270 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4* SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	100	71	82.6	67.4	0	20	91	29	65	0.29	28.51	29.86	SE	12.0	38.1	23.62	84.8	88.6	97	83
2	96	68	78.6	67.3	0	17	98	38	72	1.62	28.56	29.91	SSW	10.1	60.3	23.67	82.5	83.7	93	78
3	80	60	69.4	53.4	0	5	92	31	60	0.00	28.85	30.21	NNE	9.5	22.6	25.85	79.0	76.1	81	72
4	83	55	69.1	53.1	0	4	97	29	62	0.00	28.75	30.10	SE	6.4	16.3	25.72	77.8	74.2	83	67
5	94	61	77.1	57.5	0	12	82	26	55	0.00	28.50	29.84	SSE	14.1	30.9	25.21	77.3	76.1	86	68
6	95	69	81.5	60.5	0	17	79	21	53	0.00	28.46	29.80	S	15.2	32.3	25.07	77.7	79.9	88	73
7	85	71	77.5	68.8	0	13	94	54	76	0.00	28.65	30.01	SSE	11.7	24.3	15.35	78.7	81.2	87	76
8	73	70	71.6	69.8	0	7	96	86	94	1.37	28.50	29.85	E	15.9	36.1	4.82	77.2	77.3	81	75
9	89	68	77.9	70.1	0	13	96	55	78	0.00	28.45	29.80	SSE	9.1	20.6	23.67	78.4	78.2	85	73
10	95	75	82.8	71.8	0	20	88	45	71	0.00	28.40	29.74	S	13.0	25.4	21.62	80.3	80.2	86	76
11	87	66	77.0	69.6	0	11	97	56	79	0.00	28.58	29.93	ENE	9.5	25.1	20.55	80.2	79.5	87	74
12	90	70	78.2	68.6	0	15	91	49	74	0.00	28.71	30.07	ESE	7.1	22.3	18.69	80.6	81.5	89	75
13	93	71	80.4	70.6	0	17	95	40	75	0.00	28.68	30.03	SE	10.4	30.9	19.51	81.2	83.9	92	78
14	95	71	83.1	68.1	0	18	93	36	64	0.00	28.61	29.96	SSE	10.2	20.7	22.54	81.5	85.2	94	79
15	94	73	83.0	68.8	0	18	93	38	65	0.00	28.56	29.91	S	12.6	26.2	22.94	81.8	86.1	94	80
16	92	71	79.4	68.5	0	16	90	41	70	0.01	28.61	29.96	E	11.0	63.1	20.09	82.1	85.5	94	80
17	89	69	79.1	67.4	0	14	95	41	69	0.00	28.65	30.00	SE	6.6	16.6	16.61	81.5	84.1	91	79
18	92	71	81.3	65.3	0	17	91	32	62	0.00	28.69	30.05	SSE	9.5	21.2	21.41	81.7	84.7	93	79
19	91	66	79.2	64.1	0	14	92	36	63	0.00	28.73	30.08	SSE	8.5	25.1	22.05	81.3	84.0	92	78
20	90	68	78.7	62.3	0	14	88	32	61	0.00	28.62	29.97	S	11.2	29.2	21.75	81.1	83.7	91	78
21	89	70	78.5	66.1	0	14	88	46	67	0.00	28.53	29.87	S	13.8	33.1	15.28	80.5	83.8	90	79
22	90	71	79.6	65.8	0	15	89	39	65	0.00	28.56	29.90	SSE	15.6	30.0	16.25	80.4	83.3	89	79
23	87	74	77.4	68.2	0	15	86	47	74	0.07	28.54	29.89	SSE	15.3	35.3	8.40	79.5	81.3	85	79
24	85	69	75.6	70.0	0	12	96	60	84	0.05	28.72	30.08	ESE	9.3	19.7	12.52	79.1	79.6	86	76
25	86	67	74.6	66.4	0	11	97	42	78	0.00	28.72	30.08	E	4.9	16.4	15.53	79.1	80.1	87	76
26	76	53	65.3	48.0	1	0	87	28	57	0.00	28.75	30.10	NNE	12.9	32.0	22.68	77.2	76.6	83	71
27	78	45	62.0	46.9	4	0	96	32	62	0.00	28.68	30.04	S	4.8	16.8	22.17	74.8	73.1	82	66
28	89	51	68.6	49.5	0	5	91	24	57	0.00	28.57	29.92	NNE	6.7	21.3	21.40	75.2	74.2	83	68
29	88	51	69.2	50.3	0	4	89	26	57	0.00	28.52	29.86	SE	4.6	11.8	21.48	75.3	74.6	84	68
30	86	54	69.3	51.5	0	5	92	30	58	0.00	28.69	30.04	NNE	8.8	23.0	20.24	75.7	75.0	83	69
	88	66	76.2	63.2	<- Monthly Averages ->						28.61	29.96	SSE	10.3	63.1	19.89	79.4	80.5	88	75

