OSU SW Research & Extension Center

2009 Southwest Oklahoma Entomology Report

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OKLAHOMA STATE UNIVERSITY EXTENSION

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2009State 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.

Chemtura
Monsanto Company
Cotton Incorporated State Support Committee
Delta and Pine Land Company
Dupont
Dow AgroSciences
Crop Protection Services, Inc.
OSU Entomology Department
Bayer CropScience
Cotton Growers Cooperative Cotton
Oklahoma Cotton Council
Stoneville Pedigreed Seed Company
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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Acknowledgements

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

J.C. Banks, Extension Cotton Specialist
Shane Osborne, Associate Extension Specialist
Karen Coggeshall, Extension Secretary

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

Larry Bull, Foreman
Rocky Thacker, Experiment Station Superintendent
Toby Kelley, Assistant Experiment Station Superintendent
Connie Bookout, Experiment Station Secretary
Lynn Halford, Field Assistant
Kyle Sebree, Field Assistant

Don Hooper, Senior Station Superintendent South Central Research Station and his staff.
Terry White, Cooperator

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

Entomology Activities

Insect monitoring is a key component in a successful IPM program. Trapping activities in 2009 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 Cotton Outlook 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 2009

A total of 190,000 acres were planted and harvested in 2009. The state's production average as projected was 830 lbs. of lint per acre. Insect pressure was light in most areas.

Ongoing Research Projects

Several Bt cotton trials were conducted in 2009 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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Weather

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, Manchester, 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 2009.

Bollworm

Altus	Hollis	Manchester	Tipton
553	609	9	1,628

Tobacco Budworm

Altus	Hollis	Manchester	Tipton
14	39	1	26

Beet Armyworm

Altus	Hollis	Manchester	Tipton
15	4	2	5

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 2,879 moths were captured between the weeks of June 1 and October 1. Bollworms comprised 97.3% of the total catch in 2009 (Figure 1).

Figure 1. Species composition of moths trapped across Oklahoma, Summer 2009.

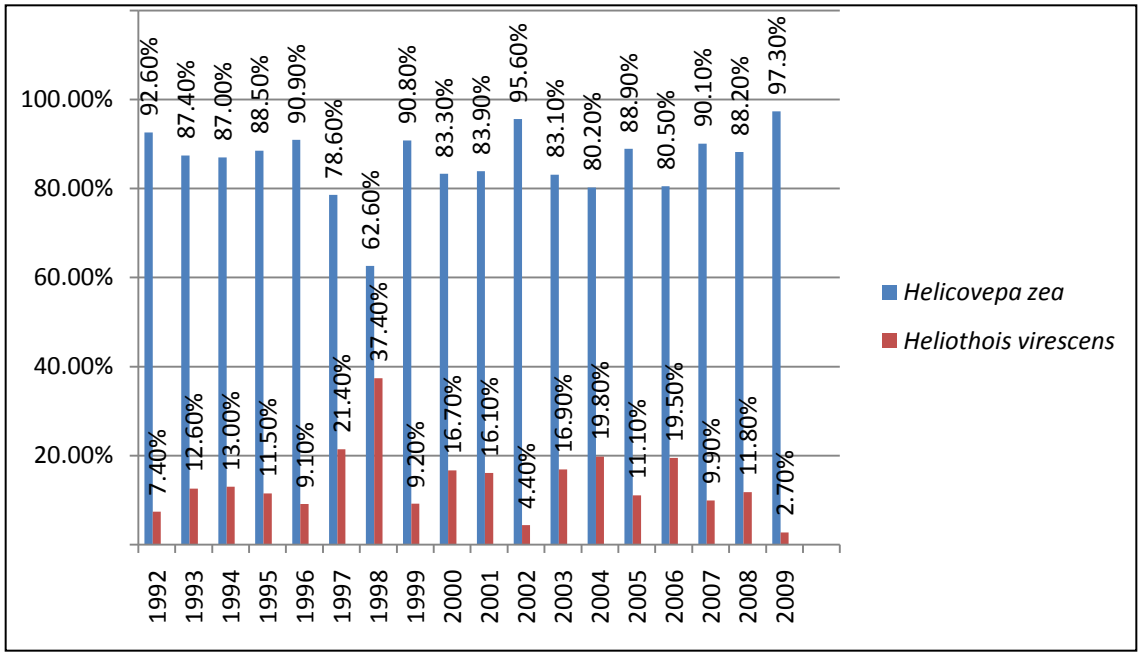
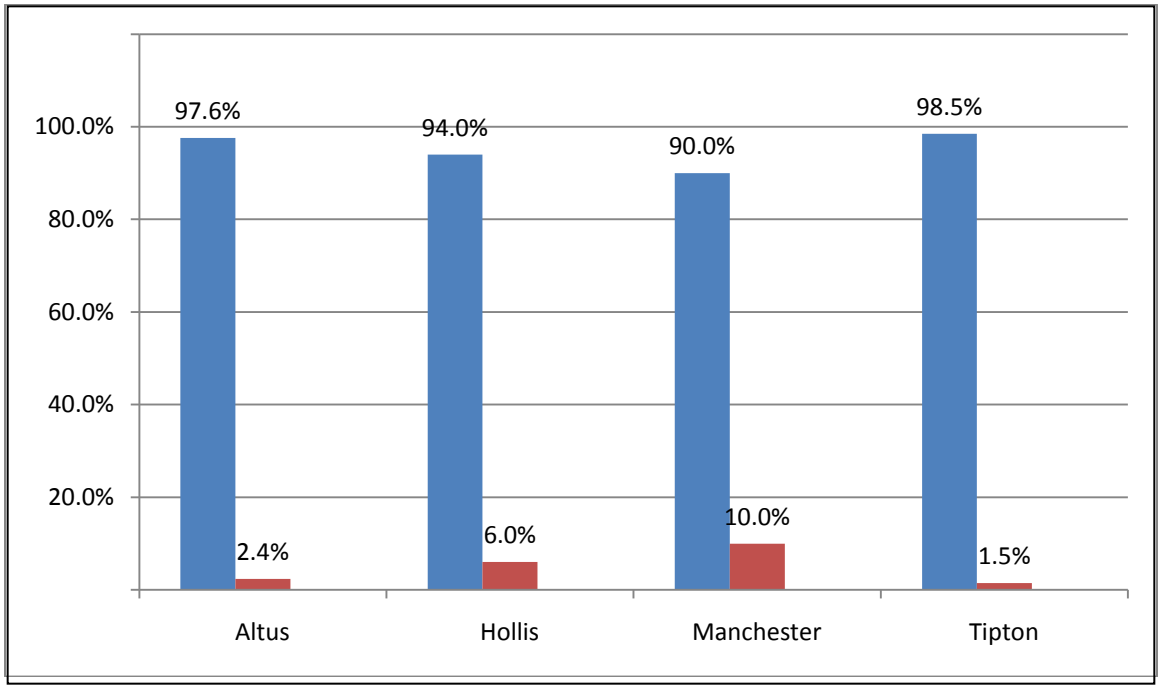


Figure 2. Species composition of trapped moths by production region, 2009.



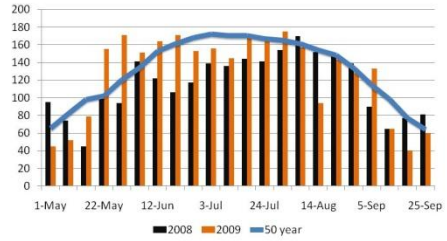
Helicoverpa zea - Corn Earworm moth (Bollworm)
Heliothis virescens - Tobacco Budworm moth

Growing Degree Days Accumulation For Select Locations Across Oklahoma, Summer 2009.

ALTUS

Growing Degree Days (GDD)

	50 year	2008	2009
May	469.9	400.6	278.5
June	616.9	711.7	659.9
July	678.3	705.4	704.8
August	761.1	627.4	674.5
September	354.7	369.9	372.1
Total	**2,880.9**	**2,815.0**	**2,689.8**



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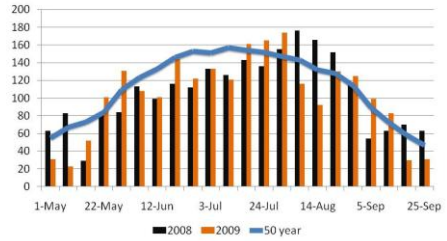
Growing Degree Days (GDD)

	50 year	2008	2009
May	389.7	265.6	201.5
June	556.8	517.3	588.8
July	615.2	640.4	562.5
August	665.8	578.8	509.3
September	266.5	282.0	285.6
Total	**2,494.0**	**2,284.1**	**2,147.7**



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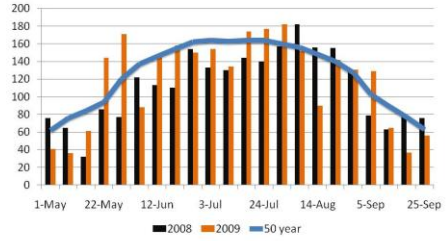
Growing Degree Days (GDD)

	50 year	2008	2009
May	437.9	353.7	211.1
June	598.8	590.5	616.4
July	654.7	702.7	691.7
August	731.1	630.6	680.1
September	332.7	351.3	357.9
Total	**2,755.2**	**2,628.8**	**2,557.2**



Bollgard II™ Variety Demonstration 2009

Cooperator: Terry White
Planting Date: May 22, 2009
Seeding Rate: 13.5 lbs/acre

Location: Harmon County
Heat units accumulated: 2,655.4
Six Irrigations

Pesticide Usage:

Roundup WeatherMax (20 oz / acre) over-the-top application June 10

Roundup WeatherMax (20 oz / acre) over-the-top application + Vydate 0.18 lbs ai/acre + Pix 5 oz / acre June 30

Harvest Aid applied:

Ethephon (32 oz / acre) + Ginstar (7 oz / acre) October 10
Ethephon (16 oz / acre) October 20

Table 1. Stand Densities and Lint Production White's Farm - Summer 2009.

Variety	Stand density plants/acre		Lint Yield October 27
	June 4	June 13	
DP 0920 B2F	49,000	44,000	1,687
FM 9180 B2F	49,000	46,000	1,639
DP 0935 B2F	47,000	47,000	1,614
DP 0912 B2F	49,000	50,000	1,617
FM 9170 B2F	47,000	49,000	1,600
DP 0949 B2F	48,000	49,000	1,557
ST 5288 B2F	47,000	45,000	1,556
ST 4288 B2F	46,000	51,000	1,515
FM 9160 B2F	48,000	43,000	1,510
FM 1740 B2F	51,000	47,000	1,302
DP 0924 B2F	46,000	46,000	1,204

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Altus Cotton

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Aeris Seed-Applied System Nematodes and Early Season Pests at Altus

Objectives:
Show the benefits of seed treatment and the addition of the GB product to performance on cotton.

Conclusions:
The Aeris and GB 126 increased the early emergence in treatments 2, 3, & 4, while the number 5 treatment had the best initial stand. At 14 DAP the best stand was with the Aeris, Baytan, Allegiance, Vortex, Trilex (trt #2). Damage ratings at 28 DAP were least with trt 2, 4, & 5.. The vigor was best at 28 DAP with trt 2 & 5. Yields were similar with Trt 5 a being better than the uct although there was no significant difference in yields. Less damage and earlier maturity are the advantagesof the treatments.

CROP AND INSECT DESCRIPTION

Insect 1.FRANOC Western Flower Thrips
Crop 1:GOSHI **Cotton** FM 1740 **Variety:** FM 1740 **Planting Date:** 5/21/09
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 74 F **Soil Moisture:** NORMAL **Emergence Date:** 5/28/09

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		2008

SOIL DESCRIPTION

Texture: CLAY LOAM
Soil Name: Tillman Clay Loam
Fertility Level: Excellent

Planting Conditions

Application Date:	5/21/09
Time of Day:	PM
Application Method:	Infurrow
Application Timing:	ATPLAN
Applic. Placement:	INFURR
Air Temp., Unit:	89 F
% Relative Humidity:	34
Wind Velocity, Unit:	8 MPH
Dew Presence (Y/N):	n
Water Hardness:	na
Soil Temp., Unit:	74 F
Soil Moisture:	EXCESSIVE
% Cloud Cover:	0

Insect Code Rating Data Type Rating Unit Rating Date				Stand Count Plants /acre 5/28/09	Stand Count Plants /acre 6/4/09	Damage Rating Damage rating 6/18/09	Yield lint lb/Acre 11/13/09
Trt No.	Treatment Name	Rate	Rate Unit				
1	Gaucho Grande	12.78	mg ai/seed	10750 a	29500 a	2 a	1293.3 a
2	Aeris Seed Applied	0.75	mg ai/seed	12000 a	31250 a	1 a	1209.3 a
3	GB 126 Gaucho Grande	5.0 0.75	mg ai/seed mg ai/seed	10750 a	28750 a	1 a	1276.7 a
4	GB 126 Aeris Seed Applied	5.0 0.75	mg ai/seed mg ai/seed	13250 a	28750 a	1 a	1267.4 a
5	Cruiser Avicta	0.3 0.1	mg ai/seed mg ai/seed	16750 a	28750 a	1 a	1205.9 a
LSD (P=.05)				5654.2	4807.0	0.7	0.7
Standard Deviation				3669.7	3119.8	0.5	0.4
CV				28.9	10.61	39.53	22.54
Bartlett's X2				12700.0	29400.0	1.2	1.9
P(Bartlett's X2)				3.073	4.996	1.148	0.095
				0.546	0.288	0.284	0.999
Replicate F							
Replicate Prob(F)				1.074	4.699	1.185	3.273
Treatment F				0.3967	0.0216	0.3565	0.0589
Treatment Prob(F)				1.842	0.483	1.889	7.909

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.

Comparison of Bollgard II Flex Flex Cotton Under Irrigated Conditions at Altus

Objectives:
Test the effectiveness of B2F - Bt technology on Heliothine larval pests.

Conclusions:
All varieties tested provided protection against the bollworm complex. At 7 DAP the FM 1740 B2R, DP 0949 B2R and FM 1740 B2R had the best numerical stands. Final stands 14 DAP were best with FM 1740 B2R, FM 9170 B2R, DP 0912 B2R and DP 0935 B2R had the best final numerical stands. Vigor at 28 DAP was best with FM 9180 B2R, FM 1740 B2R, ST 4288 B2R, and DP0935 B2R had the best vigor ratings. Numerical yields were best with FM 1740 B2R, FM 9170 B2R, DP 0912 B2R, and DP0924 B2R.

CROP AND INSECT DESCRIPTION

Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 74 F **Soil Moisture:** NORMAL **Emergence Date:** 5/28/09

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		2008

SOIL DESCRIPTION

Texture: CLAY LOAM
Soil Name: Tillman Clay Loam
Fertility Level: Excellent

Planting Conditions

Application Date:	5/21/09
Time of Day:	PM
Application Method:	Infurrow
Application Timing:	ATPLAN
Applic. Placement:	INFURR
Air Temp., Unit:	89 F
% Relative Humidity:	34
Wind Velocity, Unit:	8 MPH
Dew Presence (Y/N):	n
Water Hardness:	na
Soil Temp., Unit:	74 F
Soil Moisture:	EXCESSIVE
% Cloud Cover:	0

Insect Code Rating Data Type Rating Unit Rating Date	Stand Count Plants /acre 5/28/09	Stand Count Plants /acre 6/4/09	Vigor Rating Plants 1=best 6/3/08	Yield Lint lbs/acre 11/13/09
Trt Treatment No. Name				
1 FM 9160 B2F	4000 a	28750 a	2 a	1523.0 ab
2 FM 9180 B2F	6000 a	27500 a	2 a	1361.8 b
3 FM 1740 B2F	7500 a	29000 a	2 a	1902.9 a
4 FM 9170 B2F	7000 a	29500 a	2 a	1451.8 b
5 ST 4288 B2F	5750 a	26250 a	1 a	1524.1 ab
6 ST 5288 B2F	10000 a	26000 a	2 a	1591.1 ab
7 DP 0912 B2F	3500 a	29000 a	2 a	1624.4 ab
8 DP 0920 B2F	5750 a	25500 a	3 a	1531.8 ab
9 DP 0924 B2F	4000 a	27750 a	2 a	1721.1 ab
10 DP 0935 B2F	4500 a	29750 a	2 a	1564.4 ab
11 DP 0949 B2F	8250 a	27500 a	3 a	1303.6 b
LSD (P=.05)	5274.2	5493.1	1.2	267.44
Standard Deviation	3652.7	3804.3	0.8	185.22
CV	60.65	13.65	39.46	11.91
Bartlett's X2	6022.73	27863.64	2.05	1554.53
P(Bartlett's X2)	5.118	5.719	5.104	5.185
	0.883	0.838	0.884	0.878
Replicate F				
Replicate Prob(F)	1.723	1.815	0.233	5.666
Treatment F	0.1833	0.1656	0.8730	0.0034
Treatment Prob(F)	1.227	0.595	1.828	3.132

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.

Bayer Temik/Southern Crops/Various Pests/Local Positioning

Objectives:
Show the benefits of seed treatment to performance on cotton.

Conclusions:
TheStand at 7 DAP was best with the Avicta+Temik treatment. At 14 DAP the best stands were with Aeris st as well as Temik @ 5 lbs/a. Damage ratings resulted in the lowest damage in the Temik @ % lb and the Temik @ 5 lb+Avicta. Plant vigor at 28 DAP was best with the Aeris + 3.5 lb of Temik and with Temik @ 5 lb/a. Yields werw numerically best with Aeris + Temik at 3.5 lb/a and also Temik @ 5 lb / acre

CROP AND INSECT DESCRIPTION

Insect 1.FRANOC Western Flower Thrips
Crop 1:GOSHI **Cotton** FM 1740 **Variety:** FM 1740 **Planting Date:** 5/21/09
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 74 F **Soil Moisture:** NORMAL **Emergence Date:** 5/28/09

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		2008

SOIL DESCRIPTION

Texture: CLAY LOAM
Soil Name: Tillman Clay Loam
Fertility Level: Excellent

Planting Conditions

Application Date:	5/21/09
Time of Day:	PM
Application Method:	Infurrow
Application Timing:	ATPLAN
Applic. Placement:	INFURR
Air Temp., Unit:	89 F
% Relative Humidity:	34
Wind Velocity, Unit:	8 MPH
Dew Presence (Y/N):	n
Water Hardness:	na
Soil Temp., Unit:	74 F
Soil Moisture:	EXCESSIVE
% Cloud Cover:	0

Pest Code Rating Date Rating Data Type Rating Unit			Stand Count 5/28/09 Plants /acre	Stand Count 6/4/09 Plants /acre	Damage Rating 6/18/09 1=none	Vigor Rating 6/18/09 1=Best	Yield 11/13/09 Lint Lbs/acre	
Trt No. Treatment Name	Rate	Rate Unit						
1 Untreated			6750 a	23250 a	3 a	4 a	974.7	a
2 AERIS SEED APPLIED SYSTEM			7000 a	28500 a	2 ab	3 ab	822.3	a
3 AVICTA COMPLETE PAK - AVICTA			7500 a	26250 a	2 ab	3 ab	950.1	a
4 AERIS SEED APPLIED SYSTEM TEMIK 15G	3.5	Lbs/acre	6000 a	25750 a	2 bc	2 b	1028.7	a
5 AVICTA COMPLETE PAK – AVICTA TEMIK 15G	3.5	Lbs/acre	8500 a	26250 a	1 bc	1 b		
6 TEMIK 15G	3.5	Lbs/acre	9000 a	30750 a	1 c	2 b	932.8	a
LSD (P=.05)			5730.7	6636.5	0.8	1.1	187.46	
Standard Deviation			3803.1	4404.2	0.6	0.7	124.41	
CV			50.99	16.44	27.89	31.78	13.09	
Grand Mean			7458.33	26791.67	2.0	2.29	950.26	
Bartlett's X2			6.447	4.657	2.087	7.419	3.815	
P(Bartlett's X2)			0.265	0.459	0.555	0.191	0.576	
Replicate F			3.775	3.158	0.357	1.754	2.599	
Replicate Prob(F)			0.0336	0.0557	0.7847	0.1991	0.0907	
Treatment F			0.349	1.353	8.357	6.110	1.305	
Treatment Prob(F)			0.8752	0.2962	0.0006	0.0028	0.3138	

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.

2009 Cotton At-Planting Insecticide Field Evaluation

Objectives:
Show the benefits of seed treatment to performance on cotton.

Conclusions:
TheStand at 7 DAP was best with the Avicta+Temik treatment. At 14 DAP the best stands were with Aeris st as well as Temik @ 5 lbs/a. Damage ratings resulted in the lowest damage in the Temik @ % lb and the Temik @ 5 lb+Avicta. Plant vigor at 28 DAP was best with the Aeris + 3.5 lb of Temik and with Temik @ 5 lb/a. Yields werw numerically best with Aeris + Temik at 3.5 lb/a and also Temik @ 5 lb / acre

CROP AND INSECT DESCRIPTION

Insect 1.FRANOC Western Flower Thrips
Crop 1:GOSHI **Cotton** FM 1740 **Variety:** FM 1740 **Planting Date:** 5/21/09
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 74 F **Soil Moisture:** NORMAL **Emergence Date:** 5/28/09

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		2008

SOIL DESCRIPTION

Texture: CLAY LOAM
Soil Name: Tillman Clay Loam
Fertility Level: Excellent

Planting Conditions

Application Date:	5/21/09
Time of Day:	PM
Application Method:	Infurrow
Application Timing:	ATPLAN
Applic. Placement:	INFURR
Air Temp., Unit:	89 F
% Relative Humidity:	34
Wind Velocity, Unit:	8 MPH
Dew Presence (Y/N):	n
Water Hardness:	na
Soil Temp., Unit:	74 F
Soil Moisture:	EXCESSIVE
% Cloud Cover:	0

Part Rated Rating Date Rating Data Type Rating Unit				Stand Count 5/28/09 Plants /acre	Stand Count 6/4/09 Plants /acre	Damage Rating 6/18/09 1=none	Vigor Rating 6/18/09 1=Best	Yield 11/13/09 Lint Lbs/acre
Trt No.	Treatment Name	Rate	Rate Unit					
1	BAYTAN 30	0.5	fl oz/cwt	10000 a	31250 a	2 a	3 a	1119 a
	VORTEX FL	0.08	fl oz/cwt					
	ALLEGIANCE FL	0.32	fl oz/cwt					
	PRECISE S FINISHER 1005	1	fl oz/cwt					
	PRO-IZED RED COLORANT	0.1	fl oz/cwt					
2	BAYTAN 30	0.5	fl oz/cwt	11250 a	27750 a	2 b	2 bc	1376 a
	VORTEX FL	0.08	fl oz/cwt					
	ALLEGIANCE FL	0.32	fl oz/cwt					
	GAUCHO GRANDE	8.92	fl oz/cwt					
	PRECISE S FINISHER 1005	1	fl oz/cwt					
	PRO-IZED RED COLORANT	0.1	fl oz/cwt					
3	BAYTAN 30	0.5	fl oz/cwt	13250 a	29500 a	2 b	2 b	1437 a
	VORTEX FL	0.08	fl oz/cwt					
	ALLEGIANCE FL	0.32	fl oz/cwt					
	CRUISER	8.92	fl oz/cwt					
	PRECISE S FINISHER 1005	1	fl oz/cwt					
	PRO-IZED RED COLORANT	0.1	fl oz/cwt					
4	BAYTAN 30	0.5	fl oz/cwt	11000 a	32000 a	1 b	1 c	1396 a
	VORTEX FL	0.08	fl oz/cwt					
	ALLEGIANCE FL	0.32	fl oz/cwt					
	PRECISE S FINISHER 1005	1	fl oz/cwt					
	PRO-IZED RED COLORANT	0.1	fl oz/cwt					
	Temik	3.5	lb/a					
LSD (P=.05)				4746.3	4103.9	0.5	0.7	188.1
Standard Deviation				2967.4	2565.8	0.3	0.4	117.6
CV				26.09	8.52	21.99	22.99	8.83
Grand Mean				11375.0	30125.0	1.56	1.81	1332.05
Bartlett's X2				5.128	1.951	0.074	0.737	1.829
P(Bartlett's X2)				0.163	0.583	0.963	0.692	0.609
Replicate F				3.114	22.241	4.765	4.200	1.680
Replicate Prob(F)				0.0811	0.0002	0.0296	0.0408	0.2400
Treatment F				0.842	2.190	9.000	12.840	6.002
Treatment Prob(F)				0.5044	0.1589	0.0045	0.0013	0.0157

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 Grain Sorgum

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Aphids, Chinch Bugs, Wireworms, and Fireants on Grain Sorghum Nipsit – Valent 2009

Objectives:
Determine Nipsit Inside performance with additive components against insect pests of grain sorghum. Are enhancements contributing to greater efficacy and field performance as compared to the commercial standards in the market? Carry to yield to assess benefits in value added components vs Nipsit Inside alone or in competative standards.

