

2010

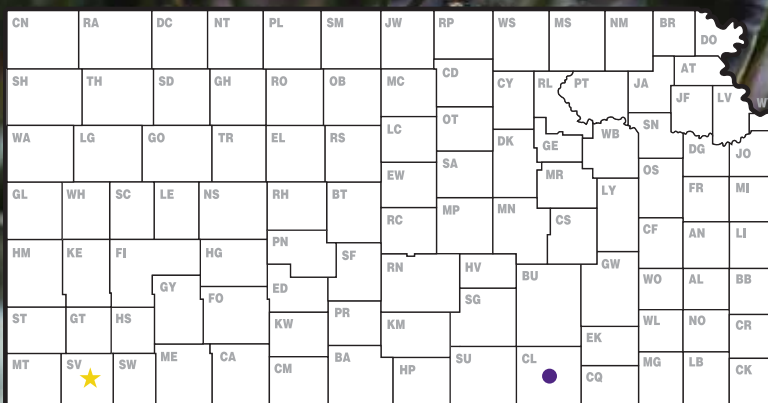
Kansas Performance Tests with

Cotton Varieties

Report of Progress 1046



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



● dryland

★ irrigated

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Entrants in 2010 Kansas Cotton Performance Tests

Americot/Nexgen Americot, Inc. Lubbock, TX 806-793-1431	Dyna-Gro Greeley, CO 970-356-4400	PhytoGen Dow AgroSciences Indianapolis, IN 317-337-3000
DP&L (Deltapine) Monsanto St. Louis, MO 800-511-SEED	Fiber Max Bayer CropScience RTP, NC 866-99-BAYER	Stoneville Bayer CropScience RTP, NC 866-99-BAYER

Contribution No. 11-259-S from the Kansas Agricultural Experiment Station.

2010 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 of 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 indicates 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 9 Crops report predicted a 78,000 bale crop, up 47% percent from the previous year. Yields averaged 780 pounds per acre, surpassing the previous high of 748 in 2009. Harvested acreage, at 48,000 acres, is up 14,000 acres from last year (Kansas Agricultural Statistics Service, Topeka).

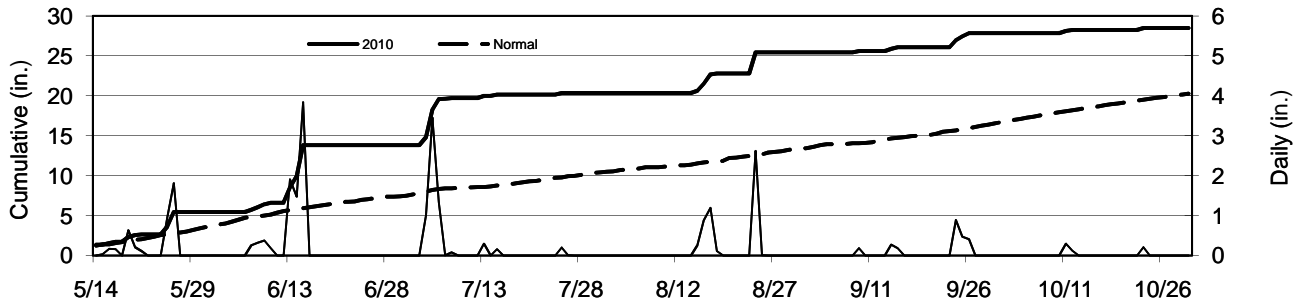
Production

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 is at: <http://www.ksre.ksu.edu/library/crpsl2/mf1088.pdf>.

