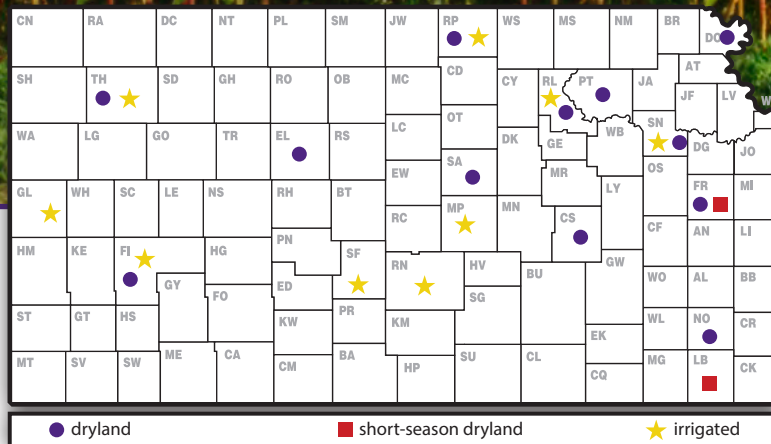


2015 Kansas Performance Tests with

Corn Hybrids



Report of Progress 1120



TABLE OF CONTENTS

2015 Corn Crop Review

Statewide Growing Conditions, Harvest Statistics, Diseases, Insects..... 1

2015 Performance Tests

Objectives and Procedures 2

Companies Entering 2015 Tests Table 1..... 3

Northeast Dryland: Manhattan, Riley County; Severance, Doniphan County; Onaga, Pottawatomie County

Weather Data 4

2015 Region Summary Table 2 5

Northeast Irrigated: Manhattan, Riley County; Scandia, Republic County; Topeka, Shawnee County

Weather Data 6

2015 Region Summary Table 3..... 7

Eastern Dryland: Ottawa, Franklin County; Erie, Neosho County; Topeka, Shawnee County

Weather Data..... 8

2015 Region Summary Table 4 9

Central Dryland: Belleville, Republic County; Assaria, Saline County

Weather Data..... 10

2015 Region Summary Table 5..... 11

Short Season: Ottawa, Franklin County; Parsons, Labette County

Weather Data 12

2015 Region Summary Table 6 13

South Central Irrigated: Moundridge, McPherson County; Macksville, Stafford County

Weather Data 14

2015 Region Summary Table 7 15

Western Dryland: Hays, Ellis County; Garden City, Finney County

Weather Data 17

2015 Region Summary Table 8 18

Western Irrigated: Colby, Thomas County; Tribune, Greeley County; Garden City, Finney County

Weather Data 19

2015 Region Summary Table 9 20

Entries in the 2015 Kansas Corn Performance Tests Table 10 21

Electronic Access, University Research Policy, and Duplication Policy back cover

2015 CORN CROP REVIEW

Statewide Growing Conditions

The 2015 growing season was generally very favorable for the corn crop in Kansas if producers could get it in the ground. Planting was interrupted from May until June for much of the state as frequent rains delayed field activity.

Corn planted prior to May enjoyed excellent early growth from the abundant topsoil moisture (Figure 1) and mild temperatures. The frequency of rains slowed during the summer months but still provided timely relief for the growing crop in most areas of the state. This corn had relatively few stresses to reduce grain quality and more than half of the crop was rated good or excellent throughout the season (Figure 2).

Corn planted later in the season suffered slow grain drydown and greater incidence of disease and lodging, but overall the 2015 Kansas corn crop saw above-average yields and high-quality grain. (Crop-Weather Reports, Kansas Agricultural Statistics, Topeka)