Conclusions:

Crop Description

Crop 1: SORVU Sorghum vulgare Shattercane
BBCH Scale: BGRM **Planting Date:** 21/Apr/2009
Planting Method: SEEDED **Rate, Unit:** 60000 S/A
Depth, Unit: 1.0 IN
Row Spacing, Unit: 40 IN **Spacing Within Row, Unit:** 40 IN
Seed Bed: MEDIUM **Soil Temperature, Unit:** 77
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

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	21/Apr/2009	Bicep II Mangum	3.1		F	1.5	QT/A

Description Rating Date Rating Unit Crop Stage					Plants acre 15/May/2009 PLANT 2nd Tru	Plants acre 28/May/2009 PLANT 5th	Yield 11/Aug/2009 BU harvest
Trt No.	Type	Treatment Name	Rate	Rate Unit			
1	FUNG	Maxim	0.080	fl oz/cwt	43500 a	48000 a	20.2 a
	FUNG	APRON XL	0.32	fl oz/cwt			
	SDTR	Consep III	0.64	fl oz/cwt			
2	INSE	Cruiser	5.1	fl oz/cwt	46500 a	39750 a	19.0 a
	FUNG	Maxim	0.080	fl oz/cwt			
	FUNG	APRON XL	0.32	fl oz/cwt			
	SDTR	Consep III	0.64	fl oz/cwt			
3	INSE	Poncho	5.1	fl oz/cwt	42000 a	43500 a	15.6 a
	FUNG	Maxim	0.080	fl oz/cwt			
	FUNG	APRON XL	0.32	fl oz/cwt			
	SDTR	Consep III	0.64	fl oz/cwt			
4	INSE	Nipsit Inside	5.1	fl oz/cwt	40500 a	39750 a	18.6 a
	FUNG	Maxim	0.080	fl oz/cwt			
	FUNG	APRON XL	0.32	fl oz/cwt			
	SDTR	Consep III	0.64	fl oz/cwt			
5	INSE	Nipsit Inside	5.1	fl oz/cwt	33750 a	42000 a	17.6 a
	FUNG	V-10240	17.5	g ai/100000 seed			
	SDTR	Concep III	0.64	fl oz/cwt			
6	INSE	Nipsit Inside	5.1	fl oz/cwt	36000 a	45750 a	22.7 a
	FUNG	V-10230	17.5	g ai/100000 seed			
	SDTR	Concep III	0.64	fl oz/cwt			
7	INSE	Nipsit Inside	5.1	fl oz/cwt	36750 a	47250 a	27.0 a
	FUNG	V-10286	42.5	g ai/100000 seed			
	SDTR	Concep III	0.64	fl oz/cwt			
8	INSE	Nipsit Inside	5.1	fl oz/cwt	40500 a	43500 a	24.4 a
	FUNG	V-10282	42.5	g ai/100000 seed			
	SDTR	Concep III	0.64	fl oz/cwt			
LSD (P=.05)					11438.3	9166.1	8.38
Standard Deviation					7777.0	6232.1	5.61
CV					19.47	14.27	27.22
Grand Mean					39937.5	43687.5	20.63
Bartlett's X2					13.993	12.78	4.2
P(Bartlett's X2)					0.051	0.078	0.756
Replicate F					3.391	3.737	6.369
Replicate Prob(F)					0.0370	0.0269	0.0043
Treatment F					1.177	1.022	1.811
Treatment Prob(F)					0.3570	0.4448	0.1500

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.

Grain Sorghum Poncho Cruiser Seed Treatment - 2009

Objectives:
Compare the efficacy of Poncho Vs Cruiser on green bugs, corn leaf aphids, wireworms, false woreworms, chinch bugs and other grain sorghum insects and show the benefits compared to the non-insecticide treatment.

Conclusions:

Crop Description

Crop 1: SORVU Sorghum vulgare Shattercane
BBCH Scale: BGRM **Planting Date:** 21/Apr/2009
Planting Method: SEEDED **Rate, Unit:** 60000 S/A
Depth, Unit: 1.0 IN
Row Spacing, Unit: 40 IN **Spacing Within Row, Unit:** 40 IN
Seed Bed: MEDIUM **Soil Temperature, Unit:** 77
Soil Moisture: NORMAL

Site and Design

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

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	21/Apr/2009	Bicep II Mangum	3.1		F	1.5	QT/A

Description					Plants acre	Plants acre
Rating Date					15/May/2009	28/May/2009
Rating Unit					PLANT	PLANT
Crop Stage					2nd Tru	5th
Trt No.	Type	Treatment Name	Rate	Rate Unit	1	2
1	FUNG	Vortex	5.02	ml/unit	42000 a	48750 a
	FUNG	Allegiance	22.18	ml/unit		
	SDTR	Concep III	1.9	ml/unit		
2	INSE	Poncho	153.78	ml/unit	40500 a	48000 a
	FUNG	Vortex	5.02	ml/unit		
	FUNG	Allegiance	22.18	ml/unit		
	SDTR	Concep III	1.9	ml/unit		
3	INSE	Cruiser	153.78	ml/unit	37500 a	48750 a
	FUNG	Vortex	5.02	ml/unit		
	FUNG	Allegiance	22.18	ml/unit		
	SDTR	Concep III	1.9	ml/unit		
LSD (P=.05)					10666.2	7289.8
Standard Deviation					6164.4	4213.1
CV					15.41	8.69
Grand Mean					40000.0	48500.0
Bartlett's X2					1.555	0.278
P(Bartlett's X2)					0.46	0.87
Replicate F					1.632	1.634
Replicate Prob(F)					0.2788	0.2784
Treatment F					0.553	0.042
Treatment Prob(F)					0.6022	0.9589

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.

Bayer Poncho, Vortex, CSI Safener/Sorghum/Sales Promotion - 2009

Conclusions:

Crop Description

Crop 1: SORVU Sorghum vulgare Shattercane
Variety: variety A
BBCH Scale: BGRM **Planting Date:** 21/Apr/2009
Planting Method: SEEDED **Rate, Unit:** 60000 S/A
Depth, Unit: 1.0 IN
Row Spacing, Unit: 40 IN **Spacing Within Row, Unit:** 40 IN
Seed Bed: MEDIUM **Soil Temperature, Unit:** 77 F
Soil Moisture: NORMAL

Site and Design

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

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	21/Apr/2009	Bicep II Mangum	3.1		F	1.5	QT/A

Rating Date				15/May/2009	20/May/2009	28/May/2009	3/Jun/2009
Rating Unit				PLANT	1-5	PLANT	1-5
Collection Basis Unit				PLANT	PLANT	PLANT	PLANT
Crop Stage				2nd Tru		5th Tru	
Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4
1	VORTEX FL	0.08555		29250 a	2 b	32250 b	1 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		46500 a	3 a	50250 a	4 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	MAXIM	0.0799		48750 a	3 a	54750 a	5 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)				18494.7	1.3	13624.3	1.2
Standard Deviation				10688.8	0.7	7874.0	0.7
CV				25.76	27.0	17.21	20.62
Grand Mean				41500.0	2.71	45750.0	3.33
Bartlett's X2				8.903	2.522	3.139	0.941
P(Bartlett's X2)				0.012*	0.112	0.208	0.625
Replicate F				1.059	2.013	0.528	0.471
Replicate Prob(F)				0.4333	0.2137	0.6791	0.7138
Treatment F				3.985	8.221	9.145	28.765
Treatment Prob(F)				0.0792	0.0191	0.0151	0.0008

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.

Bayer Poncho, Vortex, CSI Safener/Sorghum/Sales Promotion - 2009 Degree

Conclusions:
No yields were taken due to poor growth conditions.

Crop Description

Crop 1: SORVU Sorghum vulgare Shattercane
BBCH Scale: BGRM **Planting Date:** 21/Apr/2009
Planting Method: SEEDED **Rate, Unit:** 60000 S/A
Depth, Unit: 1.0 IN
Row Spacing, Unit: 40 IN **Spacing Within Row, Unit:** 40 IN
Seed Bed: MEDIUM **Soil Temperature, Unit:** 77 F
Soil Moisture: NORMAL

Site and Design

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

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	SORVU BGRM
Stage Scale Used:	BBCH

Description				Plants acre		Plants acre	
Rating Date				15/May/2009	20/May/2009	28/May/2009	3/Jun/2009
Rating Data Type				COUPLA	VIGOR	COUPLA	VIGOR
Rating Unit				PLANT		PLANT	
Sample Size Unit				Plant	PLANT	Plant	PLANT
Crop Stage				2nd Tru	3rd true	5th Tru	3rd true
Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4
1	VORTEX FL	0.08555		18000 a	1 b	6750 b	1 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		29250 a	2 a	40500 a	3 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	MAXIM	0.0799		27750 a	2 a	31500 a	4 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)				30181.0	0.5	15257.0	1.5
Standard Deviation				17442.8	0.3	8817.6	0.9
CV				69.77	14.74	33.59	34.64
Grand Mean				25000.0	1.88	26250.0	2.5
Bartlett's X2				3.843	1.514	4.499	2.139
P(Bartlett's X2)				0.146	0.469	0.105	0.144
Replicate F				1.446	7.545	4.666	0.444
Replicate Prob(F)				0.3198	0.0185	0.0520	0.7300
Treatment F				0.491	15.545	15.714	10.333
Treatment Prob(F)				0.6349	0.0042	0.0041	0.0114

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.

Bayer Poncho, Vortex, CSI Safener/Sorghum/Sales Promotion – 2009 1A

Conclusions:
Plant stands 24 DAP were best in the 1789 and Concep III treatments.Vigor at 29 DAP and 43 DAP were very similar with the treated plots and very poor in the untreated. The final stands were 32K 50K and 54 K for the Utc, , 1789 and concep III respectively.

NO YIELDS WERE TAKEN IN THIS STUDY AS IT DID NOT WEATHER THE DRY WEATHER WELL AND DID NOT YIELD ENOUGH TO HARVEST.

Crop Description

Crop 1: SORVU Sorghum vulgare Shattercane
BBCH Scale: BGRM **Planting Date:** 21/Apr/2009
Planting Method: SEEDED **Rate, Unit:** 60000 S/A
Depth, Unit: 1.0 IN
Row Spacing, Unit: 40 IN **Spacing Within Row, Unit:** 40 IN
Seed Bed: MEDIUM **Soil Temperature, Unit:** 77 C
Soil Moisture: NORMAL **Emergence Date:** 30/Apr/2009

Site and Design

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

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	21/Apr/2009	Bicep II Mangum	3.1		F	1.5	QT/A

Comment: Bicep Magnum applied immediately following planting.

Description				Plants acre		Plants acre	
Rating Date				15/May/2009	20/May/2009	28/May/2009	3/Jun/2009
Rating Data Type				COUPLA	VIGOR	COUPLA	VIGOR
Rating Unit				PLANT	1-5	PLANT	1-5
Sample Size				1	1	1	1
Sample Size Unit				Plant	PLANT	Plant	PLANT
Crop Stage				2nd Tru		5th Tru	
Crop Stage Scale					BBCH		BBCH
Assessed By				jerry g	terry p	jerry g	terry p
Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4
1	VORTEX FL	0.08555		29250 a	2 b	32250 b	1 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		46500 a	3 a	50250 a	4 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	MAXIM	0.0799		48750 a	3 a	54750 a	5 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)				18494.7	1.3	13624.3	1.2
Standard Deviation				10688.8	0.7	7874.0	0.7
CV				25.76	27.0	17.21	20.62
Grand Mean				41500.0	2.71	45750.0	3.33
Bartlett's X2				8.903	2.522	3.139	0.941
P(Bartlett's X2)				0.012*	0.112	0.208	0.625
Replicate F				1.059	2.013	0.528	0.471
Replicate Prob(F)				0.4333	0.2137	0.6791	0.7138
Treatment F				3.985	8.221	9.145	28.765
Treatment Prob(F)				0.0792	0.0191	0.0151	0.0008

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.

Bayer Poncho, Vortex, CSI Safener/Sorghum/Sales Promotion - 2009

Conclusions:

Crop Description

Crop 1: SORVU Sorghum vulgare Shattercane
BBCH Scale: BGRM **Planting Date:** 21/Apr/2009
Planting Method: SEEDED **Rate, Unit:** 60000 S/A
Depth, Unit: 1.0 IN
Row Spacing, Unit: 40 IN **Spacing Within Row, Unit:** 40 IN
Seed Bed: MEDIUM **Soil Temperature, Unit:** 77
Soil Moisture: NORMAL

Site and Design

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

Description				Plants acre		Plants acre	
Rating Date				15/May/2009	20/May/2009	28/May/2009	3/Jun/2009
Rating Data Type				COUPLA	VIGOR	COUPLA	VIGOR
Rating Unit				PLANT	PLANT	PLANT	PLANT
Crop Stage				2nd Tru	3 rd	5th	3 rd
Assessed By				jerry g	terry p	jerry g	terry p
Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4
1	VORTEX FL	0.08555		24750 a	2 a	30750 a	3 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		21000 a	3 a	25500 a	4 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	MAXIM	0.0799		36750 a	3 a	28500 a	4 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)				28418.4	0.6	23003.8	2.2
Standard Deviation				16424.1	0.4	13294.7	1.3
CV				59.72	14.73	47.06	38.41
Grand Mean				27500.0	2.41	28250.0	3.33
Bartlett's X2				2.911	0.209	0.071	2.286
P(Bartlett's X2)				0.233	0.901	0.965	0.319
Replicate F				0.374	6.099	1.306	0.136
Replicate Prob(F)				0.7750	0.0297	0.3562	0.9352
Treatment F				1.004	4.974	0.157	0.661
Treatment Prob(F)				0.4207	0.0533	0.8581	0.5502

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.

Chickasha Cotton

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Aeris Seed-Applied System Nematodes and Early Season Pests at Chickasha

Objectives:
Show the benefits of seed treatment and the addition of the GB product to performance on cotton.

Conclusions:
The Aeris and GB 126 increased the early emergence in treatments 2, 3, & 4, while the number 5 treatment had the best initial stand. At 14 DAP the best stand was with the Aeris, Baytan, Allegiance, Vortex, Trilex (trt #2). Damage ratings at 28 DAP were least with trt 2, 4, & 5.. The vigor was best at 28 DAP with trt 2 & 5. Yields were similar with Trt 5 a being better than the uct although there was no significant difference in yields. Less damage and earlier maturity are the advantagesof the treatments.

CROP AND INSECT DESCRIPTION

Insect 1.FRANOC Western Flower Thrips
Crop 1:GOSHI **Cotton** FM 1740 **Variety:** FM 1740 **Planting Date:** 5/21/09
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 68 F **Soil Moisture:** NORMAL **Emergence Date:** 5/28/09

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		2008

SOIL DESCRIPTION

Texture: Sandy Loan
Fertility Level: Excellent

Planting Conditions

Application Date:	5/21/09
Time of Day:	AM
Application Method:	Infurrow
Application Timing:	ATPLAN
Applic. Placement:	INFURR
Air Temp., Unit:	71 F
% Relative Humidity:	69
Wind Velocity, Unit:	4 MPH
Dew Presence (Y/N):	n
Water Hardness:	na
Soil Temp., Unit:	68 F
Soil Moisture:	EXCESSIVE
% Cloud Cover:	0

Insect Code Rating Data Type Rating Unit Rating Date				Stand Count Plants /acre 5/28/09		Stand Count Plants /acre 6/4/09		Damage Rating Damage rating 6/17/09		Yield lint lb/Acre 12/14/09	
Trt No.	Treatment Name	Rate	Rate Unit								
1	Gaucho Grande	12.78	mg ai/seed	9500	a	40250	a	4	a	741.1	a
2	Aeris Seed Applied	0.75	mg ai/seed	10500	a	34000	a	3	ab	999.1	a
3	GB 126 Gaucho Grande	5.0 0.75	mg ai/seed mg ai/seed	10250	a	37750	a	3	bc	989.0	a
4	GB 126 Aeris Seed Applied	5.0 0.75	mg ai/seed mg ai/seed	11500	a	35500	a	3	bc	967.9	a
5	Cruiser Avicta	0.3 0.1	mg ai/seed mg ai/seed	8000	a	36000	a	2	c	1203.5	a
LSD (P=.05)				6768.9		9273.6		0.7		0.7	
Standard Deviation				4393.2		6018.7		0.4		0.4	
CV				44.15		16.4		16.26		22.54	
Bartlett's X2				9950.0		36700.0		2.75		1.9	
P(Bartlett's X2)				3.024		2.385		0.795		0.095	
				0.554		0.665		0.939		0.999	
Replicate F											
Replicate Prob(F)				2.662		1.047		5.583		3.273	
Treatment F				0.0954		0.4072		0.0124		0.0589	
Treatment Prob(F)				0.352		0.633		7.500		7.909	

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.

Comparison of Bollgard II Flex Cotton Under Dryland Conditions at Chickasha

Objectives:
Test the effectiveness of B2F - Bt technology on Heliothine larval pests.

Conclusions:
Initial stands were best 7 DAP with FM 9170 B2R and DP 0924 B2R. At 14 DAP the best stands were with DP 0924B2R and FM 9160 B2R. Damage was rated as less with ST 4288B2R, DP0912 B2R and DP 0920 after 27 DAP. Vigor was best with ST 4288 B2R, DP0912 B2R and DP0935 B2R. Yields were best with FM 9170 B2R, FM 1740 B2R and DP 0935 B2R.

CROP AND INSECT DESCRIPTION

Insect 1.FRANOC Western Flower Thrips
Crop 1:GOSHI **Cotton** FM 1740 **Variety:** FM 1740 **Planting Date:** 5/21/09
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 68 F **Soil Moisture:** NORMAL **Emergence Date:** 5/28/09

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		2008

SOIL DESCRIPTION

Texture: Sandy Loan
Fertility Level: Excellent

Planting Conditions

Application Date:	5/21/09
Time of Day:	AM
Application Method:	Infurrow
Application Timing:	ATPLAN
Applic. Placement:	INFURR
Air Temp., Unit:	71 F
% Relative Humidity:	69
Wind Velocity, Unit:	4 MPH
Dew Presence (Y/N):	n
Water Hardness:	na
Soil Temp., Unit:	68 F
Soil Moisture:	EXCESSIVE
% Cloud Cover:	0

Insect Code Rating Data Type Rating Unit Rating Date	Stand Count Plants /acre 5/28/09	Stand Count Plants /acre 6/4/09	Vigor Rating Plants 1=best 6/17/09	Yield Lint lbs/acre 12/14/09
Trt Treatment No. Name				
1 FM 9160 B2F	4250 a	32500 a	3 a	967.6 a
2 FM 9180 B2F	4000 a	31000 a	3 a	878.4 a
3 FM 1740 B2F	4250 a	31500 a	3 a	1254.3 a
4 FM 9170 B2F	8500 a	29250 a	3 a	1205.9 a
5 ST 4288 B2F	3750 a	25250 a	2 a	1013.4 a
6 ST 5288 B2F	6750 a	28500 a	3 a	954.4 a
7 DP 0912 B2F	3000 a	28500 a	3 a	1181.8 a
8 DP 0920 B2F	3000 a	28000 a	3 a	1187.7 a
9 DP 0924 B2F	9250 a	32750 a	3 a	1064.0 a
10 DP 0935 B2F	3750 a	32250 a	3 a	1111.8 a
11 DP 0949 B2F	7250 a	27500 a	3 a	794.9 a
LSD (P=.05)	5274.2	7461.4	10079.2	0.8
Standard Deviation	3652.7	5167.5	6980.5	0.6
CV	60.65	98.43	23.48	19.4
Bartlett's X2	6022.73	5250.0	29727.28	2.89
P(Bartlett's X2)	5.118	22.13	9.328	2.637
	0.883	0.014*	0.501	0.955
Replicate F				
Replicate Prob(F)	1.723	0.664	1.670	1.425
Treatment F	0.1833	0.5810	0.1944	0.2549
Treatment Prob(F)	1.227	0.764	0.486	1.174

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.

Bayer Temik/Southern Crops/Various Pests/Local Positioning

Objectives:
Show the benefits of seed treatment to performance on cotton.

Conclusions:
Initial stands 7 DAP were best with Aeris and Aeris plus Temik 3.5 lb/a. Final stands at 14 DAP were best with Avicta and Avicta plus Temik 3.5 lb/a. The least damage was with the Temik 3.5 lb/a at 27 DAP. The best vigor was with Temik 3.5 lb/a at 27 DAP. The Aeris seed Treatment plus the Temik at 3.5 lb/a had the best yield.

CROP AND INSECT DESCRIPTION

Insect 1.FRANOC Western Flower Thrips
Crop 1:GOSHI **Cotton** FM 1740 **Variety:** FM 1740 **Planting Date:** 5/21/09
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 68 F **Soil Moisture:** NORMAL **Emergence Date:** 5/28/09

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		2008

SOIL DESCRIPTION

Texture: Sandy Loan
Fertility Level: Excellent

Planting Conditions

Application Date:	5/21/09
Time of Day:	AM
Application Method:	Infurrow
Application Timing:	ATPLAN
Applic. Placement:	INFURR
Air Temp., Unit:	71 F
% Relative Humidity:	69
Wind Velocity, Unit:	4 MPH
Dew Presence (Y/N):	n
Water Hardness:	na
Soil Temp., Unit:	68 F
Soil Moisture:	EXCESSIVE
% Cloud Cover:	0

Pest Code Rating Date Rating Data Type Rating Unit			Stand Count 5/28/09 Plants /acre	Stand Count 6/4/09 Plants /acre	Damage Rating 6/18/09 1=none	Vigor Rating 6/18/09 1=Best	Yield 12/14/09 Lint Lbs/acre	
Trt No. Treatment Name	Rate	Rate Unit						
1 Untreated			6000 a	27750 a	4 a	4 a	914.5	a
2 AERIS SEED APPLIED SYSTEM			8500 a	33500 a	3 ab	3 ab	893.3	a
3 AVICTA COMPLETE PAK - AVICTA			5000 a	34500 a	4 a	3 ab	719.8	a
4 AERIS SEED APPLIED SYSTEM TEMIK 15G	3.5	Lbs/acre	7750 a	29500 a	3 ab	2 bc	1177.9	a
5 AVICTA COMPLETE PAK – AVICTA TEMIK 15G	3.5	Lbs/acre	7250 a	36500 a	3 ab	3 b	1036.8	a
6 TEMIK 15G	3.5	Lbs/acre	5250 a	24750 a	2 b	1 c	707.5	a
LSD (P=.05)			5730.7	6636.5	0.8	6003.8	10135.6	
Standard Deviation			3803.1	4404.2	0.6	3984.3	6726.4	
CV			50.99	16.44	27.89	60.14	21.64	
Grand Mean			7458.33	26791.67	2.0	6625.0	31083.34	
Bartlett's X2			6.447	4.657	2.087	3.608	1.608	
P(Bartlett's X2)			0.265	0.459	0.555	0.607	0.90	
Replicate F			3.775	3.158	0.357	5.273	0.846	
Replicate Prob(F)			0.0336	0.0557	0.7847	0.0110	0.4899	
Treatment F			0.349	1.353	8.357	0.509	1.778	
Treatment Prob(F)			0.8752	0.2962	0.0006	0.7655	0.1779	

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.

2009 Cotton At-Planting Insecticide Field Evaluation

Objectives:
Show the benefits of seed treatment to performance on cotton.

Conclusions:
The 7 DAP stand was best with the Temik 3.5 lb/a treatment. At 14 DAP the untreated had a slightly better stand numerically. The lowest damage was with the Temik treatment and theBest vigor was shown with the Temik treatment also. TEMIK 3.5 lb/a also had the best yield.

CROP AND INSECT DESCRIPTION

Insect 1.FRANOC Western Flower Thrips
Crop 1:GOSHI **Cotton** FM 1740 **Variety:** FM 1740 **Planting Date:** 5/21/09
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 68 F **Soil Moisture:** NORMAL **Emergence Date:** 5/28/09

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		2008

SOIL DESCRIPTION

Texture: Sandy Loan
Fertility Level: Excellent

Planting Conditions

Application Date:	5/21/09
Time of Day:	AM
Application Method:	Infurrow
Application Timing:	ATPLAN
Applic. Placement:	INFURR
Air Temp., Unit:	71 F
% Relative Humidity:	69
Wind Velocity, Unit:	4 MPH
Dew Presence (Y/N):	n
Water Hardness:	na
Soil Temp., Unit:	68 F
Soil Moisture:	EXCESSIVE
% Cloud Cover:	0

Part Rated Rating Date Rating Data Type Rating Unit				Stand Count 5/28/09 Plants /acre	Stand Count 6/4/09 Plants /acre	Damage Rating 6/18/09 1=none	Vigor Rating 6/18/09 1=Best	Yield 11/13/09 Lint Lbs/acre
Trt No.	Treatment Name	Rate	Rate Unit					
1	BAYTAN 30	0.5	fl oz/cwt	7000 a	36500 a	4 a	5 a	741.1 a
	VORTEX FL	0.08	fl oz/cwt					
	ALLEGIANCE FL	0.32	fl oz/cwt					
	PRECISE S FINISHER 1005	1	fl oz/cwt					
	PRO-IZED RED COLORANT	0.1	fl oz/cwt					
2	BAYTAN 30	0.5	fl oz/cwt	7500 a	34750 a	3 b	3 b	999.1 a
	VORTEX FL	0.08	fl oz/cwt					
	ALLEGIANCE FL	0.32	fl oz/cwt					
	GAUCHO GRANDE	8.92	fl oz/cwt					
	PRECISE S FINISHER 1005	1	fl oz/cwt					
	PRO-IZED RED COLORANT	0.1	fl oz/cwt					
3	BAYTAN 30	0.5	fl oz/cwt	7250 a	32500 a	3 b	2 c	967.9 a
	VORTEX FL	0.08	fl oz/cwt					
	ALLEGIANCE FL	0.32	fl oz/cwt					
	CRUISER	8.92	fl oz/cwt					
	PRECISE S FINISHER 1005	1	fl oz/cwt					
	PRO-IZED RED COLORANT	0.1	fl oz/cwt					
4	BAYTAN 30	0.5	fl oz/cwt	8500 a	36000 a	2 b	2 c	1203.5 a
	VORTEX FL	0.08	fl oz/cwt					
	ALLEGIANCE FL	0.32	fl oz/cwt					
	PRECISE S FINISHER 1005	1	fl oz/cwt					
	PRO-IZED RED COLORANT	0.1	fl oz/cwt					
	Temik	3.5	lb/a					
LSD (P=.05)				3157.0	11898.7	0.9	0.5	461.29
Standard Deviation				1973.8	7439.1	0.5	0.3	288.40
CV				26.1	21.29	18.16	11.11	27.57
Grand Mean				7562.5	34937.5	2.94	3.0	1045.91
Bartlett's X2				0.764	4.307	0.088	0.0	0.98
P(Bartlett's X2)				0.858	0.23	0.993	0.001*	0.806
Replicate F				2.198	0.305	0.805	1.500	1.372
Replicate Prob(F)				0.1579	0.8210	0.5221	0.2797	0.3125
Treatment F				0.444	0.230	11.341	55.500	4.185
Treatment Prob(F)				0.7275	0.8732	0.0021	0.0001	0.0412

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.