Reno County Irrigated Cotton Performance Test, 2010

County:	Reno	Herbicides		
Location:	Partridge Experiment Station	Pre:	0	
Soil Type:	Funmar-Taver loam	Post:	0	
Fertilizer (lbs/a)	N	P2O5	K2O	
	120	0	0	
		PGR:	0	
		Insecticide:	5 lb Temik In-Furrow	
Dates		Harvest Aids		
Planting:	5/28/2010	Soil Test:	P (ppm)	15
Harvest:	11/18/2010		K (ppm)	320
			pH	6
			O.M.(%)	1.6
Seeding Rate:	70,000 seed/a	Previous Crop:	Corn	

Precipitation



Temperature

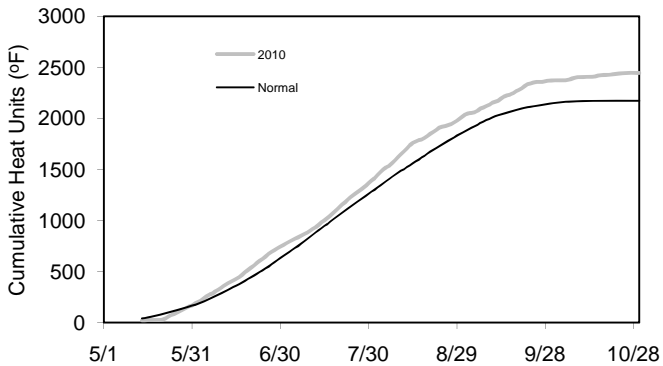
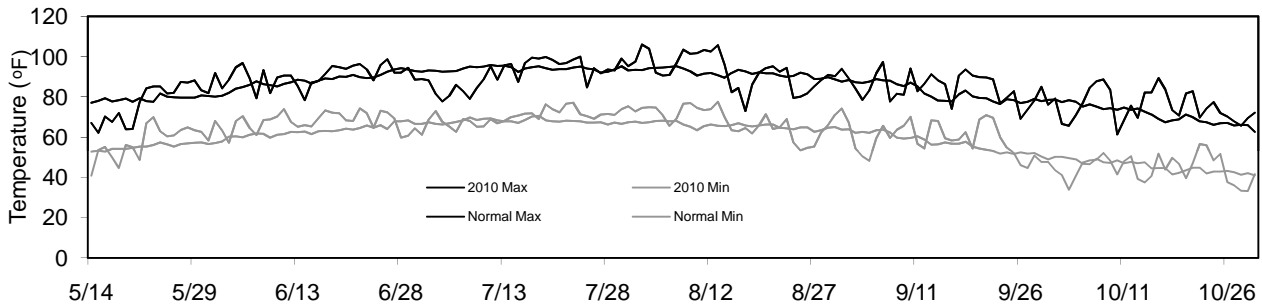


