

2009

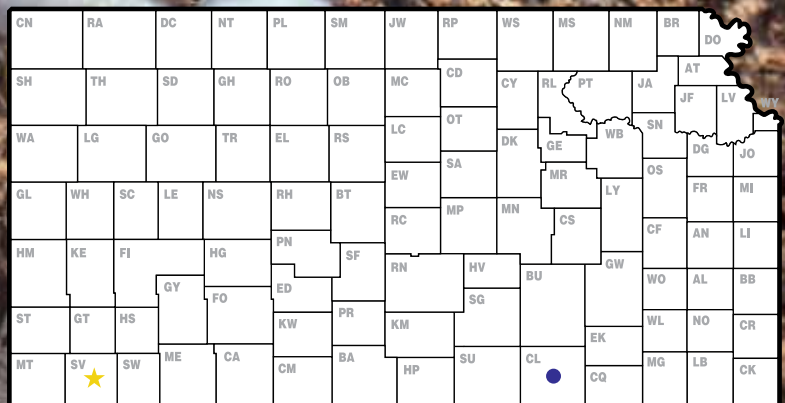
Kansas Performance Tests with

Cotton Varieties

Report of Progress 1028



**Kansas State University
Agricultural Experiment Station
and Cooperative Extension Service**



● dryland

★ irrigated

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Entrants in 2009 Kansas Cotton Performance Tests

DP&L (Deltapine)	Fiber Max	Stoneville
Monsanto	Bayer CropScience	Bayer CropScience
St. Louis, MO	RTP, NC	RTP, NC
800-511-SEED	866-99-BAYER	866-99-BAYER

Dyna-Gro	PhytoGen
Greeley, CO	Dow AgroSciences
970-356-4400	Indianapolis, IN
	317-337-3000

Contribution No. 10-319-S from the Kansas Agricultural Experiment Station.

2009 PERFORMANCE TESTS

Objectives and Procedures

The Kansas Agricultural Experiment Station established an official cotton testing program in 1980 to provide Kansas growers with unbiased performance comparisons of cotton varieties marketed in the state. Companies enter varieties of their choice and pay entry fees to cover part of the costs of conducting the tests.

Descriptive information is presented with the results for each test. This information, including soil type, establishment methods, fertilization, pest control, irrigation, harvest dates, and growing conditions unique to that location, can help explain test and/or variety performance.

In addition to lint yield and the yield as a percentage of test average, each table includes observations on cotton fiber quality. Each bale receives a rating on micronaire (Mic), length, uniformity index, strength, and color grade.

At the bottom of each column, the least significant difference (LSD) is listed at the 0.05 level. These values indicate how large a difference is needed to be confident that one variety is superior to another. Differences between varieties that are equal to or greater than the 0.05 LSD have only a 1 in 20 chance of being due to chance or error.

The coefficient of variability (CV) provides an estimate of the consistency of the results of a particular test. In these tests, CV less than 10% generally indicate reliable, uniform data, whereas CV of 10 to 15% are not uncommon and generally indicate the data are acceptable for rough comparisons. Tests with CV greater than 15% still may be useful, but variety comparisons lack precision.

Harvest Statistics

The November 10 Crops report predicted a 41,000 bale crop, up 21% percent from the previous year. Yields averaged 615 pounds per acre, down from 653 pounds per acre in 2008. Harvested acreage, at 32,000 acres, is up 7,000 acres from last year. (Kansas Agricultural Statistics Service, Topeka)