SPT & IMD Combo/ Cotton/Sucking Insects

Objectives:
Describe the efficacy of the treatments for the control of aphids,plantbugs, and other sucking pests in Cotton. To gain exposure with IMD+SPT product for controlling aphids and other cotton pests.

Conclusions:

CROP AND INSECT DESCRIPTION

Insect 1.FRANOC Western Flower Thrips
Crop 1:GOSHI **Cotton** FM 1740 **Variety:** FM 1740 **Planting Date:** 5/21/09
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 68 F **Soil Moisture:** NORMAL **Emergence Date:** 5/28/09

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		2008

SOIL DESCRIPTION

Texture: Sandy Loan
Fertility Level: Excellent

Planting Conditions

Application Date:	5/21/09
Time of Day:	AM
Application Method:	Infurrow
Application Timing:	ATPLAN
Applic. Placement:	INFURR
Air Temp., Unit:	71 F
% Relative Humidity:	69
Wind Velocity, Unit:	4 MPH
Dew Presence (Y/N):	n
Water Hardness:	na
Soil Temp., Unit:	68 F
Soil Moisture:	EXCESSIVE
% Cloud Cover:	0

Part Rated Rating Date Rating Unit					# bugs/sweep 7/7/09 20 sweep		# bugs/sweep 7/14/09 20 sweep		YIELD 12/14/09 LBS/acre	
Trt No.	Type	Treatment Name	Rate	Rate Unit						
1	INSE	Untreated			7	a	1	a	765.7	a
2	INSE	Centric40 WG	42	g ai/ha	7	a	1	a	857.5	a
3	INSE	Centric 40 WG	42	g ai/ha	7	a	2	a	712.4	a
		UAN	1	g ai/ha						
4	INSE	IMD+SPT	71	ml/ha	7	a	0	a	635.9	a
	FERT	Calcium Ammonium Nitrate	2.5	% w/v						
5	INSE	IMD + SPT	236.5	ml/ha	7	a	1	a	845.00	a
	FERT	Calcium Ammonium Nitrate	2.5	% w/w						
6	INSE	Bidrin	2.95	ml/ha	7	a	1	a	995.6	a
LSD (P=.05)					0.0		1.3		255.58	
Standard Deviation					0.0		0.9		169.61	
CV					0.0		117.59		18.08	
Grand Mean					7.0		0.75		938.06	
Bartlett's X2					0.0		5.127		1.561	
P(Bartlett's X2)					.		0.274		0.906	
Replicate F					0.000		0.357		1.743	
Replicate Prob(F)					1.0000		0.7847		0.2011	
Treatment F					0.000		1.543		1.605	
Treatment Prob(F)					1.0000		0.2357		0.2189	

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.

Chickasha Grain Sorgum

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Aphids, Chinch Bugs, Wireworms, and Fireants on Grain Sorghum Nipsit – Valent 2009

Objectives:
Determine Nipsit Inside performance with additive components against insect pests of grain sorghum. Are enhancements contributing to greater efficacy and field performance as compared to the commercial standards in the market? Carry to yield to assess benefits in value added components vs Nipsit Inside alone or in competative standards.

Conclusions:

Crop Description

Planting Date: 9/Jun/2009
Planting Method: SEEDED
Depth, Unit: 1.5 IN
Row Spacing, Unit: 40 IN
Seed Bed: FRIABLE
Soil Temperature, Unit: 90 F
Soil Moisture: SLIGHTLY WET

Site and Design

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

Crop Code					SORVD	SORVD	SORVD
BBCH Scale					BGRM	BGRM	BGRM
Rating Date					22/Jun/2009	8/Sep/2009	8/Sep/2009
Rating Data Type					stand	yield	YIELD
Rating Unit					1/1000A	grams	BU
Trt No.	Type	Treatment Name	Rate	Rate Unit			
1	FUNG	Maxim	0.080	fl oz/cwt	25 a	555 a	58.5 a
	FUNG	APRON XL	0.32	fl oz/cwt			
	SDTR	Consep III	0.64	fl oz/cwt			
2	INSE	Cruiser	5.1	fl oz/cwt	24 a	425 a	44.7 a
	FUNG	Maxim	0.080	fl oz/cwt			
	FUNG	APRON XL	0.32	fl oz/cwt			
	SDTR	Consep III	0.64	fl oz/cwt			
3	INSE	Poncho	5.1	fl oz/cwt	25 a	568 a	59.8 a
	FUNG	Maxim	0.080	fl oz/cwt			
	FUNG	APRON XL	0.32	fl oz/cwt			
	SDTR	Consep III	0.64	fl oz/cwt			
4	INSE	Nipsit Inside	5.1	fl oz/cwt	22 a	560 a	59.0 a
	FUNG	Maxim	0.080	fl oz/cwt			
	FUNG	APRON XL	0.32	fl oz/cwt			
	SDTR	Consep III	0.64	fl oz/cwt			
5	INSE	Nipsit Inside	5.1	fl oz/cwt	26 a	313 a	33.0 a
	FUNG	V-10240	17.5	g ai/100000 seed			
	SDTR	Concep III	0.64	fl oz/cwt			
6	INSE	Nipsit Inside	5.1	fl oz/cwt	27 a	477 a	50.3 a
	FUNG	V-10230	17.5	g ai/100000 seed			
	SDTR	Concep III	0.64	fl oz/cwt			
7	INSE	Nipsit Inside	5.1	fl oz/cwt	24 a	698 a	73.5 a
	FUNG	V-10286	42.5	g ai/100000 seed			
	SDTR	Concep III	0.64	fl oz/cwt			
8	INSE	Nipsit Inside	5.1	fl oz/cwt	23 a	536 a	56.5 a
	FUNG	V-10282	42.5	g ai/100000 seed			
	SDTR	Concep III	0.64	fl oz/cwt			
LSD (P=.05)					4.4	286.4	30.17
Standard Deviation					3.0	194.7	20.51
CV					12.31	37.69	37.69
Grand Mean					24.44	516.59	54.42
Bartlett's X2					5.748	10.984	10.984
P(Bartlett's X2)					0.569	0.139	0.139
Replicate F					0.382	3.028	3.028
Replicate Prob(F)					0.7670	0.0522	0.0522
Treatment F					0.874	1.366	1.366
Treatment Prob(F)					0.5429	0.2706	0.2706

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.

Grain Sorghum Poncho Cruiser Seed Treatment - 2009

Objectives:
Compare the efficacy of Poncho Vs Cruiser on green bugs, corn leaf aphids, wireworms, false woreworms, chinch bugs and other grain sorghum insects and show the benefits compared to the non-insecticide treatment.

Conclusions:

Crop Description

Crop 1: SORVS Sorghum vulgare Sweet sorghum
Variety: NC+ B 59 **Description:** Grain Sorghum
BBCH Scale: BGRM **Planting Date:** 9/Jun/2009
Planting Method: SEEDED
Depth, Unit: 1.5 IN
Row Spacing, Unit: 40 IN
Seed Bed: FRIABLE **Soil Temperature, Unit:** 90 F
Soil Moisture: SLIGHTLY WET

Site and Design

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

Crop Code					SORVD	SORVD	SORVD
BBCH Scale					BGRM	BGRM	BGRM
Crop Variety					P 84G62	P 84G62	P 84G62
Part Rated					GRAIN C	GRAIN C	GRAIN C
Rating Date					15/Jun/2009	9/Sep/2009	9/Sep/2009
Rating Data Type					stand	YIELD	YIELD
Rating Unit					1/1000A	g/5ft	BU
Trt No.	Type	Treatment Name	Rate	Rate Unit	1	2	3
1	FUNG	Vortex	5.02	ml/unit	26 a	483 a	46.2 a
	FUNG	Allegiance	22.18	ml/unit			
	SDTR	Concep III	1.9	ml/unit			
2	INSE	Poncho	153.78	ml/unit	25 a	428 a	40.9 a
	FUNG	Vortex	5.02	ml/unit			
	FUNG	Allegiance	22.18	ml/unit			
	SDTR	Concep III	1.9	ml/unit			
3	INSE	Cruiser	153.78	ml/unit	24 a	447 a	42.8 a
	FUNG	Vortex	5.02	ml/unit			
	FUNG	Allegiance	22.18	ml/unit			
	SDTR	Concep III	1.9	ml/unit			
LSD (P=.05)					5.6	246.5	23.57
Standard Deviation					3.3	142.4	13.62
CV					13.1	31.47	31.47
Grand Mean					24.83	452.64	43.29
Bartlett's X2					2.687	1.118	1.118
P(Bartlett's X2)					0.261	0.572	0.572
Replicate F					1.354	2.602	2.602
Replicate Prob(F)					0.3430	0.1471	0.1471
Treatment F					0.717	0.156	0.156
Treatment Prob(F)					0.5260	0.8588	0.8588

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, Vortex, CSI Safener/Sorghum/Sales Promotion - 2009

General Trial Information

Conclusions:
Stands for all treatments were similar 6 days after planting. No rain was received during the critical emergence and seedling growth stage on this trial so no vigor or damage ratings were taken. Yield was taken on Sep 9, 2009 and the 1789 showed the best yield at 51.5 bu/a compared to Concep III at 48.6 and the untreated at 42.8 bu/a . This product looks as though there are no negative actions related to stand or yield in this study and appears to be very acceptable for market.

Plot Width, Unit: 4 M **Site Type:** field
Plot Length, Unit: 6 M **Tillage Type:** conventional
Replications: 4 **Study Design:** Randomized Complete Block

Trial Initiation Comments:

Comment: BiCep Magnum was applied immediately following planting.

Site and Design

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

Moisture Conditions

Overall Moisture Conditions: WET

Trt No.	Treatment Name	Rate	Rate Unit			
Crop Code				SORVD	SORVD	SORVD
BBCH Scale				BGRM	BGRM	BGRM
Crop Variety				A	A	A
Rating Date				15/Jun/2009	3/Sep/2009	3/Sep/2009
Rating Data Type				Stand	YIELD	YIELD
Rating Unit				1/1000 A	G	BU/a
Collection Basis Unit				13.1 f	5 ft	5 ft
1	VORTEX FL	0.08555		27 a	535 a	42.8 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		27 a	643 a	51.5 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	MAXIM	0.0799		24 a	607 a	48.6 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)				5.6	209.5	16.78
Standard Deviation				3.3	121.1	9.70
CV				12.51	20.35	20.35
Grand Mean				26.0	594.78	47.64
Bartlett's X2				0.321	2.324	2.324
P(Bartlett's X2)				0.852	0.313	0.313
Replicate F				0.189	5.849	5.849
Replicate Prob(F)				0.9002	0.0325	0.0325
Treatment F				1.157	0.830	0.830
Treatment Prob(F)				0.3757	0.4804	0.4804

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.

Bayer Poncho, Vortex, CSI Safener/Sorghum/Sales Promotion High rate - 2009

Conclusions:

Crop Description

Crop 1: SORVU Sorghum vulgare Shattercane
BBCH Scale: BGRM **Planting Date:** 10/Jun/2009
Planting Method: SEEDED **Rate, Unit:** 60000 S/A
Depth, Unit: 1.0 IN
Row Spacing, Unit: 40 IN **Spacing Within Row, Unit:** 40 IN
Seed Bed: MEDIUM **Soil Temperature, Unit:** 81 F
Soil Moisture: NORMAL

Site and Design

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

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	SORVU BGRM
Stage Scale Used:	BBCH

Part Rated				SHOEME	GRAIN C	GRAIN C
Rating Date				15/Jun/2009	3/Sep/2009	3/Sep/2009
Rating Data Type				STASUB	WEIDRY	YIELD
Rating Unit				PLANT	G	BU/a
Collection Basis Unit				A	FT	acre
Trt No.	Treatment Name	Rate	Rate Unit			
1	VORTEX FL	0.08555		29 a	889 a	80.6 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		25 a	897 a	81.4 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	MAXIM	0.0799		28 a	928 a	84.2 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)				4.2	62.5	5.67
Standard Deviation				2.4	36.1	3.28
CV				8.9	4.0	4.0
Grand Mean				27.08	904.48	82.07
Bartlett's X2				0.44	1.089	1.089
P(Bartlett's X2)				0.802	0.58	0.58
Replicate F				2.579	19.719	19.716
Replicate Prob(F)				0.1492	0.0016	0.0016
Treatment F				3.545	1.297	1.297
Treatment Prob(F)				0.0963	0.3402	0.3404

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 Cotton

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Aeris Seed-Applied System Nematodes and Early Season Pests at Tipton

Objectives:
Show the benefits of seed treatment and the addition of the GB product to performance on cotton.

Conclusions:
The Aeris seed treatment and the GB 126Aeris seed treatment had the best initial stane 8 DAP. The best final stands were with the same treatments. The least amount of thrips damage was with the Aeris seed treatment. Yields were low due to the lack of moisture during the season with the Aeris and the GB 126 + Gaucho Grande having the best yields.

CROP AND INSECT DESCRIPTION

Insect 1.FRANOC Western Flower Thrips
Crop 1:GOSHI **Cotton** FM 1740 **Variety:** FM 1740 **Planting Date:** 5/19/09
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 67 F **Soil Moisture:** NORMAL **Emergence Date:** 5/28/09

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		2008

SOIL DESCRIPTION

Texture: Sandy Loan
Fertility Level: Excellent

Planting Conditions

Application Date:	5/19/09
Time of Day:	AM
Application Method:	Infurrow
Application Timing:	ATPLAN
Applic. Placement:	INFURR
Air Temp., Unit:	75 F
% Relative Humidity:	54
Wind Velocity, Unit:	14 MPH
Dew Presence (Y/N):	n
Water Hardness:	na
Soil Temp., Unit:	67 F
Soil Moisture:	NORMAL
% Cloud Cover:	0

Insect Code Rating Data Type Rating Unit Rating Date				Stand Count Plants /acre 5/27/09	Stand Count Plants /acre 6/4/09	Damage Rating Damage rating 6/16/09	Yield lint lb/Acre 11/5/09
Trt No.	Treatment Name	Rate	Rate Unit				
1	Gaucho Grande	12.78	mg ai/seed	22250 a	22500 a	3 a	202.031 a
2	Aeris Seed Applied	0.75	mg ai/seed	25000 a	27750 a	2 a	233.206 a
3	GB 126 Gaucho Grande	5.0 0.75	mg ai/seed mg ai/seed	21750 a	24250 a	2 a	229.450 a
4	GB 126 Aeris Seed Applied	5.0 0.75	mg ai/seed mg ai/seed	25250 a	28250 a	2 a	216.413 a
5	Cruiser Avicta	0.3 0.1	mg ai/seed mg ai/seed	21750 a	26000 a	2 a	214.175 a
LSD (P=.05)				6768.9	6159.9	7985.1	42.8628
Standard Deviation				4393.2	3997.9	5182.5	27.8188
CV				44.15	17.23	20.13	12.7
Bartlett's X2				9950.0	23200.0	25750.0	219.06
P(Bartlett's X2)				3.024	0.986	3.643	1.701
				0.554	0.912	0.457	0.791
Replicate F							
Replicate Prob(F)				2.662	0.442	0.707	3.696
Treatment F				0.0954	0.7272	0.5662	0.0430
Treatment Prob(F)				0.352	0.785	0.861	0.813

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.

Comparison of Bollgard II Flex Cotton Under Dryland Conditions at Tipton

Objectives:
Test the effectiveness of B2F - Bt technology on Heliothine larval pests.

Conclusions: The bollworm populations were present and did not appear to effect the yield in this test. Yield effects were attributed to dry conditions. The best stands 8 DAP were with ST 4288B2R and DP 0949 B2R. The best stands at 16 DAP were with FM9180 B2R and FM 9170 B2R. The yield was best with ST 5288 B2R.

CROP AND INSECT DESCRIPTION

Insect 1.FRANOC Western Flower Thrips
Crop 1:GOSHI **Cotton** FM 1740 **Variety:** FM 1740 **Planting Date:** 5/19/09
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 67 F **Soil Moisture:** NORMAL **Emergence Date:** 5/28/09

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		2008

SOIL DESCRIPTION

Texture: Sandy Loan
Fertility Level: Excellent

Planting Conditions

Application Date:	5/19/09
Time of Day:	AM
Application Method:	Infurrow
Application Timing:	ATPLAN
Applic. Placement:	INFURR
Air Temp., Unit:	75 F
% Relative Humidity:	54
Wind Velocity, Unit:	14 MPH
Dew Presence (Y/N):	n
Water Hardness:	na
Soil Temp., Unit:	67 F
Soil Moisture:	NORMAL
% Cloud Cover:	0

Insect Code Rating Data Type Rating Unit Rating Date	Stand Count Plants /acre 5/28/09	Stand Count Plants /acre 6/4/09	Vigor Rating Plants 1=best 6/17/09	Yield Lint lbs/acre 11/5/09
Trt Treatment No. Name				
1 FM 9160 B2F	15500 a	23000 a	2 c	66.0 a
2 FM 9180 B2F	23000 a	29000 a	3 abc	116.3 a
3 FM 1740 B2F	16500 a	22000 a	3 abc	137.5 a
4 FM 9170 B2F	21000 a	27500 a	3 bc	83.7 a
5 ST 4288 B2F	25250 a	26750 a	4 abc	163.1 a
6 ST 5288 B2F	22000 a	25500 a	5 a	128.7 a
7 DP 0912 B2F	19000 a	23250 a	5 ab	113.9 a
8 DP 0920 B2F	20500 a	23250 a	4 ab	144.9 a
9 DP 0924 B2F	22250 a	26250 a	4 ab	124.8 a
10 DP 0935 B2F	20500 a	22250 a	4 ab	116.1 a
11 DP 0949 B2F	24250 a	21750 a	4 abc	96.0 a
LSD (P=.05)	6273.8	5478.4	1.1	83.61
Standard Deviation	4345.0	3794.1	0.8	57.90
CV	20.8	15.43	20.27	49.35
Bartlett's X2	20886.37	24590.91	3.83	117.35
P(Bartlett's X2)	7.405	5.077	9.733	2.306
	0.687	0.886	0.464	0.993
Replicate F				
Replicate Prob(F)	0.987	0.895	11.743	99.745
Treatment F	0.4122	0.4553	0.0001	0.0001
Treatment Prob(F)	1.908	1.738	3.771	0.916

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.

Bayer Temik/Southern Crops/Various Pests/Local Positioning

Objectives:
Show the benefits of seed treatment to performance on cotton.

Conclusions:
Initial stands 7 DAP were best with Aeris and Aeris plus Temik 3.5 lb/a. Final stands at 14 DAP were best with Avicta and Avicta plus Temik 3.5 lb/a. The least damage was with the Temik 3.5 lb/a at 27 DAP. The best vigor was with Temik 3.5 lb/a at 27 DAP. The Aeris seed Treatment plus the Temik at 3.5 lb/a had the best yield.

CROP AND INSECT DESCRIPTION

Insect 1.FRANOC Western Flower Thrips
Crop 1:GOSHI **Cotton** FM 1740 **Variety:** FM 1740 **Planting Date:** 5/19/09
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 67 F **Soil Moisture:** NORMAL **Emergence Date:** 5/28/09

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		2008

SOIL DESCRIPTION

Texture: Sandy Loan
Fertility Level: Excellent

Planting Conditions

Application Date:	5/19/09
Time of Day:	AM
Application Method:	Infurrow
Application Timing:	ATPLAN
Applic. Placement:	INFURR
Air Temp., Unit:	75 F
% Relative Humidity:	54
Wind Velocity, Unit:	14 MPH
Dew Presence (Y/N):	n
Water Hardness:	na
Soil Temp., Unit:	67 F
Soil Moisture:	NORMAL
% Cloud Cover:	0

Pest Code Rating Date Rating Data Type Rating Unit			Stand Count 5/28/09 Plants /acre	Stand Count 6/4/09 Plants /acre	Damage Rating 6/18/09 1=none	Yield 11/5/09 Lint Lbs/acre	
Trt No. Treatment Name	Rate	Rate Unit					
1 Untreated			19250 a	22750 a	4 a	291.2	a
2 AERIS SEED APPLIED SYSTEM			23000 a	27500 a	3 b	194.4	a
3 AVICTA COMPLETE PAK - AVICTA			21750 a	24500 a	3 bc	176.6	a
4 AERIS SEED APPLIED SYSTEM TEMIK 15G	3.5	Lbs/acre	18750 a	21500 a	2 c	203.7	a
5 AVICTA COMPLETE PAK – AVICTA TEMIK 15G	3.5	Lbs/acre					
6 TEMIK 15G	3.5	Lbs/acre	20000 a	25500 a	1 d	150.4	a
LSD (P=.05)			9014.2	6857.1	0.7	10135.6	
Standard Deviation			5982.2	4550.6	0.4	6726.4	
CV			29.36	19.06	18.63	21.64	
Grand Mean			20375.0	23875.0	2.33	31083.34	
Bartlett's X2			8.5	2.34	0.991	1.608	
P(Bartlett's X2)			0.131	0.80	0.803	0.90	
Replicate F			3.954	2.400	2.941	0.846	
Replicate Prob(F)			0.0292	0.1085	0.0671	0.4899	
Treatment F			0.304	1.109	30.529	1.778	
Treatment Prob(F)			0.9030	0.3963	0.0001	0.1779	

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.

2009 Cotton At-Planting Insecticide Field Evaluation

Objectives:
Show the benefits of seed treatment to performance on cotton.

Conclusions:
Stands at 8 DAP were best with the Cruiser treated seed. At 16 DAP the best stands were with Gaucho Grande and Cruiser treated seed. Thrips damage 28 DAP showed the least damage or best protection with Temik at 3.5 lb/acre. We used a scale on vigor where 1=worst vigor and the cruiser treated seed had the best vigor. Yields were comparable with the Temik at 3.5 lb/a and the Cruiser treated seed + Temik at 3.5 lb/a.

CROP AND INSECT DESCRIPTION

Insect 1.FRANOC Western Flower Thrips
Crop 1:GOSHI **Cotton** FM 1740 **Variety:** FM 1740 **Planting Date:** 5/19/09
Planting Method: SEEDED **Rate:** 46,000 seeds/acre **Depth:** 1.5 IN
Row Spacing: 40 IN **Seed Bed:** SMOOTH
Soil Temperature: 67 F **Soil Moisture:** NORMAL **Emergence Date:** 5/28/09

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		2008

SOIL DESCRIPTION

Texture: Sandy Loan
Fertility Level: Excellent

Planting Conditions

Application Date:	5/19/09
Time of Day:	AM
Application Method:	Infurrow
Application Timing:	ATPLAN
Applic. Placement:	INFURR
Air Temp., Unit:	75 F
% Relative Humidity:	54
Wind Velocity, Unit:	14 MPH
Dew Presence (Y/N):	n
Water Hardness:	na
Soil Temp., Unit:	67 F
Soil Moisture:	NORMAL
% Cloud Cover:	0

Trt No.	Treatment Name	Rate	Rate Unit	Stand Count 5/28/09 Plants /acre	Stand Count 6/4/09 Plants /acre	Damage Rating 6/16/09 1=none	Vigor Rating 6/16/09 1=Best	Yield 11/13/09 Lint Lbs/acre
1	BAYTAN 30	0.5	fl oz/cwt	21750 a	21000 b	3 a	3 a	253.4 a
	VORTEX FL	0.08	fl oz/cwt					
	ALLEGIANCE FL	0.32	fl oz/cwt					
	PRECISE S FINISHER 1005	1	fl oz/cwt					
	PRO-IZED RED COLORANT	0.1	fl oz/cwt					
2	BAYTAN 30	0.5	fl oz/cwt	20250 a	25500 a b	3 b	4 a	255.8 a
	VORTEX FL	0.08	fl oz/cwt					
	ALLEGIANCE FL	0.32	fl oz/cwt					
	GAUCHO GRANDE	8.92	fl oz/cwt					
	PRECISE S FINISHER 1005	1	fl oz/cwt					
	PRO-IZED RED COLORANT	0.1	fl oz/cwt					
3	BAYTAN 30	0.5	fl oz/cwt	22250 a	27500 a	3 b	4 a	286.2 a
	VORTEX FL	0.08	fl oz/cwt					
	ALLEGIANCE FL	0.32	fl oz/cwt					
	CRUISER	8.92	fl oz/cwt					
	PRECISE S FINISHER 1005	1	fl oz/cwt					
	PRO-IZED RED COLORANT	0.1	fl oz/cwt					
4	BAYTAN 30	0.5	fl oz/cwt	18750 a	20750 b	2 b	3 a	285.4 a
	VORTEX FL	0.08	fl oz/cwt					
	ALLEGIANCE FL	0.32	fl oz/cwt					
	PRECISE S FINISHER 1005	1	fl oz/cwt					
	PRO-IZED RED COLORANT	0.1	fl oz/cwt					
	Temik	3.5	lb/a					
LSD (P=.05)				6453.2	4557.3	1.8	1.6	43.09
Standard Deviation				4034.6	2849.2	1.1	1.0	26.94
CV				19.44	12.03	43.53	31.48	9.97
Grand Mean				20750.0	23687.5	2.63	3.19	270.2
Bartlett's X2				3.626	2.549	2.292	4.139	4.771
P(Bartlett's X2)				0.305	0.467	0.514	0.247	0.189
Replicate F				2.017	1.794	0.319	1.221	0.987
Replicate Prob(F)				0.1821	0.2183	0.8115	0.3574	0.3125
Treatment F				0.614	5.530	0.702	1.221	4.185
Treatment Prob(F)				0.6227	0.0198	0.5742	0.3574	0.0412

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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Aphids, Chinch Bugs, Wireworms, and Fireants on Grain Sorghum Nipsit - Valent

Objectives:
Determine Nipsit Inside performance with additive components against insect pests of grain sorghum. Are enhancements contributing to greater efficacy and field performance as compared to the commercial standards in the market? Carry to yield to assess benefits in value added components vs Nipsit Inside alone or in competative standards.