Temperature - Highest: 100
Lowest: 45

Degree Days - Total HDD: 4
Total CDD: 365

Rainfall: Monthly Total: 3.41 in.
Greatest 24 Hr: 1.62 in.

Humidity - Highest: 98
Lowest: 21

Number of Days With:
Tmax ≥ 90: 14 — Rainfall ≥ 0.01 inch: 6
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 3
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 16
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 11

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* Denotes incomplete record
monthly data generated on tuesday, november 30, 2010 at 13:30 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — October 2010 — Time Zone: Midnight-Midnight CST
(TIPT) Tipton — Nearest City: 4.0 S Tipton — County: Tillman
Latitude: 34-26-22 — Longitude: 99-08-15 — Elevation: 1270 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	83	54	69.0	45.7	0	4	79	25	46	0.00	28.78	30.14	ESE	6.0	17.4	19.80	75.6	75.3	84	70
2	84	50	67.1	44.0	0	2	87	24	47	0.00	28.83	30.19	NNE	8.3	24.6	20.11	75.2	74.3	82	69
3	66	47	56.2	37.3	9	0	74	29	51	0.00	28.96	30.32	E	6.5	17.0	11.59	72.6	70.1	74	67
4	76	44	59.9	38.7	5	0	82	24	50	0.00	28.91	30.27	SE	9.5	19.0	20.28	71.2	68.9	79	62
5	80	48	63.6	39.7	1	0	77	20	46	0.00	28.92	30.28	SE	11.2	22.8	19.89	71.9	70.6	80	64
6	84	48	66.6	43.6	0	1	80	23	47	0.00	28.89	30.25	S	8.2	20.5	19.64	72.0	71.1	80	64
7	89	50	70.1	44.5	0	4	80	20	45	0.00	28.81	30.17	SSE	6.7	17.0	19.70	72.6	72.2	82	65
8	87	50	69.6	41.9	0	4	81	17	41	0.00	28.72	30.08	S	7.7	20.8	20.20	72.8	72.4	82	66
9	88	49	69.9	44.6	0	3	77	21	44	0.00	28.65	30.00	S	8.0	23.5	19.52	72.7	72.2	81	66
10	88	58	70.9	52.6	0	8	91	26	57	0.04	28.54	29.89	S	11.5	30.0	16.28	73.0	73.4	82	67
11	83	50	64.0	49.0	0	2	99	22	66	0.00	28.56	29.91	NW	7.0	24.5	17.93	72.0	70.6	77	66
12	84	49	65.2	45.7	0	2	90	22	56	0.00	28.73	30.08	NNW	9.2	25.0	18.02	70.6	69.0	76	63
13	76	47	62.4	39.5	4	0	83	16	48	0.00	28.96	30.32	N	10.7	26.9	19.12	71.0	69.0	76	65
14	79	35	58.8	34.6	8	0	87	18	47	0.00	28.92	30.28	SSE	5.9	14.8	19.32	68.8	65.9	75	59
15	88	47	67.8	41.5	0	2	71	20	43	0.00	28.74	30.09	SSE	7.5	20.1	18.76	69.7	68.1	78	61
16	86	51	69.1	42.3	0	4	68	19	41	0.00	28.72	30.07	S	8.9	20.8	17.36	70.7	69.7	78	63
17	86	51	67.5	43.3	0	3	72	20	45	0.00	28.67	30.02	SSE	9.0	22.6	15.48	70.3	70.0	78	64
18	84	56	69.8	51.7	0	5	81	32	56	0.00	28.56	29.91	SSE	8.6	21.1	13.45	70.8	70.5	76	66
19	78	56	65.3	53.7	0	2	87	45	68	0.00	28.64	29.99	NNE	7.5	22.3	16.54	71.5	70.8	78	66
20	81*	45*	61.7*	47.7*	2*	0*	96*	25*	66*	0.00*	28.71*	30.06*	SE *	4.6*	10.5*	13.04*	70.6*	68.9*	77*	63*
21	86	53	69.4	54.6	0	5	96	33	62	0.76	28.62	29.97	SE	12.0	48.8	10.44	70.1	69.3	75	64
22	70	55	63.1	60.1	3	0	97	80	90	2.26	28.53	29.88	ESE	13.2	33.9	6.39	64.7	65.1	69	61
23	66	59	62.8	59.2	2	0	95	76	88	0.00	28.47	29.82	S	14.7	35.2	5.38	65.3	63.9	65	61
24	77	54	63.9	53.7	0	1	91	39	72	0.00	28.41	29.75	SW	7.3	20.2	16.16	65.3	63.5	71	58
25	81	55	66.3	48.7	0	3	81	32	56	0.00	28.08	29.41	SSW	14.7	37.7	10.63	64.6	61.6	65	58
26	72	45	58.5	39.8	7	0	91	19	56	0.00	28.36	29.70	WNW	8.1	23.1	17.94	63.4	59.9	66	55
27	72	42	57.2	36.2	8	0	88	16	51	0.00	28.67	30.02	N	8.5	27.1	16.25	61.9	59.3	68	54
28	66	37	50.7	33.3	14	0	89	20	59	0.00	29.12	30.49	NNE	5.0	17.9	17.64	59.6	57.6	67	51
29	69	36	52.9	34.0	12	0	96	21	56	0.00	28.94	30.30	S	8.7	24.1	17.33	58.4	57.2	66	50
30	84	43	62.4	40.5	1	0	77	24	48	0.00	28.57	29.92	SSE	10.8	21.3	16.64	59.7	60.5	70	53
31	88	48	65.4	43.4	0	3	87	15	51	0.00	28.52	29.86	N	7.2	25.3	15.78	62.0	64.3	73	57
	80*	49*	64.1*	44.7*	<- Monthly Averages ->						28.69*	30.05*	S *	8.8*	48.8*	16.34*	68.7*	67.6*	75*	62*