Table 1. Reno County Irrigated Cotton Performance Test, 2010

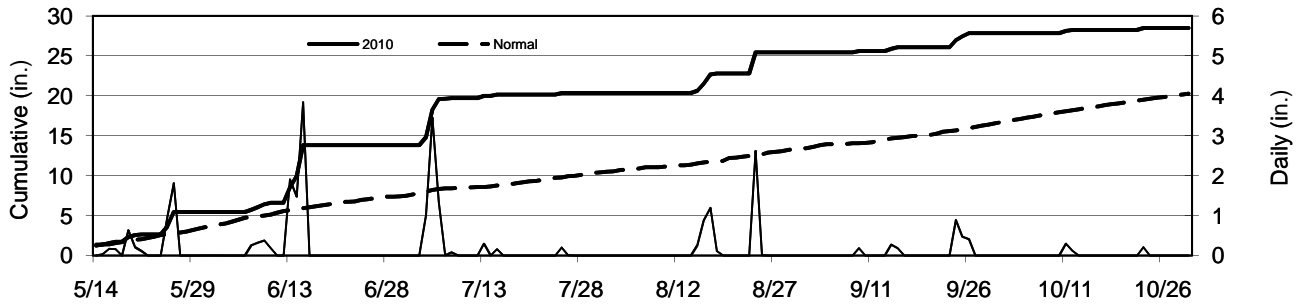
Company	Variety	2010												
		Lint Yield, lb/a					Yield		Length in	Unif. %	Strength g/tex	Color Grade		
		2010	2009	2007	2 yr Avg	3 yr Avg	% of Test Avg	% Lint						
DP&L	DP_104_B2RF	2089	--	1491	--	--	100	0.39	3.64	1.15	83.10	33.10	51	1
DP&L	DP0912_B2RF	2028	864	--	1446	--	97	0.45	4.50	1.15	84.50	30.20	51	1
DP&L	09R348B2R2	2361	--	--	--	--	113	0.46	4.12	1.15	81.50	28.50	51	1
DP&L	09R532B2R2	2283	--	--	--	--	110	0.42	4.58	1.22	84.00	32.60	61	1
Nexgen	NG_3348B2RF	2144	--	1703	--	--	103	0.43	4.47	1.17	83.50	28.70	51	1
Nexgen	NG_4010_B2RF	1990	--	--	--	--	96	0.44	4.72	1.15	84.05	30.65	51	1
PhytoGen	PHY_375_WRF	1797	993	1795	1395	1529	86	0.40	4.33	1.15	82.15	29.60	51	1
PhytoGen	PHY367_WRF	1965	1139	--	1552	--	94	0.40	3.84	1.16	82.55	31.00	51	1
Dyna_Gro	DG_2100_B2RF	2645	741	1460	1693	1615	127	0.49	4.04	1.19	83.80	30.60	41	2
Dyna_Gro	DG_2450_B2RF	2204	--	--	--	--	106	0.42	4.32	1.16	83.10	27.60	41	1
Dyna_Gro	DG_2570_B2RF	2049	1152	--	1601	--	98	0.43	4.75	1.14	82.55	29.55	41	1
Dyna_Gro	CT10624	1712	--	--	--	--	82	0.41	4.67	1.16	81.00	30.20	51	1
Fibermax	FM_9180B2F	2093	850	1641	1471	1528	100	0.40	4.16	1.21	84.50	33.00	51	1
Fibermax	FM_1740B2F	1944	1152	--	1548	--	93	0.43	4.48	1.18	84.40	30.10	41	2
Stoneville	ST_4288_B2F	2099	951	--	1525	--	101	0.43	5.04	1.15	82.50	29.00	51	2
Stoneville	ST_5288_B2F	2140	--	--	--	--	103	0.46	4.61	1.13	83.70	27.90	51	2
	Average	2084	1021	1411	1552	1505	100	0.427	4.4	1.16	83.27	30.1	--	--
	CV (%)	23	24	12	24	20		10	3	2	1	3	--	--
	LSD(0.05)	614	320	239	467	391		0.03	0.30	0.05	1.48	1.67	--	--

* 2009 and 2007 are from Pratt County Irrigated

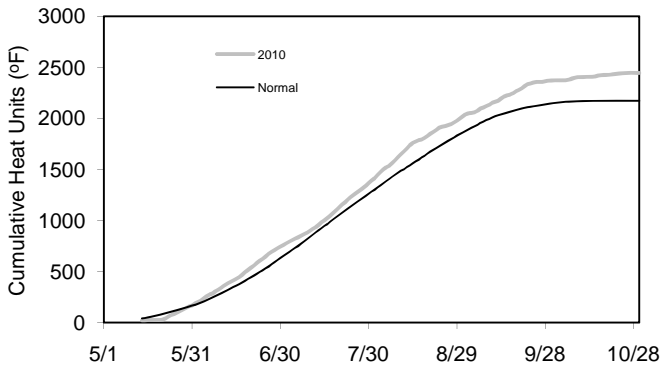
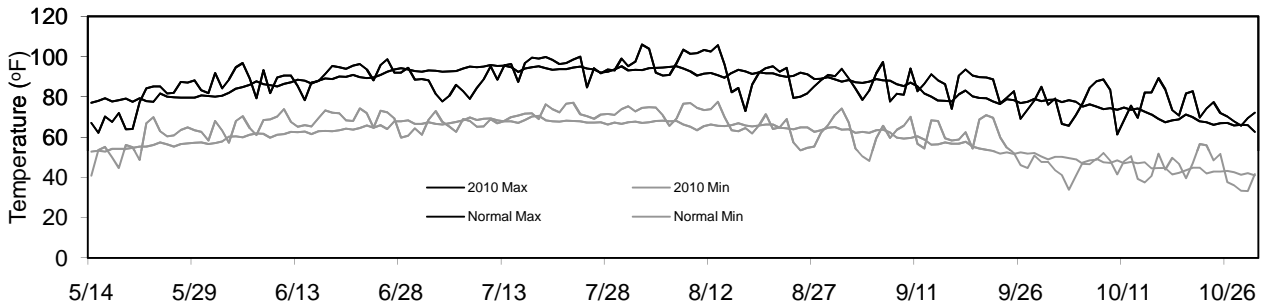
Reno County Dryland Cotton Performance Test, 2010