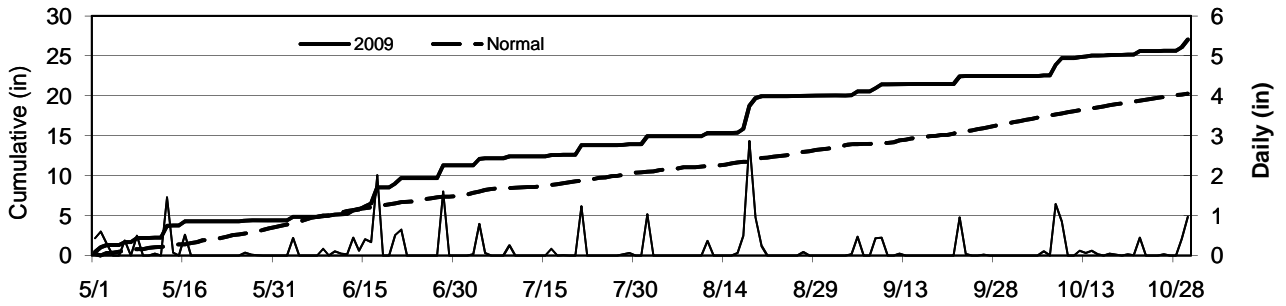
Production

Detailed information on planting, fertilizing, weed control, and disease and insect control can be found in the *Cotton Production in Kansas* publication issued by the Kansas State University Agricultural Experiment Station and Cooperative Extension Service. That information can be accessed at: <http://www.ksre.ksu.edu/library/crpsl2/mf1088.pdf>.

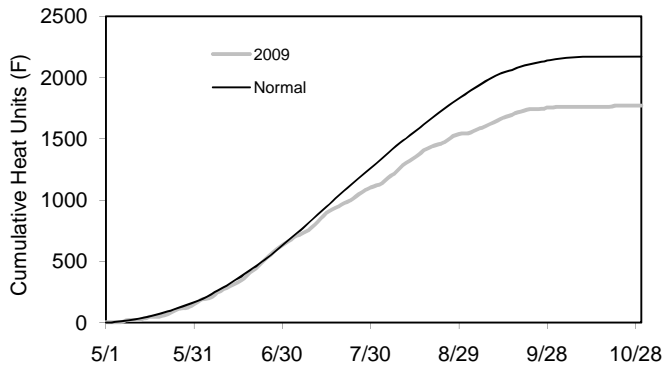
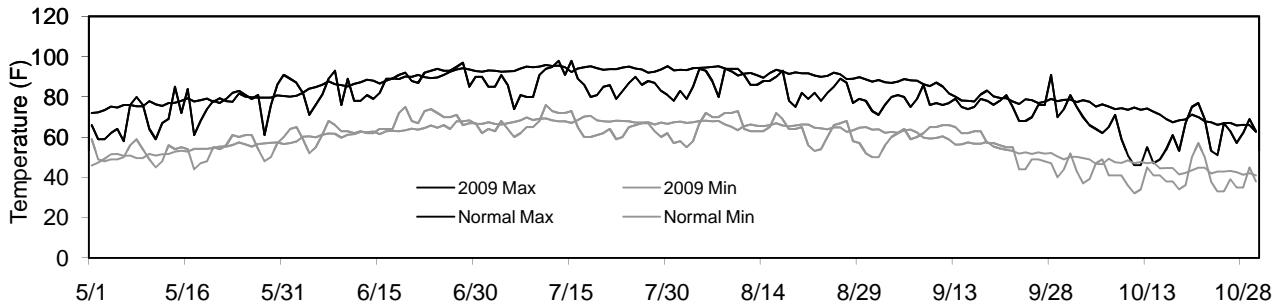
Cowley County Dryland Cotton Performance Test, 2009

County:	Cowley	Herbicides		
Location:	David and Martin Ray	Pre:	0	
Soil Type:	Vanoss Silt Loam	Post:	0	
Fertilizer (lbs/a)		PGR:	0	
	N P2O5 K2O	Insecticide:	5 lb Temik In-Furrow	
	75 0 0			
Dates:		Harvest Aids:		
Planting:	6/4/2009	Soil Test:	P (ppm) 12	pH 7.2
Harvest:	12/15/2009		K (ppm) 492	O.M.(%) 1.6
Seeding				
Rate:	70,000 seed/a	Previous Crop:	Sorghum	