Temperature - Highest: 89*
Lowest: 35*

Degree Days - Total HDD: 75*
Total CDD: 58*

Rainfall: Monthly Total: 3.06* in.
Greatest 24 Hr: 2.26* in.

Humidity - Highest: 99*
Lowest: 15*

Number of Days With:
Tmax ≥ 90: 0* — Rainfall ≥ 0.01 inch: 3*
Tmax ≤ 32: 0* — Rainfall ≥ 0.10 inch: 2*
Tmin ≤ 32: 0* — Avg Wind Speed ≥ 10 mph: 8*
Tmin ≤ 0: 0* — Max Wind Speed ≥ 30 mph: 5*

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* Denotes incomplete record
monthly data generated on friday, december 10, 2010 at 13:29 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — November 2010 — Time Zone: Midnight-Midnight CST

(TIPT) Tipton — Nearest City: 4.0 S Tipton — County: Tillman

Latitude: 34-26-22 — Longitude: 99-08-15 — Elevation: 1270 feet

DAY	TEMPERATURE (F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4* SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	65	46	56.1	40.8	9	0	80	39	58	0.00	28.77	30.12	N	11.4	26.0	12.30	60.7	61.9	66	57
2	67	48	55.9	40.6	8	0	72	39	57	0.00	28.84	30.19	N	15.5	37.1	15.28	59.8	60.5	66	56
3	74	38	57.2	32.2	9	0	81	21	43	0.00	28.85	30.21	N	13.1	33.8	16.00	58.8	59.0	66	53
4	63	35	49.3	25.7	16	0	81	16	45	0.00	28.94	30.31	NNW	10.2	29.1	16.33	57.9	57.5	64	53
5	60	28	44.4	26.4	21	0	90	22	54	0.00	28.91	30.27	SE	5.6	12.4	15.95	56.2	54.6	63	48
6	71	36	52.9	30.9	12	0	80	23	47	0.00	28.89	30.25	SE	11.2	22.1	15.49	56.7	55.7	64	49
7	73	39	55.2	33.3	9	0	82	21	49	0.00	28.82	30.18	SSE	12.6	30.2	15.71	57.4	57.0	64	51
8	75	41	58.3	43.1	7	0	89	32	60	0.00	28.57	29.92	SSE	12.4	26.0	14.56	58.3	58.3	65	52
9	76	50	62.7	48.9	2	0	88	36	62	0.00	28.42	29.76	SSE	16.6	30.3	14.58	60.2	60.9	67	56
10	68	41	55.4	38.7	11	0	88	27	56	0.00	28.58	29.93	SSW	7.6	27.5	14.99	60.2	60.5	67	55
11	77	52	64.6	52.8	0	0	96	42	68	0.00	28.71	30.06	SE	15.1	29.0	11.72	61.1	62.1	68	57
12	66	39	52.3	49.2	13	0	96	77	89	0.51	28.79	30.15	NNW	15.9	47.9	2.53	60.1	58.5	64	50
13	57	34	43.8	36.5	20	0	97	36	78	0.00	28.87	30.24	NW	6.1	17.4	14.84	54.8	50.7	58	45
14	61	34	46.3	36.9	17	0	95	36	72	0.00	28.64	29.99	E	8.1	19.6	14.51	53.7	49.9	57	44