Conclusions:

Crop Description

Crop 1: SORVU Sorghum vulgare Shattercane
BBCH Scale: BGRM **Planting Date:** 15/Jun/2009
Planting Method: SEEDED **Rate, Unit:** 60000 S/A
Depth, Unit: 1.0 IN
Row Spacing, Unit: 40 IN **Spacing Within Row, Unit:** 40 IN
Seed Bed: MEDIUM **Soil Temperature, Unit:** 82 F
Soil Moisture: NORMAL

Site and Design

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

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	15/Jun/2009	Bicep Mangumn II				1.0	QT/A

Crop Variety Rating Date Rating Data Type Rating Unit					Stand 25/Jun/2009 stand 1/1000 A	29/Sep/2009 Yield 5 ft	29/Sep/2009 YIELD BU
Trt No.	Type	Treatment Name	Rate	Rate Unit			
1	FUNG	Maxim	0.080	fl oz/cwt	48 a	275 a	28.6 a
	FUNG	APRON XL	0.32	fl oz/cwt			
	SDTR	Consep III	0.64	fl oz/cwt			
2	INSE	Cruiser	5.1	fl oz/cwt	44 a	279 a	28.9 a
	FUNG	Maxim	0.080	fl oz/cwt			
	FUNG	APRON XL	0.32	fl oz/cwt			
	SDTR	Consep III	0.64	fl oz/cwt			
3	INSE	Poncho	5.1	fl oz/cwt	46 a	300 a	31.2 a
	FUNG	Maxim	0.080	fl oz/cwt			
	FUNG	APRON XL	0.32	fl oz/cwt			
	SDTR	Consep III	0.64	fl oz/cwt			
4	INSE	Nipsit Inside	5.1	fl oz/cwt	48 a	239 a	24.8 a
	FUNG	Maxim	0.080	fl oz/cwt			
	FUNG	APRON XL	0.32	fl oz/cwt			
	SDTR	Consep III	0.64	fl oz/cwt			
5	INSE	Nipsit Inside	5.1	fl oz/cwt	46 a	220 a	22.9 a
	FUNG	V-10240	17.5	g ai/100000 seed			
	SDTR	Concep III	0.64	fl oz/cwt			
6	INSE	Nipsit Inside	5.1	fl oz/cwt	45 a	290 a	30.1 a
	FUNG	V-10230	17.5	g ai/100000 seed			
	SDTR	Concep III	0.64	fl oz/cwt			
7	INSE	Nipsit Inside	5.1	fl oz/cwt	44 a	291 a	30.2 a
	FUNG	V-10286	42.5	g ai/100000 seed			
	SDTR	Concep III	0.64	fl oz/cwt			
8	INSE	Nipsit Inside	5.1	fl oz/cwt	41 a	248 a	25.8 a
	FUNG	V-10282	42.5	g ai/100000 seed			
	SDTR	Concep III	0.64	fl oz/cwt			
LSD (P=.05)					8.0	92.5	9.60
Standard Deviation					5.4	62.9	6.53
CV					12.05	23.48	23.48
Grand Mean					45.16	267.83	27.81
Bartlett's X2					3.323	4.337	4.337
P(Bartlett's X2)					0.854	0.74	0.74
Replicate F					0.187	0.188	0.188
Replicate Prob(F)					0.9043	0.9032	0.9032
Treatment F					0.721	0.826	0.826
Treatment Prob(F)					0.6560	0.5772	0.5772

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.

Grain Sorghum Poncho Cruiser Seed Treatment - 2009

Objectives:
Compare the efficacy of Poncho Vs Cruiser on green bugs, corn leaf aphids, wireworms, false woreworms, chinch bugs and other grain sorghum insects and show the benefits compared to the non-insecticide treatment.

Conclusions:

Site and Design

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

Rating Date					25/Jun/2009	30/Sep/2009	30/Sep/2009
Rating Data Type					Stand	harviest	YIELD
Rating Unit					1/1000 A	grams	BU
Crop Stage					1 leaf	mature	mature
Trt No.	Type	Treatment Name	Rate	Rate Unit	1	2	3
1	FUNG	Vortex	5.02	ml/unit	46 a	291 a	30.2 a
	FUNG	Allegiance	22.18	ml/unit			
	SDTR	Concep III	1.9	ml/unit			
2	INSE	Poncho	153.78	ml/unit	45 a	241 a	25.0 a
	FUNG	Vortex	5.02	ml/unit			
	FUNG	Allegiance	22.18	ml/unit			
	SDTR	Concep III	1.9	ml/unit			
3	INSE	Cruiser	153.78	ml/unit	49 a	249 a	25.8 a
	FUNG	Vortex	5.02	ml/unit			
	FUNG	Allegiance	22.18	ml/unit			
	SDTR	Concep III	1.9	ml/unit			
LSD (P=.05)					11.0	130.9	13.56
Standard Deviation					6.3	75.6	7.84
CV					13.64	29.05	29.05
Grand Mean					46.5	260.38	26.97
Bartlett's X2					1.354	0.03	0.03
P(Bartlett's X2)					0.508	0.985	0.985
Replicate F					0.345	0.699	0.699
Replicate Prob(F)					0.7942	0.5859	0.5859
Treatment F					0.472	0.515	0.515
Treatment Prob(F)					0.6449	0.6218	0.6218

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.

Bayer Poncho, Vortex, CSI Safener/Sorghum/Sales Promotion - 2009

Conclusions:

Crop Description

Crop 1: SORVU Sorghum vulgare Shattercane
BBCH Scale: BGRM **Planting Date:** 15/Jun/2009
Planting Method: SEEDED **Rate, Unit:** 60000 S/A
Depth, Unit: 1.0 IN
Row Spacing, Unit: 40 IN **Spacing Within Row, Unit:** 40 IN
Seed Bed: MEDIUM **Soil Temperature, Unit:** 82 F
Soil Moisture: NORMAL

Site and Design

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

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	15/Jun/2009	Degree				2.0	QT/A

Rating Date				25/Jun/2009	30/Sep/2009	30/Sep/2009
Rating Data Type				Stand/A	Yield	YIELD
Rating Unit				1/1000 A	5 ft	BU
Crop Stage				1 leaf	Mature	Mature
Trt No.	Treatment Name	Rate	Rate Unit			
1	VORTEX FL	0.08555		48 a	255 a	26.4 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		43 a	298 a	30.9 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	MAXIM	0.0799		43 a	270 a	28.1 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)				11.7	115.2	11.96
Standard Deviation				6.7	66.6	6.91
CV				15.1	24.28	24.28
Grand Mean				44.67	274.23	28.47
Bartlett's X2				2.201	1.533	1.533
P(Bartlett's X2)				0.333	0.465	0.465
Replicate F				0.738	2.057	2.057
Replicate Prob(F)				0.5668	0.2075	0.2075
Treatment F				0.739	0.430	0.430
Treatment Prob(F)				0.5167	0.6688	0.6688

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 Weather

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

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MESONET CLIMATOLOGICAL DATA SUMMARY — April 2009 — 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	34	60.2	27.6	7	0	73	10	34	0.00	28.08	29.51	SSW	12.4	50.9	20.20	53.2	57.0	64	50
2	63	38	51.5	29.3	14	0	68	20	45	0.00	28.22	29.65	NNW	21.8	54.4	19.56	53.3	57.1	61	54
3	77*	32*	55.1*	30.2*	11*	0*	83*	18*	45*	0.00*	28.25*	29.69*	SSE*	15.2*	36.4*	23.40*	52.7*	56.2*	64*	48*
4	81	47	65.5	30.2	1	0	58	12	32	0.00	28.17	29.60	SE	19.0	42.5	25.29	55.5	61.3	68	55
5	57	36	46.0	21.1	18	0	54	24	38	0.00	28.72	30.17	NNW	24.3	46.6	26.16	53.0	56.9	61	53
6	59	32	44.0	15.4	20	0	55	16	34	0.00	28.93	30.39	NNW	17.5	49.4	26.85	51.0	53.5	59	49
7	81	24	52.7	12.9	12	0	63	7	27	0.00	28.65	30.11	SSW	11.9	35.7	26.99	51.4	54.2	63	46
8	83	40	63.3	23.7	4	0	39	12	23	0.00	28.29	29.73	E	8.3	19.6	24.35	54.8	59.9	69	52
9	81	52	70.6	27.4	0	1	44	10	22	0.00	28.08	29.52	SW	22.8	55.0	25.29	57.3	64.0	69	60
10	66	41	52.6	33.5	11	0	70	31	50	0.00	28.59	30.04	N	13.9	35.3	26.14	56.3	61.6	68	56
11	70	40	54.3	37.7	10	0	93	27	58	0.59	28.58	30.03	ESE	14.1	57.0	16.92	56.1	59.2	63	55
12	64	51	54.5	50.5	7	0	98	55	87	0.24	28.32	29.76	SE	9.3	47.1	10.17	56.4	58.1	63	56
13	65	45	53.8	43.5	10	0	91	44	70	0.00	28.49	29.94	NNW	12.5	27.8	21.72	56.2	56.5	61	52
14	78	41	59.5	44.7	6	0	96	28	63	0.00	28.49	29.94	SE	11.0	24.1	24.64	56.9	58.2	66	51
15	77	51	62.5	46.8	1	0	88	28	60	0.00	28.46	29.91	SE	17.4	38.0	20.54	58.0	61.2	68	56
16	63	53	58.3	52.1	7	0	87	67	80	0.18	28.50	29.94	ESE	16.3	34.6	6.08	57.6	59.4	62	58
17	67	54	59.0	54.7	4	0	97	73	86	0.26	28.50	29.95	ESE	16.0	30.6	11.82	58.0	59.0	62	57
18	76	52	62.9	48.0	1	0	98	20	65	0.00	28.46	29.91	SE	9.7	29.9	24.58	60.2	61.9	68	58
19	69	48	57.8	42.8	6	0	85	33	60	0.00	28.66	30.12	NNW	17.0	43.4	24.03	59.0	60.5	67	55
20	85	42	63.3	38.5	1	0	90	13	50	0.00	28.63	30.09	W	10.3	32.0	26.32	58.8	62.8	73	54
21	86	49	68.3	42.0	0	2	80	16	45	0.00	28.54	29.99	NNW	7.0	18.1	27.74	61.0	67.5	78	58
22	96	54	74.3	42.9	0	10	84	10	41	0.00	28.36	29.80	ENE	9.4	21.9	27.82	63.2	70.9	80	63
23	97	57	77.3	41.9	0	12	55	14	30	0.01	28.28	29.72	S	13.2	49.2	18.75	63.5	70.8	77	65
24	92	62	76.9	55.3	0	12	84	19	52	0.00	28.36	29.80	SSE	18.6	41.2	24.05	64.7	72.3	78	67
25	90	64	77.1	61.0	0	12	90	36	60	0.00	28.38	29.82	S	20.7	42.6	18.07	66.1	73.0	78	69
26	80	63	73.0	63.8	0	7	88	59	73	0.01	28.30	29.74	SSE	22.9	49.7	5.20	66.3	71.3	73	69
27	73	54	65.0	57.1	1	0	97	58	77	0.00	28.51	29.96	NNE	12.6	29.1	16.97	65.4	69.3	74	66
28	71	52	60.8	54.4	4	0	97	62	80	0.00	28.70	30.16	NE	11.6	26.3	13.21	64.2	67.0	71	64
29	73	60	64.7	61.9	0	1	98	72	91	4.36	28.49	29.94	SE	12.8	40.0	10.54	64.8	67.2	71	64
30	84	59	71.4	64.9	0	7	95	58	81	0.00	28.42	29.87	SE	12.7	28.7	23.50	66.5	68.7	75	64
	76*	48*	61.9*	41.8*	<- Monthly Averages ->						28.45*	29.89*	SE *	14.7*	57.0*	20.56*	58.7*	62.5*	68*	57*

Temperature - Highest: 97*
Lowest: 24*

Degree Days - Total HDD: 157*
Total CDD: 64*

Number of Days With:
Tmax ≥ 90: 4* — Rainfall ≥ 0.01 inch: 7*
Tmax ≤ 32: 0* — Rainfall ≥ 0.10 inch: 5*
Tmin ≤ 32: 3* — Avg Wind Speed ≥ 10 mph: 25*
Tmin ≤ 0: 0* — Max Wind Speed ≥ 30 mph: 21*

Rainfall: Monthly Total: 5.65* in.
Greatest 24 Hr: 4.36* in.

Humidity - Highest: 98*
Lowest: 7*

* Denotes incomplete record

monthly data generated on wednesday, november 11, 2009 at 14:55 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — May 2009 — 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	81	53	66.2	61.6	0	2	95	61	86	0.00	28.47	29.92	NNE	14.2	35.4	16.92	68.6	69.8	75	64
2	55	51	52.7	50.7	12	0	96	87	93	0.05	28.47	29.91	NNE	12.3	26.4	3.72	64.0	60.9	64	59
3	60	52	56.0	50.8	9	0	94	71	83	0.00	28.48	29.93	N	10.9	24.2	7.66	61.7	59.2	61	58
4	62	48	55.1	50.0	10	0	96	59	84	0.02	28.54	29.99	ESE	6.6	18.6	10.64	61.3	58.9	63	55
5	62	51	58.2	57.4	9	0	99	95	97	0.12	28.40	29.84	E	7.6	18.0	3.84	61.3	59.4	62	57
6	76	60	65.5	61.3	0	3	98	66	87	0.04	28.40	29.85	NE	7.3	22.4	17.27	63.8	64.7	72	61
7	87	60	72.8	67.7	0	8	98	60	86	0.01	28.32	29.76	SE	8.0	21.0	17.50	66.7	68.4	74	63
8	84	70	76.7	66.7	0	12	94	58	72	0.00	28.24	29.67	NNE	14.1	29.8	25.46	70.1	73.7	80	68
9	72	61	64.5	44.8	0	1	72	36	49	0.00	28.59	30.05	NE	14.9	37.1	8.42	67.3	68.9	73	67
10	63	55	59.3	53.3	6	0	96	69	81	0.00	28.62	30.08	NE	11.1	27.1	5.37	64.8	65.4	67	63
11	61	52	56.5	53.7	9	0	97	83	90	0.85	28.66	30.11	NE	9.6	26.9	5.85	62.7	61.8	64	59
12	88	59	68.7	63.2	0	8	99	35	85	0.68	28.37	29.81	SE	12.2	61.5	15.49	64.5	65.6	73	61
13	93	66	78.6	66.4	0	15	92	37	68	0.00	28.21	29.65	SE	15.3	39.3	28.12	68.4	71.0	77	65
14	79	64	70.1	62.1	0	7	89	62	76	0.00	28.50	29.95	NE	14.8	38.0	8.66	68.6	68.5	72	66
15	91	65	75.9	64.9	0	13	90	39	71	0.47	28.41	29.85	SE	15.1	32.7	25.37	69.8	72.3	80	67
16	69	52	61.9	50.2	4	0	92	32	69	0.29	28.70	30.16	NNE	15.6	31.4	14.68	68.3	67.2	72	62
17	72	46	59.8	44.5	6	0	93	30	61	0.00	28.81	30.28	SE	6.4	14.5	29.63	66.5	64.3	73	57
18	78	51	64.6	50.8	1	0	91	37	64	0.00	28.74	30.20	SE	10.1	20.9	29.19	67.7	67.8	77	60
19	82	52	66.8	48.6	0	2	86	24	57	0.00	28.71	30.17	SE	11.2	24.4	29.86	68.2	70.7	79	63
20	83	53	68.1	52.0	0	3	90	30	60	0.00	28.61	30.07	SE	11.6	23.6	27.78	68.6	72.4	80	65
21	84	55	69.6	53.0	0	5	90	32	60	0.00	28.57	30.02	ESE	9.8	21.9	28.00	69.3	74.1	82	67
22	84	61	72.0	58.2	0	7	89	34	64	0.00	28.57	30.02	ESE	8.2	19.9	21.34	69.8	74.9	81	69
23	80	62	69.1	62.5	0	6	94	57	80	0.26	28.54	29.99	NE	7.7	24.9	17.20	70.0	73.4	77	70
24	83	63	71.2	62.0	0	8	96	44	75	0.01	28.48	29.92	NE	5.8	15.6	22.53	71.2	74.2	82	68
25	87	62	73.8	61.1	0	10	96	35	69	0.00	28.32	29.76	SE	6.1	18.9	23.30	72.0	76.5	85	70
26	89	62	74.0	56.7	0	11	87	31	58	0.00	28.33	29.77	N	12.5	35.1	27.77	72.5	78.8	87	72
27	79	55	67.0	49.7	0	2	83	32	57	0.00	28.48	29.93	NNW	11.5	28.1	29.54	70.5	76.5	83	71
28	88	55	72.0	47.7	0	7	88	17	49	0.00	28.51	29.95	NE	6.9	21.3	30.04	71.1	77.3	86	69
29	91	58	75.0	49.1	0	9	79	17	46	0.00	28.59	30.04	N	5.7	18.1	29.99	72.3	79.1	88	71
30	95	59	78.2	51.6	0	12	84	15	45	0.00	28.53	29.98	NA	7.5	19.4	29.86	73.5	80.7	89	73
31	96	61	80.5	53.4	0	14	81	15	45	0.00	28.45	29.89	S	11.6	26.0	29.58	74.6	81.6	89	75
	79	57	67.8	55.7	<- Monthly Averages ->						28.50	29.95	SE *	10.4	61.5	20.02	68.1	70.2	76	65

Temperature - Highest: 96
Lowest: 46

Degree Days - Total HDD: 65
Total CDD: 163

Number of Days With:
Tmax ≥ 90: 5 — Rainfall ≥ 0.01 inch: 11
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 6
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 17
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 8

Rainfall: Monthly Total: 2.80 in.
Greatest 24 Hr: 0.85 in.

Humidity - Highest: 99
Lowest: 15

* Denotes incomplete record

monthly data generated on wednesday, november 11, 2009 at 14:55 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — June 2009 — 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	91	64	78.3	58.1	0	12	91	28	53	0.24	28.41	29.86	S	13.9	39.8	22.01	75.0	81.2	86	77
2	84	65	73.0	62.5	0	9	89	42	71	0.13	28.46	29.91	SSE	9.0	36.6	20.10	73.6	77.2	82	73
3	76	64	70.1	59.7	0	5	88	53	71	0.00	28.60	30.05	N	12.7	25.5	18.03	72.7	74.6	78	72
4	83	54	69.9	52.1	0	4	87	30	57	0.00	28.61	30.06	NE	7.2	18.6	28.93	72.2	75.8	86	67
5	90	57	75.5	54.9	0	9	89	27	53	0.00	28.50	29.95	SE	12.4	30.1	28.62	73.4	78.6	86	71
6	101	68	82.2	57.3	0	20	68	22	46	0.06	28.33	29.78	SSE	16.4	41.5	27.59	74.7	81.1	89	75
7	99	68	82.6	60.0	0	19	80	20	50	0.00	28.26	29.70	SSE	14.8	36.0	20.96	74.4	80.1	85	75
8	94	65	80.3	62.3	0	15	87	29	57	0.00	28.34	29.78	ESE	8.8	28.3	28.34	75.4	82.0	89	75
9	102	69	84.1	60.2	0	21	82	10	52	0.00	28.35	29.79	S	12.7	34.1	22.93	76.3	82.6	88	78
10	82	62	69.9	60.2	0	7	98	44	74	0.42	28.36	29.81	SW	8.0	52.2	7.77	73.9	77.1	83	72
11	87	59	73.0	63.9	0	8	99	40	77	0.01	28.37	29.82	ESE	6.3	17.8	27.45	73.7	75.6	83	68
12	96	70	81.1	66.7	0	18	97	27	67	0.00	28.36	29.80	E	7.9	19.6	27.90	76.7	81.7	91	74
13	96	69	81.2	67.9	0	18	86	39	66	0.20	28.45	29.89	E	11.8	38.1	22.36	77.9	83.8	92	77
14	90	67	76.3	67.3	0	14	91	49	75	0.40	28.45	29.90	SSE	8.8	34.9	15.54	76.6	78.8	83	75
15	95	67	82.0	68.0	0	16	93	39	65	0.25	28.35	29.80	SSE	14.8	34.3	27.11	77.1	78.6	84	73
16	99	70	85.1	66.7	0	19	85	33	57	0.00	28.33	29.77	S	12.8	28.2	28.67	78.3	82.0	91	75
17	98	73	85.5	64.8	0	20	77	26	52	0.00	28.39	29.84	SSE	14.9	30.8	27.89	78.7	84.6	91	78
18	97	73	85.8	64.5	0	20	79	26	52	0.00	28.36	29.80	SSE	15.8	37.0	29.46	78.7	85.7	93	79
19	89	75	80.6	67.6	0	17	89	45	66	0.00	28.38	29.82	S	9.5	30.9	16.75	78.4	85.1	88	81
20	92	74	82.2	68.1	0	18	89	41	65	0.00	28.35	29.79	S	12.9	35.7	18.83	77.9	83.5	88	80
21	100	74	86.8	66.3	0	22	84	30	54	0.00	28.34	29.78	SSE	12.6	30.3	26.35	78.7	85.4	92	79
22	102	72	88.2	62.3	0	22	77	22	46	0.00	28.37	29.81	SE	10.4	23.2	29.10	79.9	87.8	95	81
23	102	72	87.5	60.6	0	22	75	21	44	0.00	28.41	29.86	ESE	7.2	20.5	24.67	80.4	88.5	95	82
24	103	72	88.7	60.8	0	22	75	19	44	0.00	28.47	29.92	ESE	7.3	20.2	29.00	81.0	89.5	97	83
25	102	74	88.6	61.0	0	23	77	15	45	0.00	28.47	29.92	SE	7.7	20.8	28.38	81.8	90.3	97	84
26	102	69	88.0	57.3	0	21	70	19	39	0.00	28.42	29.87	SE	8.8	35.7	29.24	81.5	89.8	96	83
27	105	74	90.3	61.3	0	25	70	20	42	0.00	28.40	29.85	SE	9.7	33.2	28.10	82.2	90.8	98	84
28	90	74	81.7	67.7	0	17	89	46	64	0.20	28.51	29.96	NNE	10.8	29.8	12.55	81.0	86.4	91	83
29	82	71	75.5	67.2	0	11	94	62	76	0.07	28.45	29.90	NA	4.6	22.0	8.86	78.7	80.8	83	79
30	94	68	79.2	65.5	0	16	97	33	67	0.01	28.41	29.85	NA	5.2	30.2	26.97	79.0	83.6	93	76
	94	68	81.1	62.8	<- Monthly Averages ->						28.41	29.85	SSE*	10.5	52.2	23.68	77.3	82.7	89	77

Temperature - Highest: 105
Lowest: 54

Degree Days - Total HDD: 0
Total CDD: 489

Number of Days With:
Tmax ≥ 90: 23 — Rainfall ≥ 0.01 inch: 11
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 7
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 15
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 18

Rainfall: Monthly Total: 1.99 in.
Greatest 24 Hr: 0.42 in.