Precipitation



Temperature



Month	Avg Temp		Precipitation		GDD	
	2009	Normal	2009	Normal	2009	Normal
May	63	65	4.4	3.6	150	166
June	76	76	6.9	3.9	484	466
July	75	81	2.6	3.0	476	649
Aug	74	79	6.1	2.9	435	581
Sept	67	69	2.4	3.2	211	284
Oct	51	58	4.6	3.7	16	25
Total	68	71	27.0	20.3	1771	2171

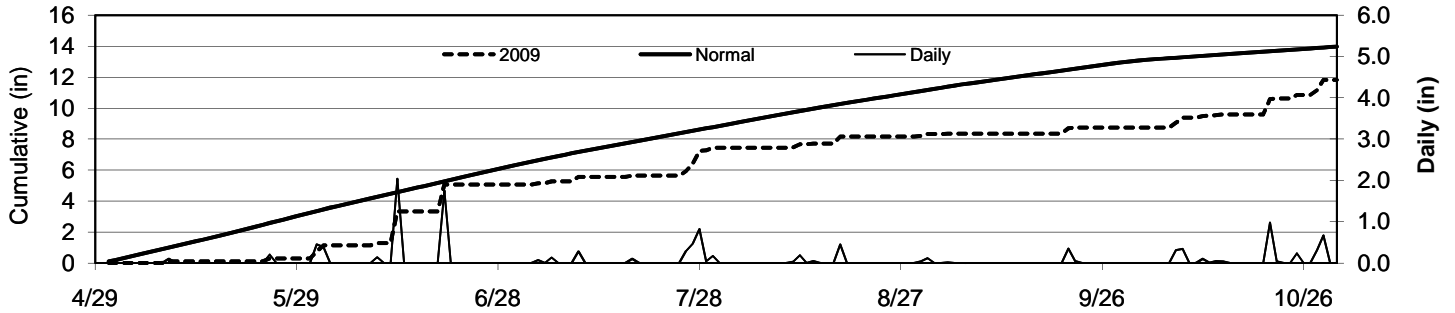
Table 1. Cowley County Dryland Cotton Performance Test, 2009

Company	Variety	Lint Yield, lb/a					Yield							
		2009	2008	2004	2yr	3yr	% of Test Avg	% Lint	Mic	Length in	Unif. %	Strength g/tex	Color Grade	
					Avg	Avg								
DP&L	DP_0924_B2RF	527	--	--	--	--	71	0.18	2.22	1.16	81.65	26.05	51	2
DP&L	DP_104_B2RF	777	--	--	--	--	104	0.24	2.29	1.19	81.30	25.45	51	2
DP&L	DP_121_RF	567	--	--	--	--	76	0.21	2.39	1.18	81.80	27.10	51	2
DP&L	DP_141_B2RF	342	--	--	--	--	46	0.16	2.17	1.19	78.95	24.75	51	2
DP&L	DP_0912_B2RF	599	--	--	--	--	80	0.21	2.18	1.16	81.40	24.40	51	2
DP&L	DP_0920_B2RF	693	--	--	--	--	93	0.22	2.31	1.17	81.05	25.90	51	2
Dyna-Gro	DG_2100_B2RF	751	--	--	--	--	101	0.20	2.34	1.17	82.70	26.25	51	2
Dyna-Gro	DG_2400_RF	575	--	--	--	--	77	0.21	2.33	1.18	82.17	27.63	51	2
Dyna-Gro	DG_CTO9304	465	--	--	--	--	62	0.18	2.25	1.19	80.60	22.10	51	2
Fibermax	FM_1740_B2F	681	--	--	--	--	91	0.21	2.53	1.19	83.35	29.50	51	2
Fibermax	FM_9058_F	861	--	--	--	--	115	0.24	2.47	1.26	83.75	27.80	51	2
Fibermax	FM_9160_B2F	536	--	--	--	--	72	0.22	2.33	1.19	82.15	24.45	51	1
Fibermax	FM_9180_B2F	931	--	--	--	--	125	0.23	2.56	1.24	82.70	30.80	51	2
PhytoGen	PHY_315_WRF	706	--	--	--	--	95	0.23	2.23	1.15	79.40	23.85	51	2
PhytoGen	PHY_375_WRF	704	--	--	--	--	94	0.21	2.44	1.20	81.95	26.00	51	2
PhytoGen	PHY_485_WRF	549	--	--	--	--	74	0.19	2.48	1.17	83.20	28.65	51	2
PhytoGen	PHY_367_WRF	1076	--	--	--	--	144	0.22	2.22	1.19	81.35	24.90	51	2
PhytoGen	PHY_525_WRF	372	--	--	--	--	50	0.19	2.27	1.20	79.75	26.25	51	2
PhytoGen	PHY_565_WRF	416	--	--	--	--	56	0.20	2.20	1.17	80.45	24.25	51	2
PhytoGen	PHY_5922_WRF	402	--	--	--	--	54	0.21	2.19	1.16	80.15	24.90	51	2
Stoneville	ST_4288_B2F	568	--	--	--	--	76	0.20	2.28	1.16	80.67	26.17	51	2
	Average	746	--	492	--	--	100	0.207	2.3	1.18	81.45	26.1	--	--
	CV (%)	34	--	16	--	--		17	5	2	1	7	--	--
	LSD(0.05)	273	--	118	--	--		0.05	0.15	0.02	1.32	2.40	--	--