15	50	38	44.9	41.2	21	0	97	75	87	0.21	28.42	29.76	E	9.4	21.1	4.95	53.3	49.4	53	47
16	61	32	46.1	37.2	19	0	100	39	74	0.01	28.47	29.82	SSE	8.4	19.5	14.57	52.4	48.8	56	43
17	56	41	48.0	36.9	16	0	77	57	66	0.00	28.66	30.01	N	17.6	43.7	10.04	51.9	48.1	52	45
18	52	31	40.7	31.6	24	0	97	43	72	0.00	28.98	30.35	SSE	6.2	17.1	14.33	50.7	46.7	54	41
19	69	34	50.3	35.0	14	0	88	30	59	0.00	28.67	30.03	SSE	11.9	25.9	14.28	50.8	47.3	55	41
20	71	42	57.1	43.4	9	0	85	34	62	0.00	28.57	29.92	SSE	10.7	20.8	11.62	53.3	52.0	58	46
21	78	52	65.2	54.7	0	0	98	39	71	0.00	28.49	29.84	S	12.8	26.2	12.09	57.2	58.2	65	53
22	76	44	62.2	45.5	5	0	96	16	62	0.00	28.50	29.85	S	9.4	21.7	13.57	58.9	60.2	66	56
23	62	34	48.4	38.7	17	0	96	37	72	0.00	28.64	29.99	N	5.6	18.5	13.05	55.8	54.9	61	49
24	79	47	62.5	48.0	2	0	93	25	63	0.00	28.34	29.68	SW	12.3	36.8	10.76	57.6	58.3	65	54
25	47	24	35.8	13.2	30	0	83	20	44	0.00	28.67	30.03	NNE	15.3	39.8	7.80	52.8	51.1	57	45
26	54	18	35.1	18.0	29	0	92	19	57	0.00	28.88	30.24	W	5.3	14.8	13.97	48.3	44.9	52	39
27	62	24	41.2	18.8	22	0	89	13	48	0.00	28.76	30.12	SSE	7.5	21.6	13.62	48.6	45.7	53	40
28	63	33	49.1	31.1	17	0	75	36	51	0.00	28.41	29.75	SSE	18.0	35.1	13.07	NA	NA	NA	NA
29	59	32	48.0	30.6	19	0	88	32	54	0.00	28.47	29.81	NW	11.4	30.4	12.84	NA	NA	NA	NA
30	49	25	36.5	15.1	28	0	78	21	44	0.00	28.90	30.26	NW	11.0	27.7	13.39	NA	NA	NA	NA
	65	37	50.8	35.8	<- Monthly Averages ->						28.68	30.03	SSE	11.1	47.9	12.96	55.8*	54.5*	61*	49*

Temperature - Highest: 79
Lowest: 18

Degree Days - Total HDD: 424
Total CDD: 0

Rainfall: Monthly Total: 0.73 in.
Greatest 24 Hr: 0.51 in.

Humidity - Highest: 100
Lowest: 13

Number of Days With:
Tmax ≥ 90: 0 — Rainfall ≥ 0.01 inch: 3
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 2
Tmin ≤ 32: 8 — Avg Wind Speed ≥ 10 mph: 19
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 10

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monthly data generated on friday, december 10, 2010 at 12:24 utc

* Denotes incomplete record

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