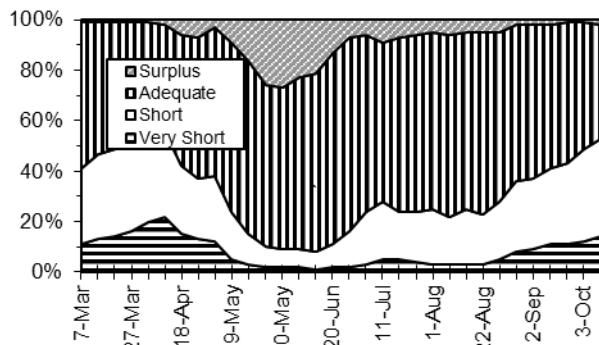


Figure 1. Statewide status of topsoil moisture

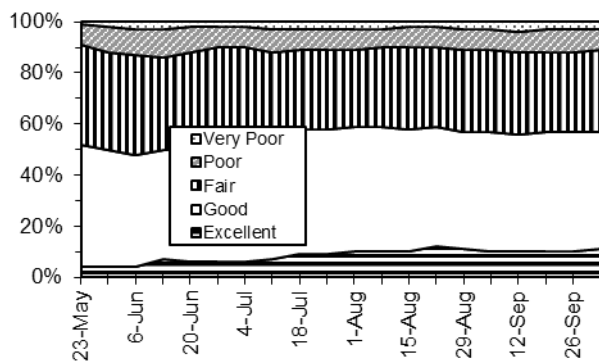


Figure 2. Condition of 2015 Kansas corn crop

Harvest Statistics

The September 11 Crops Report predicted a 555 million-bushel crop, down 2% from last year's production. The anticipated number of acres to be harvested for grain is 3.75 million, down 1% from last year. The predicted average yield of 148 bushels per acre is down 1 bushel from last year. (Kansas Agricultural Statistics Service, Topeka)

Diseases

Many growers harvested corn with above average yields across a large portion of the state. That being said, yields in many fields could have been another ten to thirty percent higher if timely fungicide applications would have been made. There were two significant foliar disease issues in Kansas during the 2015 growing season.

Gray leaf spot developed early, and with the cloudy, rainy weather in the eastern half of the state in May and June, it reached record setting levels. 2015 had the highest observed gray leaf spot levels in the 25 years that the disease has been present in Kansas. Unfortunately, because of low crop prices, many growers decided not to make the investment in a fungicide application and that was a mistake in many fields. One estimate from a private consultant indicated that 50% of the dryland and 75% of the irrigated corn in the McPherson County area had treatable levels of gray leaf spot.

The other significant foliar disease problem was southern rust. Southern rust moved up into Kansas almost a month earlier than normal thanks to tropical storms that pushed it up our way through Louisiana and Arkansas. Fields that were planted before May 1 escaped significant damage even though the disease was present in almost every field in southeast Kansas. Fields that did not get planted until June in southeast as well as other parts of Kansas, and there were many of them, had levels of southern rust that were economically damaging. There are not good records of how much spraying might have been done, but like with gray leaf spot, low crop prices caused many growers not to spray.

Other foliar diseases that were reported but did not require action included Holcus spot and northern corn leaf blight. There were considerably fewer reports of Goss's leaf blight in 2015 compared to the previous

two years. Lack of severe storms with hail early in the season may be partially responsible for that.

Late in the season, three diseases were prominent. Fusarium stalk rot and charcoal rot could be found in many fields across the state, although there were no reports of any serious lodging. Even without lodging, yield losses occur in fields with stalk rot due to much smaller ears on infected plants. In central and south central Kansas, many fields had significant levels of Diplodia ear rot. Heavy rains during the pollination period are favorable for the development of this disease. Hybrid selection is the only management tool for Diplodia. (Doug Jardine, Kansas State University Department of Plant Pathology)

Insects

Growers in southeast Kansas reported some early season problems with black cutworms. Commercial corn seed is treated with insecticides. These provide very effective protection for seed and seedlings for 3-4 weeks for those pests listed on the label. However, black cutworms are not susceptible and they usually infest 3-4 weeks after planting anyway.

Some whorl stage defoliation was observed all over the state, mainly by fall armyworms, but this had very little impact on yield. Worms in whorls are not vulnerable to insecticides, so very little can be, or should be, done about these 'ragworms.'

Corn rootworms also continue to be problematic in fields continuously planted to corn for 3+ years. Even those varieties with Bt rootworm protection need to be rotated or resistance will develop.