Humidity - Highest: 99
Lowest: 10

* Denotes incomplete record

monthly data generated on tuesday, september 22, 2009 at 18:29 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — July 2009 — 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	64	82.5	59.2	0	16	93	22	53	0.00	28.44	29.89	SSE	5.7	15.4	29.53	79.6	86.1	94	78
2	100	70	86.6	59.8	0	20	79	22	45	0.00	28.52	29.97	NA	6.8	19.6	29.24	80.7	88.4	96	82
3	102	72	88.4	58.7	0	22	70	21	40	0.00	28.52	29.97	SSE	11.2	27.2	27.58	81.1	89.0	95	83
4	101	74	85.3	66.5	0	23	94	26	58	0.18	28.45	29.90	S	11.6	56.8	21.65	81.3	88.5	95	84
5	88	71	78.0	66.3	0	15	95	39	70	0.00	28.53	29.98	NE	9.4	22.4	21.91	80.4	84.7	90	81
6	90	65	77.4	59.9	0	12	92	32	58	0.00	28.52	29.97	NE	6.4	19.4	28.43	79.7	84.9	93	78
7	95	71	82.3	64.7	0	18	80	39	57	0.00	28.41	29.86	S	9.8	23.0	27.68	80.4	86.9	93	81
8	103	72	87.5	66.2	0	22	83	26	53	0.00	28.34	29.78	SE	13.8	31.3	28.86	81.1	88.4	95	82
9	105	75	90.6	63.5	0	25	79	20	45	0.00	28.39	29.84	S	13.9	33.0	28.99	81.7	89.5	95	84
10	105	74	91.6	59.2	0	25	63	21	36	0.00	28.50	29.95	S	11.9	29.4	29.52	82.3	90.3	97	84
11	104	73	90.1	58.4	0	24	70	18	37	0.00	28.59	30.04	S	9.0	24.8	28.39	82.9	90.9	97	85
12	103	70	88.8	59.8	0	21	74	23	40	0.00	28.58	30.03	SSW	8.2	22.2	28.75	83.1	90.9	97	85
13	103	73	90.1	60.1	0	23	71	22	40	0.00	28.48	29.92	S	9.3	26.9	27.28	83.6	91.3	98	86
14	103	77	91.4	58.7	0	25	58	19	35	0.00	28.42	29.87	S	13.1	30.5	28.92	83.7	91.2	97	86
15	102	75	90.1	59.1	0	24	57	23	37	0.00	28.51	29.96	SSE	9.4	21.3	28.77	83.9	91.4	98	86
16	103	68	85.8	62.1	0	21	88	20	49	0.22	NA	NA	WSW	8.9	49.0	24.52	84.2	91.4	98	86
17	92	67	78.8	63.7	0	15	93	33	64	0.00	NA	NA	E	8.8	21.9	26.33	82.4	86.8	93	82
18	86	68	76.6	63.0	0	12	92	39	65	0.10	28.68	30.13	ENE	6.1	19.7	17.92	80.6	83.9	87	81
19	95	69	81.3	64.7	0	17	95	25	62	0.03	28.60	30.06	NA	5.4	24.1	28.23	80.9	85.5	93	79
20	93	74	82.5	66.9	0	18	87	37	61	0.02	28.41	29.86	SE	14.2	34.5	25.98	81.2	86.5	91	82
21	88	70	78.4	66.4	0	14	92	44	68	0.21	28.47	29.91	NE	12.0	48.3	26.63	80.8	85.1	90	81
22	88	67	76.6	58.8	0	12	86	25	58	0.00	28.60	30.05	NE	8.1	21.7	20.41	79.4	83.2	87	79
23	90*	65*	78.1*	61.6*	0*	12*	91*	35*	60*	0.00*	28.58*	30.04*	NA	7.0*	22.9*	26.55*	79.6*	84.9*	91*	78*
24	94	67	81.0	64.5	0	15	93	34	61	0.00	28.52	29.97	S	6.5	20.0	28.11	80.4	86.3	93	80
25	102	71	86.2	60.1	0	22	77	16	46	0.00	28.46	29.91	SSE	6.9	18.5	28.48	81.5	88.3	95	82
26	95	74	83.4	65.0	0	19	80	35	55	0.00	28.52	29.97	E	8.5	20.5	15.50	81.3	87.0	91	84
27	78	70	74.1	70.0	0	9	96	73	87	0.32	28.52	29.97	NA	5.8	18.3	10.02	80.0	82.7	86	80
28	91	71	79.6	69.8	0	16	97	45	74	0.04	28.44	29.88	NA	5.5	33.6	26.49	80.6	84.6	93	78
29	92	65	79.8	68.8	0	14	98	46	72	2.21	28.39*	29.83*	NA	7.2	65.0	23.57	81.2	85.9	93	77
30	83	66	74.1	66.6	0	9	95	60	78	0.21	NA	NA	NNE	8.5	21.6	19.33	76.2	77.6	83	74
31	85	67	75.6	67.1	0	11	90	54	76	0.00	28.59	30.04	SSE	9.4	24.0	23.67	78.1	78.0	83	74
	95*	70*	83.0*	63.2*	<- Monthly Averages ->						28.50*	29.95*	S *	9.0*	65.0*	25.39*	81.1*	86.8*	93*	81*

Temperature - Highest: 105*
Lowest: 64*

Degree Days - Total HDD: 0*
Total CDD: 550*

Number of Days With:
Tmax ≥ 90: 24* — Rainfall ≥ 0.01 inch: 10*
Tmax ≤ 32: 0* — Rainfall ≥ 0.10 inch: 7*
Tmin ≤ 32: 0* — Avg Wind Speed ≥ 10 mph: 8*
Tmin ≤ 0: 0* — Max Wind Speed ≥ 30 mph: 9*

Rainfall: Monthly Total: 3.54* in.
Greatest 24 Hr: 2.21* in.

Humidity - Highest: 98*
Lowest: 16*

* Denotes incomplete record

monthly data generated on tuesday, september 22, 2009 at 18:31 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — August 2009 — 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	87	69	77.5	67.8	0	13	95	52	74	0.12	28.56	30.01	NE	8.3	21.9	27.80	79.2	80.4	87	75
2	91	67	79.8	67.9	0	14	91	48	68	0.00	28.56	30.01	NE	7.6	17.2	27.50	79.9	83.5	93	75
3	96	73	84.0	66.7	0	19	90	31	59	0.00	28.47	29.92	S	9.4	23.7	27.26	80.8	86.7	95	80
4	98	68	83.7	65.0	0	18	86	33	56	0.00	28.48	29.93	S	8.3	19.2	27.20	80.6	87.2	95	80
5	102	72	85.2	66.8	0	22	84	26	58	0.00	28.51	29.96	SSE	7.3	38.1	26.15	81.4	89.1	97	82
6	94	73	82.5	68.3	0	19	87	33	65	0.30	28.54	29.99	SE	11.1	27.1	21.26	81.1	86.2	91	82
7	96	73	85.3	65.0	0	19	90	27	55	0.00	28.47	29.92	SSE	12.8	32.6	27.63	80.9	86.8	94	80
8	95	73	84.8	63.1	0	19	71	32	50	0.00	28.47	29.92	SSE	13.1	28.0	27.58	80.4	87.4	94	81
9	95	71	83.8	64.4	0	18	80	32	54	0.00	28.51	29.96	SSE	12.1	27.6	26.31	80.2	87.3	94	81
10	96	77	85.9	66.5	0	21	77	33	54	0.00	28.55	30.00	S	10.4	25.1	26.37	80.8	88.8	96	83
11	89	72	80.2	66.2	0	15	82	48	63	0.00	28.64	30.09	E	12.7	28.8	23.49	80.3	87.4	92	83
12	92	69	79.9	64.7	0	16	90	38	62	0.00	28.64	30.10	ESE	7.4	19.3	22.99	80.1	86.5	93	81
13	92	72	80.8	62.3	0	17	71	34	54	0.00	28.57	30.02	SE	9.6	19.7	22.71	80.0	86.5	93	82
14	93	72	82.2	66.5	0	17	82	38	61	0.00	28.51	29.96	SE	12.3	26.2	25.07	80.1	87.2	93	82
15	96	74	85.5	66.2	0	20	82	32	55	0.00	28.39	29.83	S	13.8	32.9	23.64	80.4	87.6	93	83
16	97	72	85.9	65.3	0	20	73	33	52	0.00	28.40	29.85	SSE	11.2	27.1	24.19	80.5	88.0	94	82
17	97	74	85.4	63.6	0	21	70	31	50	0.00	28.48	29.93	SE	11.6	32.5	25.97	81.1	89.1	95	83
18	88	67	78.7	63.5	0	12	90	42	61	0.01	28.56	30.01	ESE	14.3	55.2	20.43	79.9	86.3	90	83
19	95	65	80.5	63.5	0	15	93	32	61	0.07	28.36	29.80	SSW	12.4	27.7	22.20	78.9	84.5	89	79
20	93	71	81.5	58.7	0	17	78	24	48	0.00	28.45	29.89	NE	13.1	32.4	25.42	79.0	84.9	90	81
21	94	61	78.1	55.8	0	12	91	21	52	0.00	28.59	30.05	NNE	4.7	12.1	26.84	78.3	84.8	92	78
22	96	67	81.1	61.1	0	17	81	31	53	0.00	28.58	30.04	E	8.5	19.0	24.82	78.9	85.7	92	80
23	99	70	84.1	63.2	0	19	72	28	52	0.00	28.50	29.95	ESE	9.8	25.1	25.31	79.7	87.2	94	81
24	101	72	86.0	62.7	0	22	84	23	51	0.00	28.49	29.94	ESE	9.6	19.8	24.77	80.9	88.5	95	83
25	101	71	85.4	59.4	0	21	85	19	46	0.00	28.50	29.95	ESE	7.6	16.5	25.10	81.0	88.5	95	83
26	100	71	83.7	61.5	0	21	89	22	51	0.07	28.50	29.95	NA	6.3	31.9	25.43	81.0	88.7	95	83
27	90	70	78.7	67.1	0	15	96	37	71	0.05	28.56	30.01	NE	8.0	26.2	21.75	80.9	86.6	91	83
28	92	65	76.8	59.0	0	14	95	22	60	0.00	28.59	30.04	NNW	7.6	20.8	25.03	79.7	84.9	91	80
29	89	61	75.0	58.0	0	10	92	32	59	0.00	28.58	30.03	ENE	7.0	16.8	23.50	78.7	83.9	90	78
30	84	65	72.4	54.6	0	9	85	30	57	0.00	28.67	30.13	NE	10.4	21.9	24.01	78.2	82.9	88	79
31	82	63	71.4	52.9	0	7	78	36	53	0.00	28.70	30.16	ESE	7.7	16.7	18.89	77.2	81.3	87	77
	94	70	81.5	63.1	<- Monthly Averages ->						28.53	29.98	ESE*	9.9	55.2	24.73	80.0	86.3	93	81

Temperature - Highest: 102
Lowest: 61

Degree Days - Total HDD: 0
Total CDD: 520

Number of Days With:
Tmax ≥ 90: 25 — Rainfall ≥ 0.01 inch: 6
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 2
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 14
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 7

Rainfall: Monthly Total: 0.62 in.
Greatest 24 Hr: 0.30 in.

Humidity - Highest: 96
Lowest: 19

* Denotes incomplete record

monthly data generated on wednesday, november 11, 2009 at 03:24 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — September 2009 — 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	91	65	77.6	57.9	0	13	72	32	53	0.00	28.63	30.08	SE	11.8	28.2	22.53	77.4	82.0	88	77
2	95	67	81.5	59.5	0	16	80	28	51	0.00	28.54	29.99	S	9.8	23.5	22.39	78.6	83.8	90	78
3	88	69	76.6	62.2	0	13	91	41	63	0.00	28.50	29.95	NE	8.8	21.4	19.96	78.8	83.5	88	80
4	88	67	75.1	64.6	0	13	94	43	72	0.00	28.52	29.97	S	6.1	15.7	18.09	78.5	83.0	88	79
5	90	65	77.4	62.8	0	12	91	35	63	0.00	28.58	30.04	NE	7.0	20.8	18.65	78.4	82.7	88	78
6	91	69	79.8	62.6	0	15	89	31	59	0.00	28.60	30.05	ENE	6.2	16.4	23.36	79.2	84.6	91	79
7	92	68	80.0	62.0	0	15	84	33	57	0.00	28.52	29.97	ESE	8.2	22.7	19.15	79.3	84.5	90	80
8	93	68	81.1	61.1	0	16	85	31	54	0.00	28.44	29.89	SSE	9.1	24.9	19.80	79.4	84.5	90	80
9	94	67	79.6	61.5	0	16	79	27	57	0.00	28.50	29.95	NA	6.1	28.7	21.93	79.5	85.3	92	80
10	87	70	76.3	66.6	0	13	90	49	74	0.00	28.60	30.05	NNE	9.5	23.7	17.54	79.1	84.1	88	81
11	82	69	72.9	67.0	0	11	94	58	82	0.00	28.59	30.04	NA	5.2	23.3	10.54	78.5	81.8	84	80
12	72	65	67.9	65.6	0	4	96	86	92	2.16	28.52	29.97	NNE	10.0	29.6	3.82	75.6	76.1	80	73
13	71	66	68.3	65.7	0	4	96	82	92	0.69	28.50	29.95	NNE	12.4	27.4	6.09	73.9	72.5	74	72
14	73	65	68.3	63.1	0	4	91	74	84	0.00	28.52	29.97	NNE	10.5	21.1	11.04	73.6	71.7	74	70
15	79	65	70.6	63.9	0	7	94	57	80	0.00	28.53	29.98	NNE	7.9	16.7	13.48	74.1	72.6	76	70
16	75	64	69.5	62.6	0	5	96	64	80	0.01	28.58	30.03	N	10.2	27.8	8.11	73.6	71.2	73	70
17	72	64	67.8	63.1	0	3	95	76	85	0.02	28.60	30.05	N	9.8	21.2	6.62	72.6	70.0	71	68
18	76	62	68.9	60.6	0	4	94	50	76	0.00	28.65	30.10	NNE	8.2	18.4	12.08	72.7	70.6	73	68
19	80	58	68.8	59.4	0	4	96	45	75	0.00	28.63	30.09	ENE	5.6	12.8	21.38	73.1	72.6	80	67
20	87	63	73.4	62.4	0	10	97	35	73	0.00	28.48	29.93	SE	9.3	25.1	17.37	73.7	74.6	81	70
21	84	61	73.1	60.7	0	8	94	46	67	0.00	28.41	29.85	N	11.5	29.0	22.34	74.2	76.7	83	71
22	72	51	61.5	48.4	3	0	91	34	65	0.04	28.69	30.15	NNW	11.3	31.8	19.21	71.8	72.7	77	69
23	76	46	59.6	45.3	4	0	94	28	64	0.00	28.73	30.19	NW	6.0	18.0	19.84	69.6	69.6	76	64
24	74	48	59.3	48.0	4	0	93	36	69	0.00	28.72	30.18	SSE	6.2	18.6	14.50	68.9	68.6	74	65
25	80	48	63.6	51.5	1	0	95	36	70	0.42	28.64	30.10	S	9.8	49.7	21.22	68.5	69.4	76	63
26	83	54	67.9	58.6	0	4	96	34	76	0.00	28.57	30.02	NA	5.1	12.4	21.57	69.4	70.7	77	65
27	99	56	74.9	55.1	0	13	98	14	60	0.00	28.34	29.78	SW	8.3	29.7	21.94	70.7	72.6	80	66
28	76	56	66.9	38.5	0	1	62	16	38	0.00	28.66	30.12	NE	13.4	31.5	21.40	69.9	71.5	77	67
29	79	46	63.0	43.5	3	0	92	23	55	0.00	28.65	30.11	NA	7.5	20.5	21.14	68.1	69.6	77	63
30	91	59	74.6	59.9	0	10	88	32	63	0.00	28.40	29.85	SSE	14.9	33.5	20.01	69.3	72.6	80	66
	83	61	71.5	58.8	<- Monthly Averages ->						28.56	30.01	NNE*	8.9	49.7	17.24	74.3	76.2	81	72

Temperature - Highest: 99
Lowest: 46

Degree Days - Total HDD: 15
Total CDD: 232

Number of Days With:
Tmax ≥ 90: 9 — Rainfall ≥ 0.01 inch: 6
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 3
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 9
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 4

Rainfall: Monthly Total: 3.34 in.
Greatest 24 Hr: 2.16 in.

Humidity - Highest: 98
Lowest: 14

* Denotes incomplete record

monthly data generated on monday, november 30, 2009 at 13:49 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — October 2009 — 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	79	52	71.7	43.6	0	1	88	16	43	0.00	28.38	29.83	NNW	12.9	33.8	21.19	70.6	74.5	79	70
2	75	40	57.9	32.5	7	0	89	15	47	0.00	28.53	29.98	NW	6.0	13.7	21.40	67.5	69.4	76	63
3	69	48	60.0	46.7	7	0	88	36	63	0.02	28.43	29.88	SE	7.2	20.6	5.18	66.4	66.3	68	64
4	60	56	57.8	56.3	7	0	97	85	95	0.07	28.43	29.88	ESE	9.6	18.9	3.39	66.7	65.2	66	64
5	67	55	59.0	58.2	4	0	98	94	97	0.03	28.38	29.83	SE	10.6	20.1	2.67	66.2	63.8	65	63
6	70	48	61.6	49.6	6	0	98	32	68	0.04	28.48	29.93	NNE	12.1	36.0	11.99	66.6	65.5	67	63
7	61	45	54.0	48.9	12	0	98	59	84	0.20	28.57	30.02	NA	4.2	11.8	3.91	64.3	61.2	63	59
8	74	47	59.6	57.9	4	0	99	86	94	0.47	NA	NA	N	12.2	33.4	4.87	65.3	63.6	67	61
9	57	43	48.4	42.6	15	0	96	64	81	0.00	NA	NA	N	11.4	33.6	12.22	63.5	58.8	62	56
10	51	41	45.9	41.9	19	0	97	74	86	0.01	NA	NA	NNE	8.4	23.8	3.04	61.7	55.4	57	53
11	51	38	44.7	41.0	20	0	97	76	87	0.01	NA	NA	NNE	7.7	19.6	5.59	60.3	53.7	56	51
12	61	49	55.3	53.6	10	0	98	81	94	0.04	NA	NA	SE	6.4	16.3	4.91	61.2	57.7	60	55
13	63	58	60.4	59.4	5	0	98	91	97	0.03	NA	NA	ESE	8.4	18.4	3.35	62.6	61.0	63	60
14	62	52	57.5	56.5	8	0	98	91	96	0.06	NA	NA	NE	9.7	23.9	6.46	63.5	62.4	64	61
15	70	49	57.4	51.4	5	0	97	56	82	0.00	28.51	29.96	N	8.7	20.5	16.44	63.6	62.1	67	58
16	62	48	54.8	48.7	10	0	96	61	81	0.00	28.77	30.23	NA	6.9	19.6	14.29	63.0	61.2	66	57
17	67	47	55.9	46.4	8	0	96	43	73	0.00	28.91	30.37	NE	8.1	22.8	16.59	62.7	61.5	67	57
18	78	43	59.6	46.3	4	0	96	30	66	0.00	28.73	30.19	S	12.4	33.2	17.94	62.2	61.5	68	56
19	82	53	67.3	54.0	0	3	88	39	65	0.00	28.46	29.91	SSE	15.1	33.3	17.33	63.1	64.6	71	59
20	81	59	68.8	57.2	0	5	89	46	68	0.00	28.40	29.84	SSE	15.9	32.0	16.98	64.6	67.6	73	63
21	66	52	60.9	57.9	6	0	97	75	90	1.21	28.35	29.80	SE	10.7	30.4	1.80	64.5	65.0	68	62
22	53	45	49.1	40.4	16	0	87	61	72	0.00	28.43	29.88	NW	15.1	31.3	7.62	61.8	57.7	62	55
23	66	37	50.5	37.8	13	0	90	30	66	0.00	28.51	29.96	NW	10.0	29.7	17.66	59.3	54.3	59	50
24	75	41	57.0	47.0	7	0	96	44	72	0.00	28.36	29.81	S	9.9	29.0	14.70	59.1	55.8	61	50
25	66	48	56.5	49.3	8	0	97	65	77	0.00	28.40	29.85	N	12.4	40.2	12.19	60.4	58.7	63	55
26	58	38	48.6	38.3	17	0	92	43	69	0.00	28.70	30.15	N	12.4	27.6	13.51	59.1	56.3	60	53
27	66	34	49.8	36.7	15	0	98	31	66	0.00	28.33	29.77	SE	9.6	30.4	16.82	57.2	54.9	61	49
28	75*	46*	59.8*	52.0*	4*	0*	92*	51*	77*	0.00*	28.09*	29.52*	SE *	15.7*	33.5*	13.66*	58.3*	58.5*	64*	53*
29	69	44	52.0	47.9	8	0	96	75	86	1.43	28.21	29.64	W	12.0	32.3	3.09	59.6	58.3	63	53
30	57	38	46.3	34.0	18	0	91	35	64	0.00	28.45	29.90	W	8.3	19.1	17.67	56.9	52.7	58	49
31	73	35	52.3	37.5	11	0	95	26	62	0.00	28.65	30.10	W	6.3	13.2	17.32	56.2	52.8	60	47
	67*	46*	56.1*	47.5*	<- Monthly Averages ->						28.48*	29.93*	SE *	10.2*	40.2*	11.15*	62.5*	60.7*	65*	57*

Temperature - Highest: 82*
Lowest: 34*

Degree Days - Total HDD: 277*
Total CDD: 9*

Number of Days With:
Tmax ≥ 90: 0* — Rainfall ≥ 0.01 inch: 13*
Tmax ≤ 32: 0* — Rainfall ≥ 0.10 inch: 4*
Tmin ≤ 32: 0* — Avg Wind Speed ≥ 10 mph: 15*
Tmin ≤ 0: 0* — Max Wind Speed ≥ 30 mph: 13*

Rainfall: Monthly Total: 3.62* in.
Greatest 24 Hr: 1.43* in.

Humidity - Highest: 99*
Lowest: 15*

* Denotes incomplete record

monthly data generated on thursday, december 31, 2009 at 14:40 utc

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Chickasha Weather

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

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MESONET CLIMATOLOGICAL DATA SUMMARY — April 2009 — Time Zone: Midnight-Midnight CST
(CHIC) Chickasha — Nearest City: 2.0 SSE Chickasha — County: Grady
Latitude: 35-01-56 — Longitude: 97-54-52 — Elevation: 1076 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	75	36	57.5	31.2	10	0	73	21	40	0.00	28.44	29.57	S	15.0	43.3	22.53	51.4	51.8	62	42
2	62	31	47.2	36.4	18	0	95	38	67	0.00	28.47	29.61	NNW	14.0	44.1	12.82	52.1	51.4	55	46
3	71	25	50.7	31.0	17	0	98	21	56	0.00	28.60	29.74	NA	11.5	32.8	26.28	51.3	52.6	66	40
4	81	51	66.0	35.6	0	1	61	13	37	0.00	28.47	29.61	SSE	17.8	37.0	25.67	57.1	61.7	73	52
5	53	38	44.9	25.1	19	0	61	33	46	0.00	28.96	30.12	NNW	19.9	41.1	26.25	55.1	56.1	63	50
6	53	31	41.1	17.4	23	0	65	19	41	0.00	29.20	30.36	NNW	14.3	37.0	27.33	52.2	51.6	61	43
7	74	19	49.0	17.6	19	0	87	12	37	0.00	28.97	30.12	SSW	9.4	29.6	27.60	51.9	53.1	66	40
8	82	33	61.7	27.7	8	0	78	12	34	0.00	28.62	29.76	NA	7.7	23.2	25.88	56.5	60.5	74	48
9	86	50	70.1	33.6	0	3	62	9	30	0.00	28.34	29.47	W	22.0	56.7	23.28	60.6	65.7	75	59
10	63	38	51.3	35.3	14	0	87	33	56	0.00	28.88	30.03	NNW	13.4	37.3	26.02	59.6	61.9	71	55
11	72	33	54.0	35.4	13	0	97	23	57	0.37	28.92	30.08	NA	8.4	26.1	25.54	58.3	61.0	73	50
12	56	46	51.7	49.3	14	0	95	85	92	1.55	28.64	29.79	ESE	10.3	34.2	4.22	56.5	56.2	61	53
13	60	41	50.0	42.2	14	0	96	52	76	0.01	28.77	29.92	NNW	10.1	26.5	17.70	55.0	53.8	59	49
14	74	36	55.5	43.8	10	0	99	34	70	0.00	28.83	29.98	NA	4.8	16.9	26.25	56.1	56.8	69	45
15	73	46	60.3	46.6	5	0	92	32	64	0.00	28.83	29.98	SE	10.1	28.3	16.34	57.3	56.9	63	51
16	70	54	61.7	49.6	3	0	84	49	66	0.05	28.86	30.01	SE	13.1	32.5	15.32	58.4	59.2	67	53
17	65	55	58.9	52.1	5	0	89	68	78	0.07	28.86	30.01	ESE	11.5	28.1	11.10	58.4	58.4	63	55
18	75	50	61.2	52.8	3	0	96	31	77	0.02	28.77	29.92	SSE	6.4	19.8	16.38	60.6	62.2	73	57
19	64	43	54.8	45.7	12	0	93	48	73	0.00	28.92	30.07	NNW	12.5	34.9	13.02	58.5	57.9	64	54
20	79	37	59.4	41.8	7	0	96	23	59	0.00	28.92	30.07	NA	5.7	22.8	23.89	58.1	61.1	74	49
21	82	43	62.8	45.4	3	0	94	26	59	0.00	28.85	29.99	NA	4.1	15.0	27.98	61.1	67.1	82	54
22	91	47	71.7	48.8	0	4	95	18	53	0.00	28.68	29.82	NA	7.8	31.1	28.18	63.9	71.5	84	59
23	90	52	75.2	49.5	0	6	81	26	43	0.09	28.61	29.75	S	15.1	37.2	21.07	65.9	72.4	81	64
24	85	65	74.2	60.9	0	10	84	43	65	0.00	28.70	29.84	SSE	18.6	39.8	22.72	66.9	72.3	82	65
25	86	67	74.9	63.5	0	11	86	48	69	0.00	28.73	29.87	SSE	19.0	36.9	15.71	68.1	73.1	80	68
26	80	61	72.3	63.7	0	5	92	62	75	0.85	28.66	29.81	SSE	21.3	53.9	9.13	68.4	72.0	76	67
27	79	54	65.3	59.2	0	1	90	57	81	0.00	28.82	29.97	N	12.4	25.6	16.60	66.9	67.8	74	62
28	70	52	59.2	54.3	4	0	96	63	85	0.00	29.03	30.19	NNE	6.8	15.7	13.12	64.2	63.4	71	59
29	66	61	63.2	60.9	1	0	96	81	92	2.42	28.82	29.97	SSE	8.8	37.8	2.47	63.9	63.0	64	62
30	80	58	69.7	63.7	0	4	95	63	82	0.09	28.75	29.90	SE	11.0	34.3	19.70	65.5	68.6	79	60
	73	45	59.8	44.0	<- Monthly Averages ->						28.76	29.91	NA	12.1	56.7	19.67	59.3	61.4	70	54

Temperature - Highest: 91
Lowest: 19

Degree Days - Total HDD: 221
Total CDD: 46

Number of Days With:
Tmax ≥ 90: 2 — Rainfall ≥ 0.01 inch: 10
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 4
Tmin ≤ 32: 4 — Avg Wind Speed ≥ 10 mph: 20
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 18

Rainfall: Monthly Total: 5.52 in.
Greatest 24 Hr: 2.42 in.