County:	Reno	Herbicides		
Location:	Partridge Experiment Station	Pre:	0	
Soil Type:	Shallabarger-Nalim Complex	Post:	0	
Fertilizer (lbs/a)		PGR:	0	
	N	P2O5	K2O	
	120	0	0	
Dates		Insecticide:	5 lb Temik In-Furrow	
Planting:	5/28/2010	Harvest Aids		
Harvest:	11/18/2010	Soil Test:	P (ppm) 15	pH 6
			K (ppm) 320	O.M.(%) 1.6
Seeding Rate:	66,000 seed/a	Previous Crop:	Corn	

Precipitation



Temperature



Month	Avg Temp		Precipitation		GDD	
	2010	Normal	2010	Normal	2010	Normal
May	64	65	5.4	3.6	168	166
June	79	76	8.4	3.9	577	466
July	81	81	6.6	3.0	646	649
Aug	80	79	5.1	2.9	632	581
Sept	72	69	2.4	3.2	348	284
Oct	60	58	0.6	3.7	74	25
Total	73	71	28.5	20.3	2445	2171

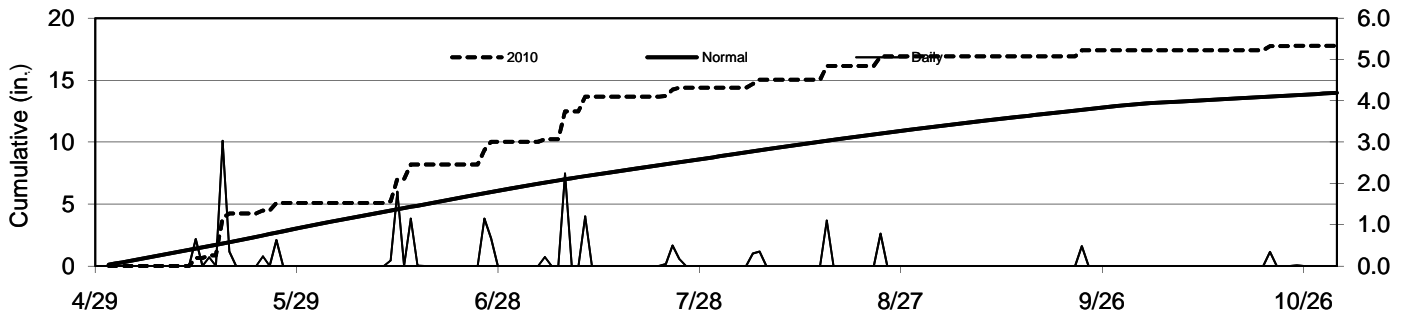
Table 2. Reno County Dryland Cotton Performance Test, 2010