A few spider mite problems were reported from southwest Kansas, but overall, it seemed to be a relatively good year for growing corn in Kansas. (Holly Schwarting, Kansas State University Department of Entomology)

2015 PERFORMANCE TESTS

Objectives and Procedures

Corn performance tests, conducted annually by the Kansas Agricultural Experiment Station, provide farmers, extension workers, and seed industry personnel with unbiased agronomic information on many of the corn hybrids marketed in the state. Entry fees from private seed companies finance the tests. Because entry selection and location are voluntary, not all hybrids grown in the state are included in tests, and the same group of hybrids is not grown uniformly at all test locations. Most companies submit seed

treated with systemic insecticides, which can affect yield in some situations. A column listing insecticide seed treatments for each hybrid is included in Table 9 to help interpret yield results.

Three to four plots (replications) of each hybrid were grown at each location in a randomized complete-block design. Each harvested plot consisted of two rows trimmed to a specific length, ranging from 20 to 30 feet at the different locations.

Explanatory information is given in summaries preceding data for each test. Tables 2 through 8 contain results from the individual performance tests. Hybrids are listed together by company name. A summary of growing season weather data is given for individual test discussions. Precipitation graphs include cumulative lines for 2015 and the 30-year normal, in addition to the daily rainfall amounts since last fall. Temperature graphs include daily maximum and minimum temperatures compared with normal. General trends in precipitation and temperature relative to normal are readily observed in the graphs. A table with monthly totals and averages for the growing season also is included.

Grain yields are reported as bushels per acre of shelled grain (56 lb/bu) adjusted to a moisture content of 15.5%. Yields also are presented as percentage of test average to speed recognition of highest-yielding hybrids. Hybrids yielding more than 100% of the test average year after year merit consideration. Adaptation to individual farms for appropriate maturity, stalk strength, and other factors also must be considered.

Small differences in yield should not be overemphasized. Relative ranking and large differences are better indicators of performance. Least significant differences (LSD) are shown at the bottom of each table. Unless two hybrids differ by at least the LSD shown, little confidence can be placed in one being superior to the other. Yield values in the top LSD group in each test are displayed in bold. The coefficient of variability (CV) can be used in combination with the LSD to estimate the degree of confidence one can have in published data from replicated tests.

Table 1. Companies entering hybrids in the 2015 Kansas Corn Performance Tests

AgriGold Hybrids

St. Francisville, IL
800-262-7333
agrigold.com

Dekalb

St. Louis, MO
314-694-1000
monsanto.com

LG Seeds

Elmwood, IL
800-752-6847
lgseeds.com

NuTech Seed, LLC (G2 Genetics)

Ames IA
515-232-1997
nutechseed.com

AgVenture

Minden, NE
308-832-1050
agventure.com

Golden Acres Genetics

Waco, TX
254-761-9838
gaseed.com

MFA Incorporated (MorCorn)

Columbia, MO
573-874-5111
mfa-inc.com

Phillips Seed Farms, Inc.

Hope, KS
785-949-2204
phillipsseed.com

Advanta US, Inc (Phoenix)

Amarillo, TX
806-340-2031
advantaseeds.com

Golden Harvest

Minnetonka, MN
200-455-0956
syngentaseeds.com

Midland Genetics Group

Ottawa, KS
785-242-3598
midlandgenetics.com

Producers Hybrids

Battle Creek, NE
888-675-3190
producershybrids.com

B-H Genetics

Ganado, TX
361-771-2755
bhgenetics.com

Renk Seed Co.