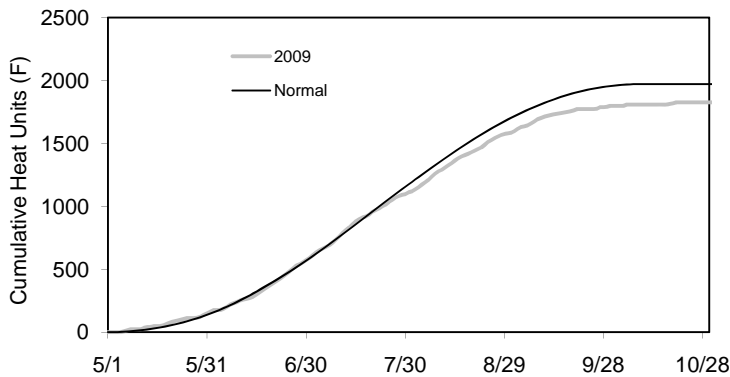
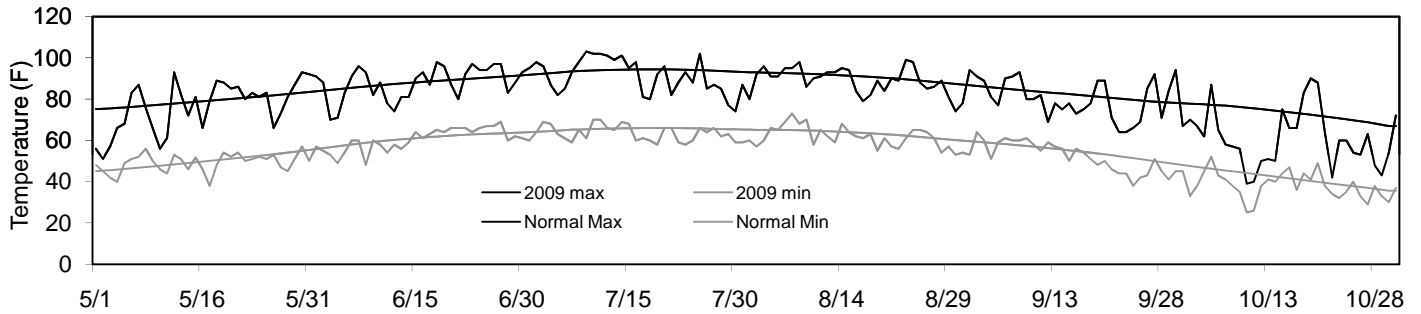
Stevens County Irrigated Cotton Performance Test, 2009