Humidity - Highest: 99
Lowest: 9

* Denotes incomplete record

monthly data generated on wednesday, november 11, 2009 at 14:55 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — May 2009 — Time Zone: Midnight-Midnight CST

(CHIC) Chickasha — Nearest City: 2.0 SSE Chickasha — County: Grady

Latitude: 35-01-56 — Longitude: 97-54-52 — Elevation: 1076 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	81	53	66.0	62.3	0	2	94	66	88	0.00	28.80	29.95	S	10.4	26.2	13.98	69.2	70.2	80	62
2	56	52	53.8	51.7	11	0	97	86	93	1.60	28.76	29.91	NNE	8.3	44.1	4.22	62.1	59.2	62	58
3	61	52	56.4	52.3	8	0	96	72	87	0.00	28.76	29.90	N	7.8	19.3	5.72	60.2	58.9	61	58
4	60	46	55.2	51.8	12	0	97	69	89	0.09	28.84	29.99	NA	4.4	13.1	8.86	59.4	58.6	63	53
5	61	55	59.1	57.9	7	0	97	94	96	1.29	28.73	29.87	ESE	5.7	31.2	2.57	59.8	58.8	60	57
6	80	61	66.8	61.1	0	5	98	50	84	0.17	28.69	29.84	NA	4.0	16.6	21.97	64.3	67.3	78	60
7	84	57	70.6	67.5	0	5	98	72	90	0.02	28.64	29.78	NA	6.0	19.0	12.65	68.0	71.2	80	64
8	85	72	76.5	68.9	0	13	93	61	78	0.00	28.54	29.68	N	10.6	28.7	20.64	72.9	75.7	82	70
9	72	60	65.5	46.0	0	1	71	36	50	0.00	28.90	30.05	NNE	10.2	26.2	16.06	70.8	67.9	73	64
10	61	56	59.2	54.6	6	0	95	70	85	0.24	28.94	30.09	NE	7.3	19.6	4.49	67.0	63.4	65	61
11	62	53	57.1	54.3	8	0	96	82	90	1.35	28.97	30.12	ESE	6.9	22.1	5.79	63.2	61.1	65	58
12	73	58	64.2	61.7	0	0	97	62	92	0.11	28.73	29.88	SE	11.0	32.7	7.99	63.8	64.3	69	60
13	88	66	76.8	66.4	0	12	90	55	71	0.24	28.56	29.70	S	15.7	37.6	27.31	68.9	71.1	79	63
14	77	64	70.8	62.3	0	5	89	61	75	0.00	28.84	29.99	SE	10.2	22.3	11.68	70.3	70.3	73	66
15	84*	62*	74.3*	66.1*	0*	8*	94*	59*	77*	0.26*	28.75*	29.89*	SSE*	13.0*	41.2*	24.25*	72.2*	72.7*	79*	67*
16	70	49	62.2	50.2	5	0	93	32	68	0.10	29.04	30.19	NNE	9.3	26.3	17.09	69.9	66.7	71	61
17	73	45	58.9	43.0	6	0	95	25	62	0.00	29.12	30.28	NA	4.6	14.4	31.01	68.5	65.5	77	55
18	77	46	62.1	48.6	4	0	97	33	66	0.00	29.07	30.22	NA	6.9	22.0	30.70	68.7	66.8	77	57
19	79	50	65.0	51.0	0	0	92	37	64	0.00	29.04	30.19	SSE	7.0	19.4	31.01	69.0	71.0	85	59
20	80	49	65.8	51.9	0	0	95	34	65	0.00	28.95	30.10	SSE	7.3	23.0	30.67	69.5	74.0	87	62
21	83	51	68.0	53.1	0	2	96	31	64	0.00	28.90	30.05	NA	5.5	17.0	30.73	70.9	76.8	91	64
22	86	59	72.1	58.5	0	8	94	30	67	0.00	28.88	30.04	NA	4.4	17.8	26.67	73.4	80.3	92	70
23	85	62	71.4	62.1	0	8	95	44	75	0.04	28.84	29.99	NA	4.3	16.8	16.22	73.8	78.9	87	72
24	85	58	71.1	60.0	0	7	98	33	72	0.00	28.77	29.92	NA	4.5	23.5	25.34	74.8	79.6	91	69
25	84	60	70.7	60.6	0	7	96	42	73	0.00	28.63	29.77	NA	3.7	32.2	21.01	75.0	80.0	90	72
26	83	61	70.3	60.6	0	7	96	49	73	0.85	28.62	29.76	NA	6.7	30.0	25.00	74.8	76.8	86	70
27	71	54	62.5	53.0	2	0	95	51	73	0.00	28.76	29.91	NA	8.6	23.3	23.04	71.3	69.2	74	64
28	82	51	66.3	51.0	0	1	97	25	66	0.00	28.81	29.96	NA	4.9	20.9	31.66	71.0	73.1	87	61
29	88	51	70.2	51.2	0	4	97	19	61	0.00	28.90	30.05	NA	3.0	14.5	31.55	73.5	78.6	93	65
30	90	53	72.5	57.0	0	6	96	30	64	0.00	28.84	29.99	NA	5.2	17.2	31.54	75.3	81.6	95	69
31	92	60	76.2	57.2	0	11	91	24	57	0.00	28.77	29.91	SSE	7.1	20.8	31.01	76.6	83.4	96	71
	77*	56*	66.4*	56.6*	<- Monthly Averages ->						28.82*	29.97*	NA	7.2*	44.1*	20.08*	69.3*	70.7*	79*	63*

Temperature - Highest: 92*
Lowest: 45*

Degree Days - Total HDD: 71*
Total CDD: 114*

Number of Days With:
Tmax ≥ 90: 2* — Rainfall ≥ 0.01 inch: 13*
Tmax ≤ 32: 0* — Rainfall ≥ 0.10 inch: 10*
Tmin ≤ 32: 0* — Avg Wind Speed ≥ 10 mph: 7*
Tmin ≤ 0: 0* — Max Wind Speed ≥ 30 mph: 7*

Rainfall: Monthly Total: 6.36* in.
Greatest 24 Hr: 1.60* in.

Humidity - Highest: 98*
Lowest: 19*

* Denotes incomplete record

monthly data generated on wednesday, november 11, 2009 at 14:55 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — June 2009 — Time Zone: Midnight-Midnight CST
(CHIC) Chickasha — Nearest City: 2.0 SSE Chickasha — County: Grady
Latitude: 35-01-56 — Longitude: 97-54-52 — Elevation: 1076 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	89	65	76.3	62.2	0	12	92	35	64	0.00	28.73	29.87	SSE	9.7	37.6	27.30	77.6	84.3	95	76
2	82	65	71.4	64.0	0	8	94	45	79	0.39	28.77	29.91	NA	5.7	32.1	19.52	76.3	78.1	84	74
3	72	59	66.7	61.6	0	0	96	66	84	0.42	28.88	30.03	N	8.1	21.3	8.97	73.3	71.5	75	67
4	80	53	67.2	53.8	0	2	93	35	66	0.00	28.90	30.05	NA	5.7	20.0	30.60	72.7	NA	NA	NA
5	84	55	71.3	58.6	0	5	97	42	68	0.00	28.82	29.97	NA	6.6	26.5	30.10	74.2	NA	NA	NA
6	91	64	79.3	61.2	0	13	88	30	56	0.00	28.66	29.81	S	14.1	34.8	27.82	75.3	NA	NA	NA
7	91	66	81.6	62.3	0	13	87	26	54	0.01	28.57	29.71	SSE	14.1	40.0	22.92	76.5	NA	NA	NA
8	89	70	79.9	65.6	0	14	86	46	63	0.00	28.65	29.80	SSE	6.8	21.4	26.22	78.2	84.8	96	74
9	95	69	82.2	67.5	0	17	90	37	63	0.00	28.66	29.80	SSW	13.2	31.4	25.72	79.1	85.6	95	77
10	81	61	71.3	64.5	0	6	96	57	80	0.20	28.66	29.80	SSW	7.4	40.3	6.95	76.8	78.5	85	70
11	86	62	72.9	64.6	0	9	96	44	78	0.01	28.68	29.82	NA	3.5	12.3	25.15	75.4	78.0	90	68
12	93	70	80.8	69.2	0	16	94	41	71	0.00	28.67	29.81	SE	5.9	21.2	26.78	78.8	85.0	98	74
13	90	70	80.3	70.0	0	15	92	54	72	0.02	28.77	29.91	E	9.0	42.3	24.26	80.7	87.4	98	78
14	91	68	80.3	67.7	0	15	88	50	67	0.02	28.76	29.90	SSE	7.9	28.4	22.55	80.1	85.9	96	77
15	93	68	80.7	68.3	0	15	89	43	68	0.50	28.68	29.83	SE	10.9	33.1	26.56	79.4	82.3	88	76
16	93	75	84.3	68.6	0	19	80	45	60	0.00	28.64	29.79	SSE	12.3	31.3	29.47	79.9	85.4	98	75
17	94	72	82.5	68.2	0	18	85	43	64	0.00	28.71	29.86	S	11.6	29.8	28.95	80.5	87.9	99	78
18	93	72	83.3	68.1	0	18	88	40	62	0.00	28.68	29.83	SSE	13.2	28.3	29.57	80.8	88.9	100	79
19	92	75	82.9	69.6	0	19	93	47	65	0.06	28.68	29.83	S	12.2	29.6	19.42	81.0	88.0	95	82
20	91	74	82.7	69.5	0	18	95	45	67	0.01	28.67	29.81	SSE	11.5	28.6	26.95	80.7	88.0	97	79
21	96	77	85.9	69.2	0	22	80	40	59	0.00	28.65	29.79	SSE	11.5	29.1	27.92	81.6	91.0	102	81
22	99	72	85.8	67.3	0	21	86	31	57	0.00	28.67	29.82	SSE	7.0	19.2	27.93	82.8	92.8	105	83
23	99	69	84.8	65.1	0	19	91	24	57	0.00	28.73	29.87	NA	5.2	18.1	30.41	83.5	94.2	107	83
24	99	68	84.2	66.4	0	18	93	29	60	0.00	28.78	29.92	NA	3.3	18.5	29.50	84.2	95.1	108	84
25	100	68	84.7	65.1	0	19	93	24	58	0.00	28.77	29.92	NA	4.3	15.9	29.78	84.5	95.2	108	84
26	99	67	84.6	64.0	0	18	93	29	55	0.00	28.73	29.87	NA	5.8	21.7	29.91	84.8	95.2	107	85
27	102	71	87.1	65.7	0	22	91	26	54	0.00	28.71	29.85	SE	6.9	23.0	29.35	85.4	95.8	108	86
28	89	69	80.7	67.6	0	14	91	32	67	0.46	28.81	29.96	ENE	7.6	26.5	23.23	84.3	90.9	97	84
29	90	61	77.5	65.4	0	11	95	41	69	0.00	28.74	29.88	NA	3.7	11.7	20.49	81.0	84.6	93	76
30	98	65	80.8	64.0	0	16	97	25	63	0.00	28.69	29.83	NA	4.1	19.2	29.06	81.2	88.8	104	77
	91	67	79.8	65.5	<- Monthly Averages ->						28.72	29.86	NA	8.3	42.3	25.45	79.7	87.0*	97*	78*

Temperature - Highest: 102
Lowest: 53

Degree Days - Total HDD: 0
Total CDD: 432

Number of Days With:
Tmax ≥ 90: 21 — Rainfall ≥ 0.01 inch: 11
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 5
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 10
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 9

Rainfall: Monthly Total: 2.10 in.
Greatest 24 Hr: 0.50 in.

Humidity - Highest: 97
Lowest: 24

* Denotes incomplete record

monthly data generated on Tuesday, September 22, 2009 at 18:30 UTC

MESONET CLIMATOLOGICAL DATA SUMMARY — July 2009 — Time Zone: Midnight-Midnight CST
(CHIC) Chickasha — Nearest City: 2.0 SSE Chickasha — County: Grady
Latitude: 35-01-56 — Longitude: 97-54-52 — Elevation: 1076 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	96	65	81.6	63.3	0	16	86	30	57	0.00	28.73	29.88	E	5.0	16.5	29.27	81.8	91.4	105	80
2	99	68	83.8	64.0	0	19	93	26	57	0.00	28.82	29.97	NA	4.7	17.1	29.00	82.7	NA	NA	NA
3	101	69	86.6	63.1	0	20	90	24	51	0.00	28.83	29.98	NA	8.7	24.9	26.30	83.1	NA	NA	NA
4	99	72	83.1	67.9	0	21	97	33	64	1.07	28.75	29.90	S	9.1	50.4	16.98	82.4	NA	NA	NA
5	83	66	75.4	66.4	0	9	95	49	75	0.03	28.82	29.97	N	7.1	21.1	21.47	80.1	NA	NA	NA
6	84	63	73.1	63.0	0	8	95	46	73	0.00	28.82	29.96	NA	4.6	16.7	26.47	78.5	NA	NA	NA
7	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00*	NA	NA	NA	NA	17.5*	NA	NA	NA	NA	NA
8	94	71	81.7	68.0	0	17	90	48	65	0.00	28.67	29.82	SE	10.9	33.2	29.18	83.3	88.2	98	79
9	99	73	85.6	68.7	0	21	84	33	60	0.00	28.73	29.87	SE	13.0	30.3	29.00	84.5	90.3	100	81
10	102	77	89.9	64.3	0	25	75	29	46	0.00	28.80	29.95	SSE	13.7	29.2	29.68	85.6	92.3	102	84
11	102	75	88.4	63.2	0	23	68	25	45	0.00	28.89	30.04	S	9.5	23.1	28.34	86.6	93.7	104	85
12	105	73	89.2	62.1	0	24	70	21	43	0.00	28.86	30.01	SSW	8.9	19.6	29.39	87.4	94.6	105	85
13	104	77	90.5	61.5	0	25	63	22	40	0.00	28.77	29.92	SSW	8.9	19.2	28.94	88.6	96.3	106	87
14	103	78	90.1	61.1	0	25	61	24	40	0.00	28.73	29.87	SSW	12.4	30.1	29.37	88.6	96.2	105	88
15	103	78	89.6	62.9	0	26	61	23	43	0.00	28.82	29.97	S	9.1	19.8	27.82	88.9	96.6	107	87
16	99	75	84.3	65.8	0	22	94	29	56	0.19	28.84	29.99	ESE	7.9	31.3	18.58	87.9	94.2	102	89
17	88	69	77.6	62.2	0	14	94	32	63	0.01	28.95	30.10	NA	6.2	33.5	27.86	85.6	90.2	100	82
18	90	63	77.0	60.6	0	11	95	30	62	0.00	28.97	30.13	NA	2.9	11.3	25.24	84.0	89.7	100	80
19	96	62	80.2	59.5	0	14	94	21	56	0.00	28.91	30.06	NA	4.0	16.5	29.17	84.4	91.4	104	80
20	95	71	82.5	64.7	0	18	84	29	58	0.00	28.73	29.87	S	9.6	23.5	25.77	85.2	92.5	102	85
21	89	70	78.1	66.4	0	14	94	40	70	0.37	28.76	29.90	NNE	8.8	24.6	24.70	83.5	86.8	94	82
22	88	63	74.8	57.6	0	10	91	26	61	0.00	28.89	30.04	NA	5.8	18.1	26.69	81.1	85.5	98	75
23	93	57	76.7	56.3	0	10	95	24	56	0.00	28.88	30.03	NA	5.3	16.9	29.22	81.5	88.0	101	76
24	96	66	82.4	62.8	0	16	91	30	55	0.00	28.82	29.96	SSW	7.6	22.7	28.33	83.0	90.5	102	80
25	103	66	86.2	58.7	0	19	92	16	47	0.00	28.77	29.91	NA	5.0	16.2	27.16	84.3	92.4	104	82
26	87	75	79.3	68.2	0	16	87	46	69	0.07	28.84	29.99	E	6.6	26.2	9.42	82.9	86.4	92	83
27	77	68	73.0	69.3	0	8	96	73	88	0.48	28.82	29.97	NA	4.9	20.2	6.33	79.9	80.6	83	77
28	91	71	78.7	68.7	0	16	96	44	74	0.00	28.73	29.87	NA	4.1	22.6	25.07	80.5	83.1	93	75
29	88	70	78.1	68.4	0	14	92	51	74	0.31	28.70	29.85	E	5.4	22.7	19.35	81.3	85.3	95	77
30	85	67	75.0	66.3	0	11	95	53	76	0.83	28.78	29.92	N	8.4	31.9	21.15	79.5	81.3	87	76
31	88	62	75.5	61.6	0	10	96	31	67	0.00	28.89	30.05	NA	5.4	17.8	27.17	79.2	81.4	92	72
	94*	69*	81.6*	63.9*	<- Monthly Averages ->						28.81*	29.96*	NA	7.4*	50.4*	25.08*	83.5*	89.6*	99*	81*

Temperature - Highest: 105*
Lowest: 57*

Degree Days - Total HDD: 0*
Total CDD: 501*

Number of Days With:
Tmax ≥ 90: 20* — Rainfall ≥ 0.01 inch: 9*
Tmax ≤ 32: 0* — Rainfall ≥ 0.10 inch: 6*
Tmin ≤ 32: 0* — Avg Wind Speed ≥ 10 mph: 4*
Tmin ≤ 0: 0* — Max Wind Speed ≥ 30 mph: 7*

Rainfall: Monthly Total: 3.36* in.
Greatest 24 Hr: 1.07* in.

Humidity - Highest: 97*
Lowest: 16*

* Denotes incomplete record

monthly data generated on tuesday, september 22, 2009 at 18:31 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — August 2009 — Time Zone: Midnight-Midnight CST

(CHIC) Chickasha — Nearest City: 2.0 SSE Chickasha — County: Grady

Latitude: 35-01-56 — Longitude: 97-54-52 — Elevation: 1076 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	90	70	78.8	67.5	0	15	94	43	71	0.00	28.84	29.99	N	6.2	18.8	24.88	80.3	84.9	97	76
2	92	67	80.2	65.0	0	14	90	38	63	0.00	28.86	30.01	NA	4.5	14.5	27.83	81.0	87.8	101	77
3	97	71	84.2	67.4	0	19	94	32	60	0.61	28.77	29.91	S	10.4	28.6	26.98	81.1	86.1	93	80
4	100	69	85.6	65.1	0	19	88	30	53	0.00	28.77	29.91	SSW	9.4	27.7	27.00	80.8	84.7	95	76
5	101	71	84.3	67.9	0	21	90	29	61	0.00	28.82	29.96	NA	7.5	31.6	24.60	81.9	87.6	100	78
6	93	70	79.3	68.9	0	16	92	44	72	0.45	28.86	30.01	SE	7.6	24.1	19.97	80.5	84.6	93	79
7	99	75	85.9	67.9	0	22	89	30	59	0.00	28.80	29.94	SSE	11.7	25.8	26.94	81.3	84.9	94	78
8	97	77	86.4	65.6	0	22	72	30	52	0.00	28.79	29.94	SSE	14.5	28.3	27.29	82.1	87.0	99	78
9	97	76	85.3	67.0	0	22	76	35	57	0.00	28.83	29.98	SSE	11.6	26.1	26.10	83.2	89.4	101	80
10	100	71	85.4	67.1	0	20	89	29	58	0.00	28.87	30.02	SSE	10.0	26.5	26.29	84.8	91.9	104	82
11	88	69	76.9	66.2	0	14	93	46	71	0.04	28.96	30.12	ESE	6.8	21.3	22.06	83.8	89.6	100	82
12	93	66	78.8	61.6	0	14	95	27	62	0.00	28.95	30.10	NA	4.9	19.0	27.23	84.1	90.5	103	80
13	92	63	77.8	61.4	0	13	92	36	61	0.00	28.89	30.04	NA	7.2	21.9	24.45	83.4	89.8	102	80
14	94	66	80.8	64.9	0	15	91	36	62	0.00	28.84	29.99	SE	9.2	24.1	24.08	84.1	90.6	101	81
15	97	74	85.8	64.5	0	21	81	31	52	0.00	28.71	29.86	SSE	15.7	35.4	20.72	84.2	90.2	98	84
16	102	77	88.7	64.9	0	24	68	28	48	0.00	28.72	29.86	SSE	15.3	32.1	25.67	85.4	91.9	102	84
17	100	73	86.7	65.6	0	21	83	28	53	0.00	28.80	29.95	SE	10.9	38.5	23.97	86.7	93.0	102	85
18	86	67	75.5	66.3	0	11	94	46	75	0.21	28.88	30.03	E	7.1	23.2	16.13	83.4	85.6	91	82
19	95	65	80.0	66.7	0	15	94	39	67	0.47	28.68	29.83	SSE	10.0	47.1	21.93	80.6	81.2	87	74
20	87	66	78.6	62.3	0	12	87	31	60	0.03	28.75	29.90	S	8.1	25.5	19.17	80.3	81.9	91	76
21	93	59	76.6	60.1	0	11	96	27	63	0.00	28.89	30.04	NA	3.9	15.9	26.15	79.8	83.9	97	72
22	88	64	76.1	60.1	0	11	91	38	61	0.00	28.92	30.07	NA	6.0	18.9	25.59	80.6	86.0	97	76
23	95	66	80.3	62.2	0	15	77	35	56	0.00	28.83	29.98	SE	8.9	21.1	24.12	81.1	87.0	98	78
24	100	71	83.8	65.6	0	21	82	25	58	0.00	28.82	29.97	SE	9.3	19.7	24.82	82.8	89.4	101	80
25	104	69	84.1	64.7	0	21	91	17	58	0.00	28.81	29.96	SE	7.0	16.7	22.34	83.8	90.0	101	81
26	100	67	81.3	68.4	0	19	97	30	69	2.42	28.81	29.95	SE	8.6	72.0	20.61	83.9	89.0	101	82
27	83	68	74.2	68.2	0	10	96	63	83	0.21	28.86	30.01	NA	5.6	21.6	16.08	76.3	78.5	85	72
28	82	64	72.0	62.2	0	8	95	38	75	0.00	28.88	30.03	NA	5.9	19.4	24.70	76.1	78.2	87	72
29	82	62	71.1	61.7	0	7	96	48	75	0.00	28.88	30.03	NA	5.1	19.0	21.72	74.7	75.4	83	69
30	78	61	68.1	57.2	0	4	92	45	70	0.00	28.98	30.13	NE	6.6	19.4	22.30	73.0	72.5	80	66
31	78	57	67.0	52.4	0	3	86	37	62	0.00	29.02	30.18	NA	4.1	13.2	23.50	72.2	71.9	81	65
	93	68	80.0	64.4	<- Monthly Averages ->						28.84	29.99	NA	8.4	72.0	23.72	81.2	85.6	96	78

Temperature - Highest: 104
Lowest: 57

Degree Days - Total HDD: 0
Total CDD: 482

Number of Days With:
Tmax ≥ 90: 22 — Rainfall ≥ 0.01 inch: 8
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 6
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 9
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 6

Rainfall: Monthly Total: 4.44 in.
Greatest 24 Hr: 2.42 in.

Humidity - Highest: 97
Lowest: 17

* Denotes incomplete record

monthly data generated on wednesday, november 11, 2009 at 03:24 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — September 2009 — Time Zone: Midnight-Midnight CST
(CHIC) Chickasha — Nearest City: 2.0 SSE Chickasha — County: Grady
Latitude: 35-01-56 — Longitude: 97-54-52 — Elevation: 1076 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	86	58	71.8	59.7	0	7	94	44	68	0.00	28.97	30.12	NA	8.1	23.7	20.56	72.8	72.2	79	67
2	87	66	75.4	61.7	0	12	82	45	64	0.00	28.87	30.02	SE	10.5	26.2	22.18	73.9	73.6	81	68
3	74	65	68.1	63.1	0	4	96	72	84	0.25	28.83	29.97	ESE	6.1	20.2	9.60	72.9	71.2	75	68
4	85	64	73.6	65.1	0	10	94	51	77	0.01	28.82	29.97	SE	4.5	11.5	20.52	74.3	74.8	84	67
5	88	64	75.4	65.3	0	11	96	43	73	0.00	28.89	30.04	NA	3.9	15.7	18.80	76.3	76.7	85	70
6	90	65	76.8	65.5	0	12	96	40	71	0.00	28.91	30.06	NA	3.7	11.8	21.76	77.3	78.9	89	71
7	93	65	78.9	64.4	0	14	96	35	65	0.00	28.84	29.98	NA	5.7	19.2	22.09	77.8	81.7	93	72
8	95	67	80.7	62.9	0	16	86	31	58	0.00	28.75	29.90	SE	8.5	25.2	18.85	77.5	82.8	91	75
9	95	66	79.8	63.8	0	16	90	29	63	0.19	28.80	29.94	NA	5.0	16.2	19.92	78.2	84.0	95	75
10	83	69	74.4	68.7	0	11	95	63	83	0.01	28.89	30.04	NNE	5.9	19.7	12.77	77.9	79.0	83	75
11	81	69	73.1	68.4	0	10	96	63	86	0.09	28.89	30.04	NA	3.6	13.5	10.65	77.2	77.1	82	74
12	75	66	70.3	67.4	0	6	95	79	91	0.81	28.81	29.96	NA	5.8	20.3	5.11	75.5	74.1	77	72
13	73	65	68.8	65.7	0	4	95	76	90	0.48	28.79	29.94	NE	8.4	24.0	5.77	73.4	71.8	74	70
14	70	64	66.6	63.5	0	2	96	82	90	0.22	28.80	29.95	NNE	7.1	18.0	4.22	71.5	69.2	71	68
15	75	67	70.6	65.0	0	6	92	69	83	0.00	28.81	29.96	N	7.3	20.2	10.64	72.3	71.2	75	68
16	78	65	70.3	62.9	0	6	91	56	78	0.20	28.84	29.99	N	11.5	29.5	9.52	72.0	70.2	74	68
17	76	64	69.5	63.7	0	5	95	65	83	0.72	28.86	30.01	N	9.1	22.4	6.23	70.7	69.1	72	67
18	75	66	69.9	61.9	0	5	89	63	76	0.00	28.93	30.08	N	6.6	19.3	7.91	71.1	69.7	73	67
19	79	62	68.7	62.6	0	6	96	62	82	0.16	28.93	30.08	NA	3.7	12.2	12.00	71.9	71.0	77	67
20	85	60	71.4	63.0	0	7	97	44	78	0.00	28.80	29.95	NA	5.5	18.2	19.85	72.7	72.3	80	66
21	86	65	74.5	64.3	0	10	89	54	72	0.00	28.70	29.84	N	10.4	28.2	14.75	73.7	72.8	79	69
22	70	50	60.9	51.9	5	0	96	47	74	0.11	28.97	30.12	NA	7.2	25.3	14.61	70.1	67.3	73	63
23	72	47	58.0	48.3	6	0	97	35	74	0.00	29.03	30.19	NA	3.6	13.7	18.94	67.3	65.2	75	58
24	69	48	56.6	50.5	7	0	97	48	82	0.01	29.03	30.18	NA	3.1	12.5	8.65	65.6	62.7	68	58
25	78	45	63.2	49.7	3	0	98	32	67	0.00	28.96	30.11	NA	7.2	28.7	21.05	65.6	66.3	78	56
26	85	52	68.3	55.0	0	3	97	29	67	0.00	28.85	30.00	NA	4.8	15.0	21.20	68.5	71.9	83	62
27	95	53	73.7	57.7	0	9	97	23	65	0.00	28.63	29.78	NA	6.1	25.1	21.38	70.3	74.3	86	64
28	74	48	64.6	38.8	4	0	92	19	44	0.00	28.97	30.12	NA	7.4	24.3	21.06	69.9	73.3	82	66
29	78	42	60.0	41.9	5	0	96	19	60	0.00	28.97	30.12	NA	4.1	17.8	21.06	67.8	70.0	81	61
30	83	53	69.8	59.4	0	3	81	55	70	0.00	28.74	29.89	SSE	14.6	36.8	17.00	69.1	71.6	81	64
	81	60	70.1	60.1	<- Monthly Averages ->						28.86	30.01	NA	6.6	36.8	15.29	72.5	72.9	80	67

Temperature - Highest: 95
Lowest: 42

Degree Days - Total HDD: 29
Total CDD: 195

Number of Days With:
Tmax ≥ 90: 5 — Rainfall ≥ 0.01 inch: 13
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 9
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 4
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 1

Rainfall: Monthly Total: 3.26 in.
Greatest 24 Hr: 0.81 in.