Company	Variety	2010												
		Lint Yield, lb/a					Yield		Length in	Unif. %	Strength g/tex	Color Grade		
		2010	2007	2006	2 yr Avg	3 yr Avg	% of Test Avg	% Lint						
DP&L	DP_104_B2RF	1467	499	--	983	--	97	0.38	3.74	1.15	83.80	32.10	51	1
DP&L	DP0912_B2RF	1783	--	--	--	--	118	0.44	4.47	1.15	84.10	29.65	51	1
DP&L	09R348B2R2	1977	--	--	--	--	131	0.42	4.35	1.14	82.40	28.05	51	1
DP&L	09R532B2R2	1882	--	--	--	--	125	0.41	4.58	1.22	84.00	32.60	61	1
Nexgen	NG_3348B2RF	1479	523	--	1001	--	98	0.40	4.35	1.16	83.83	29.13	51	1
Nexgen	NG_4010_B2RF	1472	--	--	--	--	97	0.40	4.80	1.15	84.40	30.73	51	1
PhytoGen	PHY_375_WRF	1429	457	--	943	--	95	0.39	4.52	1.15	83.33	28.75	51	1
PhytoGen	PHY367_WRF	1417	--	--	--	--	94	0.38	4.21	1.16	83.48	29.98	51	1
Dyna_Gro	DG_2100_B2RF	1728	490	877	1109	1031	114	0.41	4.06	1.15	84.57	28.80	41	2
Dyna_Gro	DG_2450_B2RF	1680	--	--	--	--	111	0.40	4.39	1.16	83.33	27.93	41	1
Dyna_Gro	DG_2570_B2RF	1733	--	--	--	--	115	0.43	4.76	1.14	83.27	29.53	41	1
Dyna_Gro	CT10624	1264	--	--	--	--	84	0.40	4.67	1.16	81.00	30.20	51	1
Fibermax	FM_9180B2F	1669	370	--	1020	--	110	0.39	4.31	1.20	84.40	31.73	51	1
Fibermax	FM_1740B2F	1286	--	--	--	--	85	0.38	4.59	1.16	84.25	29.75	51	1
Stoneville	ST_4288_B2F	1461	--	--	--	--	97	0.40	4.98	1.15	82.95	29.13	51	1
Stoneville	ST_5288_B2F	1450	--	--	--	--	96	0.43	4.66	1.14	83.33	27.47	51	1
	Average	1511	460	773	986	915	100	0.401	4.5	1.16	83.63	29.6	--	--
	CV (%)	32	21	25	26	26		7	4	2	1	3	--	--
	LSD(0.05)	553	122	274	338	316		0.03	0.36	0.05	1.41	1.68	--	--

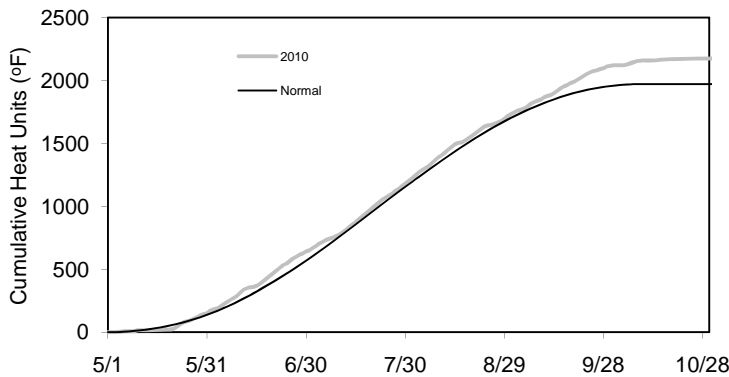
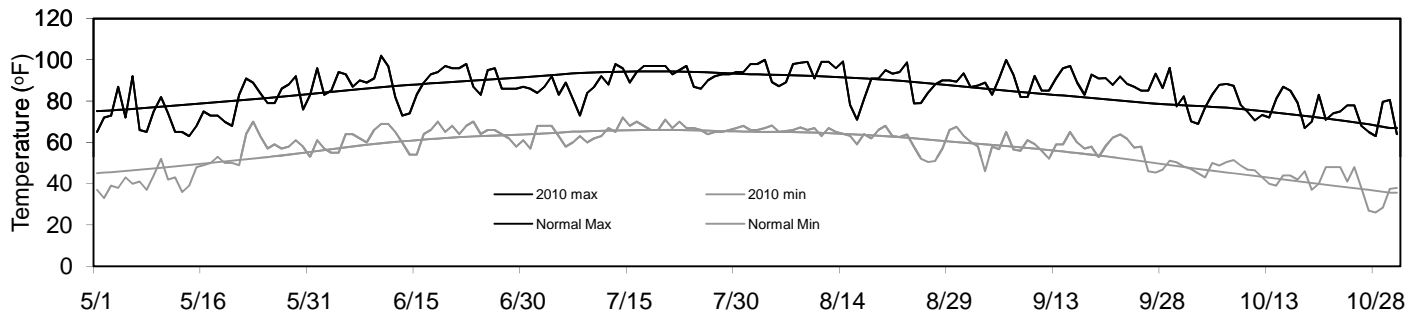
Stevens County Irrigated Cotton Performance Test, 2010