County:	Cowley	Soil Test:	P (ppm) 12	pH 7.2
Location:	Lahey Farms (Moscow)		K (ppm) 492	O.M.(%) 1.6
Soil Type:	Richfield			
		Previous Crop:	Corn	
Seeding Rate:	70,000 seed/a			
Dates:				
Planting:	6/4/2009			
Harvest:	12/15/2009			

Precipitation



Temperature



Month	Avg Temp		Precipitation		GDD	
	2009	Normal	2009	Normal	2009	Normal
May	63	64	0.3	3.2	150	138
June	74	74	4.8	3.0	423	431
July	77	80	2.4	2.6	539	607
Aug	75	77	0.9	2.3	474	528
Sept	66	68	0.4	1.9	215	253
Oct	50	56	3.1	1.0	27	16
Total	68	70	11.8	14.0	1827	1972

Table 2. Stevens County Irrigated Cotton Performance Test, 2009

Company	Variety	Lint Yield, lb/a					Yield % of Test Avg	2009						
		2009	2008	2007	2yr Avg	3yr Avg		% Lint	Mic	Length in	Unif. %	Strength g/tex	Color Grade	
DP&L	DP_0924_B2RF	978	468	--	723	--	94	0.25	3.32	1.15	82.45	28.35	63	1
DP&L	DP_104_B2RF	1349	514	1602	931	1155	129	0.28	3.38	1.15	83.75	31.15	63	1
DP&L	DP_121_RF	1090	445	1786	767	1107	104	0.24	3.49	1.17	81.85	28.85	62	1
DP&L	DP_141_B2RF	821	--	--	--	--	79	0.22	3.55	1.22	82.95	31.80	63	1
DP&L	DP_0912_B2RF	1258	--	--	--	--	121	0.27	4.07	1.12	82.55	30.60	63	1
DP&L	DP_0920_B2RF	1043	--	--	--	--	100	0.28	3.48	1.14	81.80	27.40	63	1
Fibermax	FM_1740_B2F	1247	--	--	--	--	120	0.27	3.75	1.14	82.45	28.00	63	1
Fibermax	FM_9058_F	1319	586	--	952	--	126	0.26	3.34	1.17	81.35	29.20	63	1
Fibermax	FM_9160_B2F	1229	--	--	--	--	118	0.29	3.89	1.23	84.45	30.50	63	1
Fibermax	FM_9180_B2F	1116	513	1578	815	1069	107	0.26	3.45	1.18	82.30	30.45	63	1
PhytoGen	PHY_315_WRF	948	418	1498	683	955	91	0.24	3.45	1.13	81.15	26.55	63	1
PhytoGen	PHY_375_WRF	921	558	1468	739	982	88	0.24	3.51	1.15	82.05	27.35	63	1
PhytoGen	PHY_485_WRF	1111	561	1856	836	1176	107	0.25	3.73	1.16	81.95	29.25	63	1
PhytoGen	PHY_367_WRF	1137	--	--	--	--	109	0.25	3.62	1.17	82.95	28.75	63	1
PhytoGen	PHY_525_WRF	685	--	--	--	--	66	0.22	3.35	1.18	81.00	28.55	63	1
PhytoGen	PHY_565_WRF	791	--	--	--	--	76	0.23	3.38	1.18	81.60	29.60	63	1
PhytoGen	PHY_5922_WRF	696	--	--	--	--	67	0.21	3.45	1.18	81.90	28.55	63	1
Stoneville	ST_4288_B2F	745	--	--	--	--	71	0.23	3.71	1.11	80.65	26.55	63	1
	Average	1043	490	1640	766	1057	100	0.25	3.55	1.16	82.18	28.97	--	--
	CV (%)	22	20	20	21	21		15	7	1	1	2	--	--
	LSD(0.05)	293	123	397	208	271		0.05	0.49	0.03	2.03	1.47	--	--

To access crop performance testing information electronically, visit our Web site. The information contained in this publication, plus more, is available for viewing or downloading at:

www.agronomy.ksu.edu/kscpt

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