Humidity - Highest: 98
Lowest: 19

* Denotes incomplete record

monthly data generated on monday, november 30, 2009 at 13:49 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — October 2009 — Time Zone: Midnight-Midnight CST
(CHIC) Chickasha — Nearest City: 2.0 SSE Chickasha — County: Grady
Latitude: 35-01-56 — Longitude: 97-54-52 — Elevation: 1076 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	84*	53*	71.8*	49.0*	0*	3*	84*	16*	51*	0.00*	28.66*	29.80*	NNW*	15.1*	36.0*	18.91*	72.4*	75.7*	84*	69*
2	74	38	55.7	35.4	9	0	93	17	56	0.00	28.82	29.97	NA	4.0	17.5	21.34	68.2	69.3	79	60
3	75	39	57.9	42.3	8	0	96	26	62	0.00	28.76	29.90	NA	4.9	20.5	12.38	66.3	66.5	74	59
4	59	55	56.5	54.9	8	0	96	77	94	0.33	28.76	29.91	E	7.0	17.1	2.71	65.4	63.6	67	62
5	64	55	58.0	56.6	6	0	97	91	95	0.03	28.71	29.86	SE	9.3	19.7	2.79	63.8	61.5	63	60
6	70	46	60.3	52.0	7	0	97	37	77	0.10	28.77	29.91	NA	9.2	30.3	11.01	65.1	63.2	65	58
7	61	42	53.3	49.2	14	0	98	53	87	0.50	28.88	30.03	NA	4.9	20.3	6.06	61.2	58.0	61	53
8	82	48	61.9	59.4	0	0	98	70	92	2.68	28.66	29.80	N	11.7	38.7	7.79	63.8	63.2	71	59
9	52	45	48.0	42.7	17	0	93	70	82	0.12	28.91	30.06	N	10.6	25.9	7.63	56.9	55.8	60	53
10	57	38	45.8	40.7	17	0	98	57	83	0.00	29.04	30.20	NA	6.6	21.9	11.13	53.5	52.1	59	47
11	51	40	46.0	40.8	19	0	95	71	82	0.00	29.02	30.17	NA	4.9	16.1	6.82	51.9	50.3	55	46
12	61	50	55.7	53.9	10	0	97	85	94	0.06	28.89	30.04	ESE	4.5	12.4	5.30	56.1	55.5	60	52
13	62	57	59.2	57.6	5	0	97	87	95	0.04	28.88	30.03	ENE	4.8	16.3	4.60	59.4	59.1	62	57
14	58	52	54.6	53.4	10	0	97	91	96	0.06	28.78	29.92	NNE	5.6	17.0	4.30	59.6	58.4	60	57
15	63	46	53.4	49.3	10	0	97	65	87	0.01	28.81	29.96	N	7.8	21.7	12.75	58.9	57.5	64	54
16	64	45	53.0	47.2	10	0	96	55	82	0.00	29.07	30.22	NA	5.4	15.1	15.58	58.2	56.7	64	51
17	63	40	50.7	43.9	14	0	98	47	80	0.00	29.22	30.38	NA	5.3	21.8	18.46	57.6	55.8	63	50
18	72	38	55.3	46.6	10	0	97	48	75	0.01	29.07	30.23	SSE	10.9	28.9	17.71	56.4	54.8	64	47
19	77	55	65.1	55.1	0	1	89	52	72	0.00	28.80	29.95	SSE	15.2	33.7	17.11	59.9	60.5	69	54
20	78	60	68.0	56.7	0	4	84	49	68	0.00	28.74	29.88	SSE	17.2	39.9	17.13	62.7	64.6	73	58
21	66	57	62.3	59.1	3	0	97	75	90	1.63	28.68	29.83	NA	10.7	32.4	1.81	62.4	62.1	63	60
22	58	45	50.4	44.5	14	0	97	69	80	0.01	28.67	29.82	NW	12.2	24.6	4.92	58.4	55.7	60	51
23	61	37	48.2	38.5	16	0	97	43	71	0.00	28.78	29.92	NA	9.2	26.2	17.46	55.0	52.3	60	47
24	73	34	54.8	42.8	12	0	99	38	69	0.00	28.69	29.84	NA	9.2	29.4	14.63	54.5	52.6	60	45
25	67	51	58.3	50.1	6	0	87	65	75	0.00	28.71	29.86	N	8.8	30.4	6.70	57.4	56.1	61	52
26	57	44	50.3	39.9	14	0	85	44	69	0.00	28.97	30.12	N	10.3	28.6	13.16	56.1	53.4	58	50
27	63	33	49.1	38.2	17	0	98	38	70	0.00	28.66	29.80	NA	7.0	24.8	16.85	55.0	53.1	63	45
28	68	47	57.9	51.8	8	0	95	62	80	0.00	28.47	29.60	SE	15.6	37.8	9.08	55.8	54.9	60	49
29	72	45	56.3	51.8	7	0	95	70	85	1.57	28.47	29.61	W	11.5	37.7	3.11	58.6	57.7	61	52
30	56	38	48.1	34.3	18	0	87	40	60	0.00	28.73	29.88	W	9.7	25.1	16.06	53.4	51.6	58	48
31	71	34	50.4	38.8	13	0	97	30	69	0.00	28.94	30.09	NA	3.3	14.1	16.10	53.1	51.8	63	44
	66*	45*	55.4*	47.6*	<- Monthly Averages ->						28.81*	29.95*	NA	8.8*	39.9*	11.01*	59.3*	58.2*	64*	53*

Temperature - Highest: 84*
Lowest: 33*

Degree Days - Total HDD: 302*
Total CDD: 9*

Number of Days With:
Tmax ≥ 90: 0* — Rainfall ≥ 0.01 inch: 14*
Tmax ≤ 32: 0* — Rainfall ≥ 0.10 inch: 7*
Tmin ≤ 32: 0* — Avg Wind Speed ≥ 10 mph: 11*
Tmin ≤ 0: 0* — Max Wind Speed ≥ 30 mph: 9*

Rainfall: Monthly Total: 7.15* in.
Greatest 24 Hr: 2.68* in.

Humidity - Highest: 99*
Lowest: 16*

* Denotes incomplete record

monthly data generated on thursday, december 31, 2009 at 14:40 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 — March 2009 — 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	49	15	32.6	10.9	33	0	70	21	43	0.00	29.16	30.53	NA	6.7	17.9	20.85	46.9	46.0	54	39
2	60	28	42.4	16.4	21	0	56	20	37	0.00	28.86	30.22	ESE	14.5	25.8	15.84	47.8	47.2	54	42
3	75	38	54.0	30.4	8	0	64	23	42	0.00	28.67	30.02	ESE	17.9	33.5	17.88	50.2	51.7	59	45
4	85	43	63.1	40.6	1	0	83	20	49	0.00	28.55	29.90	SSE	14.0	30.9	19.61	53.4	56.8	65	49
5	90	55	71.1	38.5	0	8	69	13	35	0.00	28.51	29.86	SSW	12.3	24.6	17.40	56.6*	61.5*	69*	56*
6	82*	51*	68.6*	46.9*	0*	2*	63*	30*	46*	0.00*	28.57*	29.92*	SSE*	13.3*	28.8*	15.48*	57.4*	62.3*	68*	57*
7	76	60	68.3	53.5	0	3	81	45	60	0.00	28.46	29.80	S	18.0	31.1	8.73	58.7	62.9	65	60
8	72	35	57.7	29.5	11	0	84	13	38	0.00	28.60	29.95	ESE	9.5	38.8	20.84	58.5	62.3	69	55
9	82	55	68.5	47.7	0	4	76	31	48	0.00	28.49	29.84	S	15.4	33.5	13.58	59.2	63.3	69	58
10	78	42	61.6	42.0	5	0	80	24	51	0.00	28.56	29.91	SSW	15.9	41.6	10.95	60.3	64.1	69	59
11	47	32	39.4	16.6	26	0	62	25	40	0.00	29.01	30.37	NNE	15.4	29.1	14.43	54.9	55.7	59	52
12	39	31	35.6	32.2	30	0	98	60	88	0.13	28.97	30.34	NA	NA	18.3*	5.47	52.1	49.3	53	47
13	41	36	38.4	36.0	27	0	98	84	91	0.17	28.84	30.20	NE	10.1	20.4	3.16	50.2	46.1	47	45
14	54	38	45.2	38.2	19	0	95	52	78	0.19	28.71	30.06	NA	6.0	15.6	17.57*	51.1	50.0	58	44
15	68	37	51.6	41.5	13	0	96	38	72	0.00	28.61	29.96	SSW	11.4	22.4	22.70	53.4	53.1	63	45
16	75	42	54.6	44.0	6	0	98	26	73	0.00	28.71	30.07	ESE	8.6	18.9	19.47	55.6	56.5	67	49
17	87	44	64.9	40.1	0	0	95	13	50	0.00	28.67	30.03	SSW	11.9	29.6	23.61	57.4	60.5	71	51
18	85	48	66.6	42.8	0	1	76	22	46	0.00	28.63	29.98	NE	11.3	35.8	23.52	59.3	64.3	74	55
19	70	48	58.1	43.8	6	0	84	41	60	0.00	28.79	30.15	NNE	12.9	25.1	22.10	59.5	63.8	71	57
20	77	53	63.2	49.7	0	0	90	36	65	0.00	28.77	30.12	SE	15.6	27.7	20.19	60.5	64.6	72	59
21	78	54	65.8	47.5	0	1	76	33	53	0.00	28.72	30.08	SSE	14.9	28.3	14.62	60.9	64.6	70	60
22	74	59	66.8	54.0	0	2	86	53	64	0.00	28.59	29.94	SSE	19.4	38.4	10.64	61.2	64.4	68	61
23	86	62	72.6	54.0	0	9	76	28	54	0.00	28.27	29.61	S	24.0	46.9	17.13	62.7	67.2	73	62
24	72	42	55.1	31.3	8	0	66	23	42	0.00	28.49	29.84	NNW	11.9	33.3	24.83	61.7	65.1	71	59
25	69	36	52.7	32.7	13	0	87	25	51	0.00	28.48	29.82	ESE	10.1	29.1	21.28	59.4	61.0	68	55
26	75	47	57.3	48.8	4	0	97	24	78	0.00	28.27	29.60	ESE	12.8	29.0	18.53	61.1	63.0	71	58
27	55	29	38.4	35.0	23	0	94	78	88	0.24	28.36	29.70	NW	19.7	37.9	3.88	57.0	53.8	64	44
28	51	30	37.4	26.7	24	0	96	32	69	0.03	28.48	29.82	NW	19.1	41.2	20.23	50.2	45.2	51	41
29	74	27	52.0	25.7	14	0	94	14	47	0.00	28.46	29.81	NA	13.4	34.1	25.33	51.6	50.8	62	40
30	85	45	62.9	31.6	0	0	68	10	36	0.00	28.25	29.59	SSE	15.4	45.8	24.64	56.6	60.4	71	51
31	64	30	48.0	21.5	18	0	79	14	40	0.00	28.55	29.90	NW	10.2	24.2	26.54	56.2	58.3	67	50
	70*	42*	55.3*	37.1*	<- Monthly Averages ->						28.61*	29.97*	ESE*	13.7*	46.9*	17.45*	56.2*	57.9*	65*	52*

Temperature - Highest: 90*
Lowest: 15*

Degree Days - Total HDD: 310*
Total CDD: 30*

Number of Days With:
Tmax ≥ 90: 1* — Rainfall ≥ 0.01 inch: 5*
Tmax ≤ 32: 0* — Rainfall ≥ 0.10 inch: 4*
Tmin ≤ 32: 8* — Avg Wind Speed ≥ 10 mph: 26*
Tmin ≤ 0: 0* — Max Wind Speed ≥ 30 mph: 14*

Rainfall: Monthly Total: 0.76* in.
Greatest 24 Hr: 0.24* in.

Humidity - Highest: 98*
Lowest: 10*

* Denotes incomplete record

monthly data generated on tuesday, september 22, 2009 at 18:26 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — April 2009 — 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	82	36	62.7	27.2	6	0	68	14	29	0.00	28.19	29.53	S	15.6	37.3	20.92	56.7	59.1	67	51
2	70	35	51.2	29.6	12	0	74	16	46	0.00	28.32	29.65	NNW	20.5	50.4	21.36	57.1	59.4	63	55
3	76	29	55.5	30.3	12	0	91	19	44	0.00	28.37	29.71	SSE	16.0	36.6	26.22	56.3	57.8	67	49
4	82	50	66.5	31.1	0	1	54	12	31	0.00	28.27	29.61	SSE	17.4	40.2	26.08	60.0	64.1	72	57
5	56	37	46.0	21.7	18	0	54	26	39	0.00	28.82	30.18	NNW	23.0	41.6	26.91	57.6	59.0	63	54
6	58	28	43.1	16.5	22	0	57	16	37	0.00	29.03	30.40	NNW	16.3	42.4	27.62	55.5	55.2	62	49
7	81	21	51.1	14.4	14	0	77	9	32	0.00	28.77	30.13	NA	10.8	33.2	27.63	55.5	55.7	66	46
8	85	37	64.6	22.9	4	0	44	11	22	0.00	28.40	29.74	E	7.7	18.6	24.83	59.2	62.2	72	53
9	83	52	70.1	28.0	0	3	46	9	23	0.00	28.19	29.52	SSW	20.0	55.2	25.46	61.9	66.6	73	61
10	65	42	52.7	33.7	11	0	69	31	50	0.00	28.69	30.05	NNW	13.7	32.5	26.80	61.0	63.7	71	57
11	71	36	55.4	37.4	11	0	94	27	56	0.79	28.68	30.04	ESE	14.7	37.0	20.59	60.2	61.6	68	55
12	65	51	54.7	50.7	7	0	95	64	87	0.15	28.42	29.77	SE	10.2	43.6	11.33	59.9	59.7	66	56
13	64	46	53.1	43.7	10	0	90	45	72	0.00	28.59	29.94	NNW	12.9	29.4	23.04	58.9	57.5	63	52
14	78	41	59.6	44.8	5	0	94	28	63	0.00	28.61	29.96	SE	10.4	23.0	25.03	59.9	59.4	69	50
15	77	50	62.2	46.8	2	0	88	31	60	0.00	28.58	29.93	SE	16.6	36.7	18.54	60.6	61.7	70	55
16	66	53	58.6	51.9	6	0	86	67	79	0.10	28.61	29.96	ESE	16.3	34.6	7.25	59.6	59.7	62	57
17	68	56	59.5	54.3	3	0	94	68	83	0.06	28.61	29.96	ESE	16.5	29.7	13.38	60.1	60.0	65	57
18	77	52	63.6	48.1	1	0	96	21	64	0.00	28.57	29.91	ESE	9.2	28.1	24.93	63.3	66.0	77	59
19	69	46	57.0	43.3	8	0	89	36	63	0.00	28.76	30.12	NNW	15.1	36.5	24.80	61.6	63.9	71	57
20	85	41	62.4	39.3	2	0	89	15	52	0.00	28.74	30.09	W	8.6	25.6	26.80	61.1	64.8	77	54
21	86	45	66.5	43.1	0	1	89	17	50	0.00	28.65	30.00	NNW	5.9	18.0	28.29	63.7	69.2	81	58
22	97	55	75.5	42.6	0	11	78	11	38	0.00	28.47	29.81	E	9.0	21.7	28.77	66.5	73.2	84	63
23	95	63	79.5	42.9	0	14	54	14	29	0.00	28.39	29.74	SSW	15.2	34.2	19.91	67.7	74.3	82	68
24	92	64	77.2	55.7	0	13	79	22	51	0.00	28.47	29.82	S	18.8	40.4	24.05	69.3	75.9	84	69
25	89	65	77.1	60.9	0	12	87	35	60	0.00	28.49	29.84	S	19.8	37.3	17.86	70.1	75.9	82	71
26	80	61	72.9	63.5	0	6	93	58	73	1.27	28.42	29.77	SSE	21.4	45.6	5.76	69.0	72.3	76	67
27	72	54	65.4	59.2	2	0	94	66	81	0.00	28.61	29.96	NNE	11.1	23.8	15.70	67.6	68.4	74	63
28	72	53	61.4	55.8	3	0	96	62	83	0.01	28.80	30.16	E	9.5	30.0	15.12	66.2	64.9	71	61
29	72	59	64.0	61.3	0	1	96	77	91	4.75	28.60	29.95	ESE	12.4	35.4	9.70	65.4	66.4	71	63
30	85	59	71.7	64.1	0	7	94	51	78	0.00	28.53	29.88	SE	12.9	30.5	24.42	67.9	70.5	80	63
	77	47	62.0	42.2	<- Monthly Averages ->						28.56	29.90	NNW*	14.2	55.2	21.30	62.0	64.3	72	58

Temperature - Highest: 97
Lowest: 21

Degree Days - Total HDD: 161
Total CDD: 67

Number of Days With:
Tmax ≥ 90: 3 — Rainfall ≥ 0.01 inch: 7
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 5
Tmin ≤ 32: 3 — Avg Wind Speed ≥ 10 mph: 24
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 21

Rainfall: Monthly Total: 7.13 in.
Greatest 24 Hr: 4.75 in.

Humidity - Highest: 96
Lowest: 9

* Denotes incomplete record

monthly data generated on wednesday, november 11, 2009 at 14:55 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — May 2009 — 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	84	54	67.8	62.1	0	4	94	54	83	0.00	28.57	29.92	NNE	12.8	35.1	21.08	70.4	72.0	82	65
2	55	52	53.7	51.7	11	0	96	89	93	0.08	28.56	29.91	NNE	10.5	23.4	4.61	65.7	61.9	65	60
3	60	52	56.0	51.1	9	0	93	75	84	0.01	28.58	29.93	N	10.4	22.3	8.27	63.6	60.0	62	58
4	62	47	55.7	50.4	10	0	96	59	83	0.03	28.64	29.99	NA	6.0	18.9	11.62	62.8	60.1	65	55
5	61	54	58.8	57.7	7	0	97	94	96	0.16	28.50	29.85	E	8.9	19.6	3.17	62.5	60.3	62	58
6	76	60	65.9	61.3	0	3	97	64	86	0.00	28.50	29.85	N	6.3	23.0	14.09	65.1	66.5	75	61
7	88	59	73.4	68.1	0	9	96	57	85	0.02	28.42	29.76	NA	7.0	20.6	15.15	67.8	71.0	81	64
8	85	71	77.6	67.7	0	13	91	58	72	0.00	28.33	29.67	NNE	13.6	27.9	24.51	72.1	76.3	85	70
9	73	62	65.5	45.2	0	2	70	33	48	0.00	28.69	30.04	NE	12.8	29.4	8.58	68.8	70.4	74	68
10	62	56	59.4	54.4	6	0	95	67	84	0.02	28.72	30.08	NE	8.7	23.2	4.06	66.1	65.4	68	63
11	61	52	56.9	54.1	9	0	96	84	90	1.03	28.76	30.11	NNE	9.6	26.5	5.62	63.6	61.6	64	59
12	90	59	70.1	62.4	0	9	97	44	80	0.38	28.49	29.84	SSE	15.1	61.5	17.36	65.6	67.7	79	61
13	93	66	79.0	66.2	0	14	91	44	67	0.00	28.34	29.68	SE	16.1	30.9	28.10	69.3	74.6	85	66
14	80	66	71.8	63.1	0	8	90	60	74	0.00	28.61	29.96	ESE	14.9	29.3	10.70	69.6	71.6	77	67
15	90	64	75.8	64.6	0	12	92	40	70	0.63	28.52	29.87	SSE	14.6	41.0	26.29	70.8	75.6	86	68
16	68	50	61.4	52.4	6	0	94	36	75	0.43	28.82	30.18	NNE	13.3	39.8	11.60	68.7	67.8	73	62
17	72	45	58.9	45.5	7	0	94	32	66	0.00	28.92	30.28	SE	6.5	16.3	30.05	67.3	67.0	79	56
18	78	50	64.4	50.9	1	0	93	35	65	0.01	28.85	30.21	SE	9.5	21.1	29.69	67.7	69.5	80	60
19	81	50	66.6	49.4	0	1	89	28	57	0.00	28.82	30.18	SE	11.2	24.3	30.30	67.7	71.8	85	61
20	81*	54*	67.6*	52.0*	0*	3*	89*	34*	61*	0.00*	28.72*	30.07*	SE *	11.3*	22.5*	24.20*	68.6*	73.2*	83*	64*
21	84	56	69.6	53.1	0	5	87	30	60	0.00	28.68	30.03	ESE	9.8	21.0	29.61	69.9	75.4	87	65
22	85	60	72.2	58.3	0	8	91	34	65	0.00	28.68	30.03	E	8.0	19.0	25.48	71.3	77.6	88	69
23	79	62	69.9	62.2	0	6	92	55	77	0.23	28.64	29.99	ENE	6.8	20.7	18.79	71.7	77.4	84	71
24	83	63	71.4	61.8	0	8	96	38	75	0.01	28.58	29.93	E	5.7	19.3	24.32	73.2	76.9	84	70
25	86	62	73.7	61.5	0	9	97	36	69	0.00	28.43	29.77	NA	5.3	15.9	27.46	74.3	79.1	91	70
26	87	63	73.4	57.7	0	10	86	34	60	0.01	28.42	29.77	N	11.4	34.2	28.49	74.8	81.3	91	72
27	77	54	66.0	50.9	0	1	86	36	61	0.00	28.58	29.93	NNW	10.7	24.9	30.73	72.8	78.4	87	70
28	87	54	70.3	49.7	0	5	95	19	55	0.00	28.61	29.96	NA	5.6	19.7	30.55	73.1	79.3	90	69
29	90	57	74.0	51.5	0	8	86	20	51	0.00	28.69	30.05	NA	5.1	17.2	30.97	74.3	81.6	93	71
30	93	58	76.9	53.4	0	10	89	20	49	0.00	28.64	29.99	NA	6.7	19.9	30.80	75.3	83.0	93	73
31	94	61	79.5	54.8	0	13	83	19	47	0.00	28.56	29.90	SSE	10.7	26.6	30.54	76.2	84.0	93	75
	79*	57*	67.8*	56.3*	<- Monthly Averages ->						28.61*	29.96*	NA	9.8*	61.5*	20.54*	69.4*	72.2*	80*	65*

Temperature - Highest: 94*
Lowest: 45*

Degree Days - Total HDD: 67*
Total CDD: 160*

Number of Days With:
Tmax ≥ 90: 6* — Rainfall ≥ 0.01 inch: 14*
Tmax ≤ 32: 0* — Rainfall ≥ 0.10 inch: 6*
Tmin ≤ 32: 0* — Avg Wind Speed ≥ 10 mph: 15*
Tmin ≤ 0: 0* — Max Wind Speed ≥ 30 mph: 6*

Rainfall: Monthly Total: 3.05* in.
Greatest 24 Hr: 1.03* in.