County:	Stevens	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:	5/25/2010			
Harvest:	11/16/2010			

Precipitation



Temperature



Month	Avg Temp		Precipitation		GDD	
	2010	Normal	2010	Normal	2010	Normal
May	63	64	5.1	3.2	152	138
June	76	74	4.9	3.0	490	431
July	78	80	4.4	2.6	560	607
Aug	77	77	2.5	2.3	534	528
Sept	73	68	0.5	1.9	381	253
Oct	60	58	0.4	1.0	61	16
Total	71	70	17.8	14.0	2176	1972

Table 3. Stevens County Irrigated Cotton Performance Test, 2010

Company	Variety	Lint Yield, lb/a					Yield % of Test Avg	2010						
		2010	2009	2008	2 yr Avg	3 yr Avg		% Lint	Mic	Length in	Unif. %	Strength g/tex	Color Grade	
DP&L	DP_104_B2RF	2078	1349	514	1713	1313	103	0.32	2.67	1.16	81.35	28.65	51	1
DP&L	DP0912_B2RF	2248	1258	--	1753	--	111	0.36	3.18	1.14	81.15	28.00	41	2
DP&L	09R348B2R2	2044	--	--	--	--	101	0.34	2.55	1.11	79.30	25.70	41	2
DP&L	09R532B2R2	2430	--	--	--	--	121	0.41	2.99	1.22	82.30	30.25	51	1
Americot	NG_1551_RF	1672	--	512	--	--	83	0.28	3.18	1.20	82.30	31.20	41	1
Nexgen	NG_1572RF	1743	--	831	--	--	86	0.29	2.51	1.20	79.70	27.35	41	2
Nexgen	NG_2549B2RF	1909	--	--	--	--	95	0.33	2.87	1.13	81.50	27.90	41	2
Nexgen	NGH082_B2RF	1860	--	--	--	--	92	0.31	3.01	1.14	79.85	26.80	51	1
PhytoGen	PHY_375_WRF	2075	921	558	1498	1185	103	0.33	2.87	1.14	79.60	26.45	41	2
PhytoGen	PHY367_WRF	2077	1137	--	1607	--	103	0.32	2.87	1.16	81.00	27.90	41	2
Fibermax	FM_9180B2F	1904	1116	513	1510	1178	94	0.33	2.76	1.16	80.10	28.25	41	2
Fibermax	FM_1740B2F	2147	1247	--	1697	--	106	0.34	3.05	1.16	80.20	27.80	41	1
Stoneville	ST_4288_B2F	2072	745	--	1408	--	103	0.33	3.10	1.14	78.55	27.95	41	2
Stoneville	ST_5288_B2F	1976	--	--	--	--	98	0.35	3.17	1.17	80.80	28.60	51	1
	Average	2017	1043	490	1530	1183	100	0.33	2.91	1.16	80.55	28.06	--	--
	CV (%)	17	22	20	20	20		16	6	2	1	2	--	--
	LSD(0.05)	432	293	123	363	283		0.07	0.37	0.07	1.28	0.78	--	--

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

Excerpts from the
University Research Policy Agreement with Cooperating Seed Companies

Permission is hereby given to Kansas State University (KSU) to test varieties and/or hybrids designated on the attached entry forms in the manner indicated in the test announcements. I certify that seed submitted for testing is a true sample of the seed being offered for sale.

I understand that all results from Kansas Crop Performance Tests belong to the University and the public and shall be controlled by the University so as to produce the greatest benefit to the public. Performance data may be used in the following ways: 1) Tables may be reproduced in their entirety provided the source is referenced and data are not manipulated or reinterpreted; 2) Advertising statements by an individual company about the performance of its entries may be made as long as they are accurate statements about the data as published, with no reference to other companies' names or cultivars. In both cases, the following must be included with the reprint or ad citing the appropriate publication number and title: "See the official Kansas State University Agricultural Experiment Station and Cooperative Extension Service Report of Progress 1046, '2010 Kansas Performance Tests with Cotton Varieties,' or the Kansas Crop Performance Test Web site, www.agronomy.ksu.edu/kscpt, for details. Endorsement or recommendation by Kansas State University is not implied."

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