Humidity - Highest: 97*
Lowest: 19*

* Denotes incomplete record

monthly data generated on wednesday, november 11, 2009 at 14:09 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — June 2009 — 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	89	63	77.8	58.5	0	11	91	29	54	0.37	28.52	29.87	SE	12.7	44.0	23.46	76.4	83.6	90	78
2	83	64	72.7	63.2	0	9	93	37	74	0.91	28.56	29.91	SE	7.9	40.3	22.11	75.4	78.3	86	72
3	74	62	68.6	62.2	0	3	96	63	81	0.01	28.70	30.05	N	11.7	26.7	17.32	74.1	74.2	78	71
4	82	54	68.8	54.2	0	3	95	33	64	0.00	28.71	30.07	NNE	6.2	20.1	30.30	73.8	73.7	83	65
5	88	59	74.5	56.4	0	9	92	31	57	0.00	28.61	29.96	SE	11.8	27.4	29.94	74.8	77.2	88	67
6	98	67	81.5	57.5	0	18	76	25	47	0.00	28.45	29.79	S	15.1	35.1	27.68	75.6	81.9	93	73
7	97	71	82.4	61.0	0	19	75	22	51	0.00	28.37	29.71	SSE	15.9	49.0	25.33	76.3	83.9	93	76
8	93	65	80.6	62.2	0	14	90	27	57	0.00	28.44	29.78	ESE	7.2	21.9	29.35	77.5	85.8	97	76
9	96	70	81.4	66.4	0	18	81	25	63	0.00	28.46	29.81	SSW	12.4	27.6	24.28	78.2	85.8	93	79
10	77	63	68.9	63.0	0	5	97	59	82	0.33	28.47	29.82	SSW	8.1	45.0	6.68	75.4	77.2	84	71
11	86	60	73.4	65.0	0	8	99	45	78	0.01	28.48	29.82	NA	6.5	16.5	28.40	75.5	77.0	86	68
12	96	70	80.9	67.4	0	18	96	26	69	0.00	28.46	29.80	ESE	7.8	20.9	30.00	78.6	83.8	96	74
13	96	70	81.3	67.1	0	18	91	34	65	0.04	28.55	29.90	E	12.8	35.8	23.58	79.6	86.6	99	78
14	91	66	77.4	66.6	0	14	91	43	71	0.01	28.55	29.90	S	10.8	41.1	18.36	78.4	82.5	91	76
15	96	69	83.9	66.2	0	18	89	32	59	0.03	28.46	29.81	SSW	16.6	30.4	29.48	79.0	85.1	95	76
16	98	71	85.7	66.4	0	19	81	34	54	0.00	28.44	29.78	SSW	13.8	29.4	29.37	80.1	88.3	97	80
17	97	75	86.0	63.8	0	21	66	28	49	0.00	28.50	29.85	SSE	15.4	31.0	28.60	80.8	88.8	97	82
18	97	74	86.0	64.1	0	21	72	28	50	0.00	28.47	29.81	SSE	16.2	34.4	30.18	81.3	89.1	97	82
19	90	75	81.5	68.1	0	18	89	44	65	0.03	28.48	29.83	SSW	11.9	26.8	16.22	80.9	87.0	92	83
20	94	73	82.3	67.6	0	18	89	38	63	0.01	28.46	29.80	S	14.2	36.5	21.79	80.0	85.1	92	79
21	100	77	87.5	65.7	0	23	75	28	51	0.00	28.44	29.79	S	13.7	28.3	29.17	81.2	88.4	98	80
22	101	73	88.3	62.1	0	22	74	23	45	0.00	28.47	29.81	SSE	10.5	22.0	28.89	82.5	90.7	99	83
23	103	72	88.2	60.7	0	22	76	20	44	0.00	28.52	29.86	SE	8.0	17.6	26.86	82.9	91.4	100	83
24	102	74	89.0	61.4	0	23	77	17	44	0.00	28.57	29.92	ESE	7.8	18.1	30.51	83.9	93.1	103	84
25	103	72	88.7	60.8	0	22	85	16	45	0.00	28.57	29.92	SE	7.7	20.8	29.88	84.8	93.7	102	86
26	103	67	87.7	57.3	0	20	74	19	40	0.00	28.52	29.87	NA	9.1	24.3	29.85	84.5	93.0	102	84
27	106	75	91.1	60.4	0	25	69	18	39	0.00	28.50	29.85	SE	8.9	28.3	28.39	85.4	93.8	102	86
28	90	77	83.3	66.1	0	19	79	44	57	0.00	28.61	29.96	NNE	10.6	26.0	10.88	84.1	89.8	93	87
29	81	71	75.6	68.0	0	11	96	53	78	0.44	28.55	29.90	NA	5.1	19.0	7.82	81.1	82.8	87	79
30	95	67	79.6	66.1	0	16	96	34	68	0.19	28.51	29.85	NA	4.6	36.5	28.67	81.2	83.0	92	75
	93	69	81.2	63.2	<- Monthly Averages ->						28.51	29.86	SSW*	10.7	49.0	24.78	79.4	85.2	93	78

Temperature - Highest: 106
Lowest: 54

Degree Days - Total HDD: 0
Total CDD: 484

Number of Days With:
Tmax ≥ 90: 22 — Rainfall ≥ 0.01 inch: 12
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 5
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 17
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 12

Rainfall: Monthly Total: 2.38 in.
Greatest 24 Hr: 0.91 in.

Humidity - Highest: 99
Lowest: 16

* Denotes incomplete record

monthly data generated on tuesday, september 22, 2009 at 18:30 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — July 2009 — 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	97	64	82.0	61.0	0	16	96	21	56	0.01	28.54	29.89	SSE	5.2	17.2	30.50	81.8	84.0	94	75
2	100	70	86.9	60.7	0	20	88	22	46	0.00	28.62	29.97	NA	7.3	20.7	29.54	82.8	87.8	98	78
3	103	73	89.4	57.5	0	23	71	17	38	0.00	28.63	29.98	S	11.8	25.7	27.97	83.0	89.6	98	82
4	103	76	86.7	66.2	0	25	94	26	55	0.15	28.55	29.90	S	12.1	38.9	23.59	83.2	90.0	99	84
5	86	70	77.3	67.8	0	13	95	42	75	0.10	28.63	29.98	NE	8.8	24.1	18.82	81.8	83.8	89	80
6	89	64	76.9	60.6	0	12	95	32	61	0.00	28.62	29.97	NE	6.7	16.5	29.92	81.0	84.5	95	75
7	96	71	82.6	64.0	0	18	79	34	56	0.00	28.52	29.86	SE	9.9	26.0	28.55	82.2	87.8	96	80
8	105	72	88.2	65.3	0	24	83	22	52	0.00	28.44	29.79	SE	14.8	32.9	29.72	83.4	90.2	99	82
9	109	76	92.2	62.2	0	27	78	15	42	0.00	28.50	29.85	S	15.6	33.3	29.75	84.3	91.5	99	84
10	108	75	93.2	57.5	0	26	62	18	32	0.00	28.61	29.96	S	13.3	25.4	30.25	85.0	92.5	101	85
11	105	75	91.8	56.6	0	25	63	15	33	0.00	28.70	30.05	S	9.7	23.7	29.58	85.7	93.0	101	86
12	105	74	90.7	58.8	0	24	63	19	37	0.00	28.68	30.03	SSW	9.3	24.1	29.59	85.8	92.9	101	85
13	106	77	92.0	58.3	0	26	61	18	36	0.00	28.58	29.93	S	10.5	26.7	29.18	86.4	93.4	101	86
14	106	80	93.5	56.2	0	28	49	16	31	0.00	28.53	29.87	S	14.8	43.9	29.79	86.9	93.7	101	87
15	106	80	92.1	57.7	0	28	49	17	33	0.00	28.61	29.96	SSE	11.0	22.5	29.58	87.3	94.3	103	87
16	105	69	88.1	60.3	0	22	88	20	44	0.26	28.63	29.99	ESE	10.3	50.4	27.40	87.4	94.1	103	88
17	92	67	79.0	63.8	0	14	95	31	64	0.00	28.75	30.10	ENE	8.8	22.0	28.01	85.2	88.3	97	80
18	87	68	76.5	64.2	0	12	95	39	68	0.16	28.78	30.13	NA	5.6	35.0	18.61	83.1	84.6	90	80
19	96	69	82.6	63.5	0	18	95	20	58	0.00	28.70	30.06	NA	5.2	16.1	28.98	83.3	86.5	97	78
20	97	73	84.3	64.5	0	20	86	29	55	0.00	28.52	29.86	SSE	16.2	38.4	25.78	83.2	87.9	95	82
21	87	71	77.8	67.4	0	14	92	46	72	0.43	28.56	29.91	NNE	12.5	57.4	27.85	82.2	84.7	90	80
22	87	66	76.6	59.2	0	11	92	27	59	0.00	28.70	30.05	NE	6.8	20.2	22.17	81.2	82.6	90	76
23	91	65	79.2	60.5	0	13	92	28	57	0.00	28.69	30.04	NA	7.6	23.2	28.96	81.7	85.3	95	77
24	97	68	82.9	63.0	0	18	88	28	55	0.00	28.62	29.97	SSW	7.1	21.3	28.39	82.6	87.5	96	80
25	106	69	89.0	55.9	0	22	81	14	38	0.00	28.56	29.91	S	8.9	24.3	28.90	83.5	89.3	98	82
26	96	76	84.2	64.3	0	21	68	34	52	0.00	28.61	29.96	E	8.7	21.1	17.72	83.3	88.8	94	84
27	79	71	74.1	70.4	0	10	97	68	89	1.05	28.63	29.98	SSE	6.4	18.4	7.45	81.0	82.6	88	80
28	89	72	79.5	70.6	0	15	97	53	76	0.01	28.53	29.88	NA	5.8	22.2	26.30	81.8	83.8	92	77
29	93	66	80.6	68.2	0	15	97	39	69	0.96	28.49	29.83	SSE	8.2	56.4	24.18	82.7	85.0	92	79
30	83	67	74.6	67.5	0	10	97	59	80	0.20	28.60	29.95	NNE	8.5	19.5	23.56	80.1	81.5	87	77
31	86	68	76.4	67.1	0	12	93	48	74	0.00	28.69	30.04	SSE	9.5	21.5	22.39	80.7	81.9	89	76
	97	71	83.9	62.6	<- Monthly Averages ->						28.61	29.96	S *	9.6	57.4	26.23	83.3	87.9	96	81

Temperature - Highest: 109
Lowest: 64

Degree Days - Total HDD: 0
Total CDD: 583

Number of Days With:
Tmax ≥ 90: 22 — Rainfall ≥ 0.01 inch: 10
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 8
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 11
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 9

Rainfall: Monthly Total: 3.33 in.
Greatest 24 Hr: 1.05 in.

Humidity - Highest: 97
Lowest: 14

* Denotes incomplete record

monthly data generated on tuesday, september 22, 2009 at 18:32 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — August 2009 — 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	89	70	78.2	68.1	0	14	95	47	73	0.08	28.66	30.01	NNE	8.2	22.4	27.05	81.0	NA	NA	NA
2	92	67	80.6	68.1	0	15	96	43	68	0.00	28.66	30.01	SE	7.9	20.2	27.78	81.3	NA	NA	NA
3	100	72	86.1	64.2	0	21	89	23	53	0.00	28.58	29.93	S	11.2	25.4	28.15	82.2	NA	NA	NA
4	102	72	86.9	61.3	0	22	68	24	45	0.00	28.58	29.93	SSW	11.3	24.1	27.92	81.8	NA	NA	NA
5	104	74	87.2	65.3	0	24	77	22	53	0.00	28.61	29.96	SSW	9.2	40.9	27.76	82.8	NA	NA	NA
6	100	73	84.2	67.2	0	22	84	26	60	0.05	28.64	29.99	SE	13.1	33.5	21.98	82.4	NA	NA	NA
7	102	74	88.2	63.3	0	23	88	21	49	0.00	28.58	29.93	SSE	14.8	32.1	28.19	82.7	NA	NA	NA
8	102	74	87.8	61.1	0	23	67	22	44	0.00	28.58	29.92	SSE	16.3	29.4	28.27	83.0	NA	NA	NA
9	101	74	87.0	62.5	0	23	72	25	47	0.00	28.61	29.97	SSE	14.5	29.7	26.67	83.3	NA	NA	NA
10	102	78	89.0	64.1	0	25	74	23	47	0.00	28.66	30.01	S	12.7	29.6	27.15	84.4	NA	NA	NA
11	92	72	81.6	65.0	0	17	80	40	59	0.00	28.73	30.09	ESE	16.1	34.8	25.93	84.2	NA	NA	NA
12	94	69	80.0	64.4	0	16	90	35	62	0.04	28.74	30.10	NA	8.0	18.1	22.35	83.2	NA	NA	NA
13	95	72	82.0	60.9	0	18	71	29	51	0.00	28.67	30.02	SE	11.3	22.1	23.16	83.1	NA	NA	NA
14	98	70	83.6	64.9	0	19	85	30	57	0.00	28.61	29.96	SE	13.6	29.5	26.18	84.0	NA	NA	NA
15	103	76	88.7	63.4	0	25	75	24	46	0.00	28.49	29.84	S	16.5	34.1	24.90	84.7	NA	NA	NA
16	105	75	89.5	62.6	0	25	64	24	43	0.00	28.50	29.85	SSE	14.2	35.4	25.45	85.3	NA	NA	NA
17	103	75	88.5	61.3	0	24	68	23	43	0.00	28.58	29.93	SE	13.1	33.5	26.81	86.0	NA	NA	NA
18	92*	70*	80.3*	63.0*	0*	16*	80*	34*	58*	0.01*	28.65*	30.00*	ESE*	15.4*	56.6*	21.34*	84.9*	NA	NA	NA
19	102	66	84.9	60.0	0	19	85	23	49	0.00	28.46	29.81	SSW	15.8	37.4	23.89	84.4	89.6	96	82
20	92	73	82.7	58.7	0	17	69	24	46	0.00	28.54	29.89	NE	12.9	28.2	23.79	84.6	90.4	98	84
21	96	62	80.4	52.9	0	14	87	16	45	0.00	28.69	30.04	NA	4.9	13.8	27.57	84.0	90.3	100	81
22	97	67	82.1	59.1	0	17	81	29	49	0.00	28.68	30.04	E	9.2	19.9	25.57	84.3	90.9	101	82
23	103	70	85.8	61.4	0	21	70	22	47	0.00	28.60	29.95	ESE	12.0	29.6	26.15	85.5	92.6	102	84
24	106	72	88.3	60.1	0	24	84	15	46	0.00	28.60	29.95	ESE	10.9	22.5	26.41	86.7	93.8	103	86
25	106	72	89.1	54.6	0	24	85	13	38	0.00	28.60	29.95	ESE	9.4	21.1	26.29	86.7	93.7	103	86
26	105	71	86.6	58.5	0	23	92	15	45	0.21	28.60	29.95	ESE	8.0	33.5	24.73	86.5	93.4	102	86
27	91	70	78.5	66.8	0	15	94	38	70	0.03	28.66	30.01	NNE	8.9	22.4	23.29	84.4	88.1	96	81
28	91	65	76.8	58.4	0	13	96	23	59	0.00	28.69	30.04	N	8.1	23.7	26.51	81.8	86.8	97	78
29	89	60	75.2	57.2	0	10	91	32	57	0.00	28.68	30.03	NA	6.3	18.6	23.92	80.5	86.2	96	77
30	83	62	71.9	54.2	0	8	88	29	57	0.00	28.77	30.13	ENE	9.0	23.5	24.91	80.0	85.3	94	78
31	84	63	71.9	51.3	0	8	65	33	50	0.00	28.80	30.16	E	9.6	20.8	19.21	79.6	83.4	93	77
	97*	70*	83.3*	61.4*	<- Monthly Averages ->						28.63*	29.98*	ESE*	11.4*	56.6*	25.46*	83.5*	89.6*	99*	82*

Temperature - Highest: 106*
Lowest: 60*

Degree Days - Total HDD: 0*
Total CDD: 585*

Number of Days With:
Tmax ≥ 90: 27* — Rainfall ≥ 0.01 inch: 6*
Tmax ≤ 32: 0* — Rainfall ≥ 0.10 inch: 1*
Tmin ≤ 32: 0* — Avg Wind Speed ≥ 10 mph: 18*
Tmin ≤ 0: 0* — Max Wind Speed ≥ 30 mph: 10*

Rainfall: Monthly Total: 0.42* in.
Greatest 24 Hr: 0.21* in.

Humidity - Highest: 96*
Lowest: 13*

* Denotes incomplete record

monthly data generated on wednesday, november 11, 2009 at 03:24 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — September 2009 — 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	95	65	79.6	56.2	0	15	71	25	47	0.00	28.73	30.09	SE	13.7	27.3	23.22	80.6	84.9	94	77
2	101	68	84.4	56.4	0	19	75	20	43	0.00	28.64	29.99	S	11.1	26.8	23.55	82.2	87.2	96	79
3	91	71	79.2	60.6	0	16	81	37	54	0.00	28.60	29.95	ENE	9.2	21.7	20.70	82.4	87.6	95	81
4	91	68	77.3	63.2	0	15	89	32	65	0.00	28.62	29.97	S	7.9	23.0	17.00	82.0	85.7	92	81
5	92	65	78.0	62.1	0	14	87	30	61	0.11	28.68	30.03	E	6.0	17.2	20.11	82.2	86.0	95	79
6	95	68	80.9	61.2	0	17	94	25	57	0.00	28.70	30.05	SE	6.3	16.8	24.15	82.0	86.0	96	78
7	98	68	82.4	60.2	0	18	83	23	51	0.00	28.62	29.97	SE	9.3	26.2	22.25	81.7	87.0	96	79
8	97	71	84.3	58.8	0	19	73	22	45	0.00	28.54	29.89	SSE	11.9	27.8	23.09	82.3	88.0	96	81
9	97	68	79.8	60.9	0	17	92	24	57	0.09	28.60	29.95	ESE	6.3	32.9	21.22	82.5	87.7	98	81
10	87	68	75.4	67.2	0	13	95	48	78	0.00	28.69	30.04	NNE	9.3	27.4	20.69	81.1	84.6	93	78
11	84	64	71.7	67.3	0	9	97	52	87	0.18	28.69	30.04	NA	4.7	18.3	9.19	79.2	80.8	86	77
12	71	65	67.9	66.1	0	3	97	90	94	1.44	28.62	29.97	NNE	9.8	28.3	3.88	75.8	73.8	77	71
13	72	66	68.5	66.0	0	4	97	80	92	0.58	28.59	29.94	NNE	11.0	24.8	5.80	74.3	71.7	74	70
14	73	65	67.6	63.5	0	4	93	76	87	0.00	28.62	29.97	NNE	10.2	22.7	6.80	73.4	70.5	73	69
15	80	67	70.9	64.4	0	8	94	54	81	0.00	28.63	29.98	NNE	8.6	20.1	13.11	74.1	72.3	77	70
16	75	66	70.0	63.1	0	5	95	61	79	0.00	28.67	30.02	N	11.6	26.2	8.31	73.6	70.7	73	69
17	73	66	68.4	63.0	0	5	91	73	83	0.05	28.69	30.04	N	10.8	25.1	5.09	72.4	69.3	71	68
18	74	64	68.2	61.3	0	4	93	54	80	0.01	28.74	30.10	NNE	8.2	18.9	6.62	72.0	69.3	72	68
19	82	59	70.0	59.7	0	5	97	39	74	0.00	28.73	30.09	NW	4.9	15.2	22.46	72.6	72.3	81	65
20	88	63	74.1	62.1	0	11	98	31	71	0.01	28.59	29.94	SE	10.3	26.8	19.68	73.6	74.8	84	68
21	87	63	75.2	61.3	0	10	92	37	65	0.00	28.50	29.85	SE	12.0	30.5	21.56	74.5	77.9	88	71
22	73	53	62.4	47.7	2	0	91	32	61	0.02	28.79	30.15	N	11.3	33.0	19.55	71.7	73.7	80	68
23	75	47	60.7	45.2	4	0	94	28	61	0.00	28.84	30.20	NW	6.8	20.1	21.10	69.5	70.3	79	63
24	73	49	60.0	48.8	4	0	93	40	69	0.00	28.83	30.19	S	6.0	21.5	14.32	68.8	68.7	76	64
25	80	48	64.0	50.9	1	0	96	33	68	0.37	28.75	30.11	NA	10.3	35.2	22.35	68.4	69.7	79	61
26	83	56	69.2	60.0	0	5	97	41	75	0.00	28.67	30.02	NA	5.3	15.6	22.21	69.9	71.1	80	64
27	98	57	76.6	56.1	0	12	98	14	58	0.01	28.44	29.79	SW	9.3	26.3	22.66	71.4	72.9	83	65
28	77	53	67.3	38.4	0	0	74	16	38	0.00	28.76	30.11	NE	11.8	28.5	22.23	70.0	72.5	81	66
29	79	46	63.6	43.2	3	0	95	22	54	0.00	28.75	30.11	NA	7.6	19.9	21.88	67.9	70.1	80	61
30	90	59	74.2	60.2	0	10	88	35	64	0.00	28.51	29.86	SSE	17.4	37.0	20.55	69.8	73.7	83	66
	84	62	72.4	58.5	<- Monthly Averages ->						28.66	30.01	NNE*	9.3	37.0	17.51	75.4	77.0	84	71

Temperature - Highest: 101
Lowest: 46

Degree Days - Total HDD: 14
Total CDD: 258

Number of Days With:
Tmax ≥ 90: 11 — Rainfall ≥ 0.01 inch: 11
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 5
Tmin ≤ 32: 0 — Avg Wind Speed ≥ 10 mph: 13
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 5

Rainfall: Monthly Total: 2.87 in.
Greatest 24 Hr: 1.44 in.

Humidity - Highest: 98
Lowest: 14

* Denotes incomplete record

monthly data generated on monday, november 30, 2009 at 13:49 utc

MESONET CLIMATOLOGICAL DATA SUMMARY — October 2009 — 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	82	50	72.0	45.5	0	1	85	15	45	0.00	28.48	29.82	NNW	13.0	33.2	21.93	71.6	76.4	84	70
2	75	39	58.1	33.1	8	0	89	15	47	0.00	28.63	29.99	NA	5.0	16.2	22.20	67.7	69.7	80	61
3	73	49	61.6	46.3	4	0	91	32	60	0.02	28.53	29.88	SE	9.6	21.6	6.34	66.9	66.5	69	63
4	60	56	57.5	56.0	7	0	97	90	95	0.06	28.53	29.88	ENE	11.7	21.7	3.06	66.3	64.0	66	63
5	68	55	59.4	58.6	3	0	98	94	97	0.02	28.49	29.83	SE	12.4	20.7	2.48	65.4	62.7	65	61
6	71	49	61.7	52.0	5	0	98	32	73	0.05	28.58	29.93	NNE	12.5	35.3	13.86	66.2	65.9	71	62
7	62	46	55.6	49.4	11	0	98	49	81	0.02	28.67	30.02	NA	5.8	17.6	4.53	63.6	60.8	64	58
8	82	48	61.5	59.6	0	0	99	73	94	0.73	28.47	29.81	N	13.3	33.0	6.50	65.2	64.4	70	60
9	56	45	48.2	43.1	15	0	95	67	83	0.04	28.72	30.07	N	12.3	31.6	10.69	61.5	57.4	62	54
10	52	42	47.4	42.6	18	0	94	72	84	0.00	28.83	30.19	NNE	8.5	21.6	3.94	59.9	54.3	57	52
11	52	40	46.0	42.2	19	0	97	77	87	0.03	28.80	30.16	NNE	7.5	18.9	6.27	58.2	53.1	58	50
12	60	49	55.6	54.3	10	0	98	85	95	0.03	28.67	30.02	ESE	6.6	14.0	4.72	59.7	57.6	61	54
13	63	58	60.8	59.8	4	0	99	93	97	0.03	28.66	30.01	ESE	9.4	18.1	3.89	61.7	61.2	63	59
14	63	53	59.4	58.7	7	0	99	91	98	0.07	28.55	29.89	ENE	8.3	23.8	5.29	63.0	63.2	66	61
15	69	50	56.6	51.6	6	0	99	58	85	0.00	28.60	29.95	N	9.8	24.7	16.57	62.5	62.2	69	58
16	64	47	54.5	48.9	10	0	98	55	83	0.01	28.87	30.23	NA	5.1	16.3	15.60	61.9	60.7	68	55
17	67	46	56.1	47.0	8	0	99	41	75	0.00	29.01	30.38	NA	7.9	23.5	17.76	61.3	60.4	68	55
18	78	44	59.7	46.9	4	0	96	29	68	0.00	28.84	30.20	SSE	13.9	35.1	18.62	61.2	60.4	70	53
19	82	54	67.1	54.5	0	3	89	41	66	0.00	28.58	29.93	SSE	17.8	32.5	17.92	62.8	64.7	73	57
20	80	59	68.3	57.0	0	4	91	45	69	0.00	28.51	29.85	SSE	17.0	34.0	17.53	64.6	67.9	76	62
21	66	52	61.3	58.6	6	0	98	76	91	1.67	28.46	29.80	SE	12.2	31.6	1.66	64.2	64.4	67	61
22	53	45	49.2	41.5	16	0	90	64	75	0.00	28.53	29.87	NW	15.8	30.7	6.45	60.6	56.1	61	52
23	65	37	49.5	39.5	14	0	95	35	72	0.00	28.61	29.96	NA	10.1	26.3	18.37	58.0	52.9	60	47
24	73	42	57.7	47.7	8	0	94	47	71	0.00	28.47	29.82	S	11.6	29.3	15.05	57.9	54.8	61	48
25	68	49	57.6	49.9	7	0	96	62	76	0.00	28.50	29.84	N	12.3	38.5	13.62	59.8	58.6	66	53
26	57	36	48.0	39.1	18	0	97	44	73	0.00	28.79	30.15	N	12.9	31.1	15.09	57.9	55.1	61	51
27	65	32	49.6	37.4	16	0	100	33	68	0.00	28.44	29.79	NA	10.2	27.0	17.46	55.7	53.6	63	46
28	73	47	59.7	52.3	5	0	94	56	78	0.00	28.20	29.54	SE	18.9	32.4	16.10	57.5	58.0	66	51
29	71	45	53.1	48.9	7	0	96	74	86	0.65	28.32	29.66	WNW	13.6	31.9	3.11	59.2	57.7	63	52
30	58	37	46.9	35.2	18	0	89	35	66	0.00	28.56	29.91	W	8.3	20.5	17.28	56.5	52.5	59	48
31	73	35	52.2	38.7	11	0	95	26	65	0.00	28.75	30.11	NA	5.4	14.6	17.04	55.2	52.5	62	45
	67	46	56.5	48.3	<- Monthly Averages ->						28.60	29.95	NA	10.9	38.5	11.64	61.7	60.3	66	56

Temperature - Highest: 82
Lowest: 32

Degree Days - Total HDD: 265
Total CDD: 8

Number of Days With:
Tmax ≥ 90: 0 — Rainfall ≥ 0.01 inch: 14
Tmax ≤ 32: 0 — Rainfall ≥ 0.10 inch: 3
Tmin ≤ 32: 1 — Avg Wind Speed ≥ 10 mph: 18
Tmin ≤ 0: 0 — Max Wind Speed ≥ 30 mph: 13

Rainfall: Monthly Total: 3.43 in.
Greatest 24 Hr: 1.67 in.

Humidity - Highest: 100
Lowest: 15

* Denotes incomplete record

monthly data generated on thursday, december 31, 2009 at 14:48 utc