Sun Prairie, WI
800-BUY-RENK
renkseed.com

NORTHEAST KANSAS DRYLAND CORN TESTS

Agronomy North Farm, Manhattan; Jane Lingenfelter, agronomist

Reading silt loam; soybean in 2014

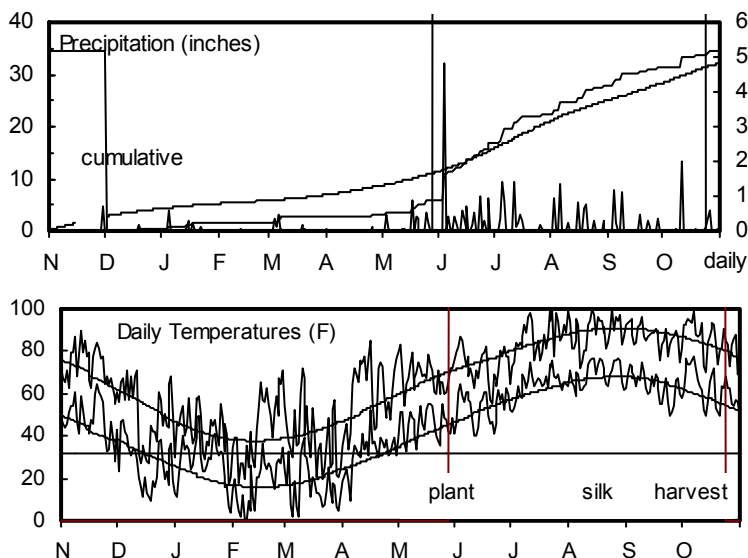
160 - 0 - 0 lb/a N, P, K

Planted on 4/28/2015; Harvested on 9/22/2015

Target stand of 23,000 plants/acre; 9.1 in. spacing

Planting was delayed by rain; otherwise good growing conditions with little stress.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	3.1	7.4	39	37	451	273
April	3.0	2.4	57	53	263	222
May	10.8	4.2	64	64	419	412
June	5.4	4.8	77	73	699	640
July	5.5	3.7	79	79	778	770
August	3.8	3.2	75	78	696	750
Sep.-Oct.	3.9	5.1	67	66	1040	563
Totals:	35.5	30.9	56	54	4,345	3,628



Fuhrman Farms, Inc., Severance; Al Fuhrman, cooperater; Jane Lingenfelter, agronomist

Ulysses silt loam; soybean in 2014

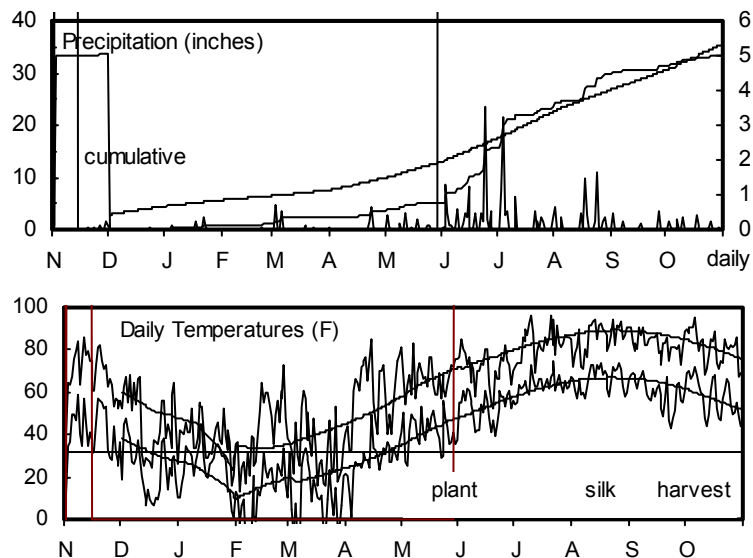
180 - 0 - 0 lb/a N, P, K

Planted on 4/29/2015; Harvested on 10/14/2015

Target stand of 30,000 plants/acre; 7.0 in. spacing

Timely rains throughout growing season.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	5.3	8.5	35	36	425	247
April	1.2	2.9	54	54	234	216
May	10.6	4.2	62	64	376	417
June	7.5	4.7	74	73	661	643
July	5.5	3.9	76	78	715	761
August	1.5	3.7	71	76	609	732
Sep.-Oct.	2.3	4.7	62	68	863	528
Totals:	33.9	32.6	52	53	3,885	3,545



Rezac Farms, Onaga; Lance Rezac, cooperater; Jane Lingenfelter, agronomist

Kipson silty clay loam; soybean in 2014

185 - 0 - 0 lb/a N, P, K

Planted on 4/29/2015; Harvested on 9/23/2015

Target stand of 23,000 plants/acre; 9.1 in. spacing

Planting was delayed by rain; otherwise good growing conditions with little stress.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	5.6	9.1	37	36	432	261
April	1.6	2.9	56	53	263	208
May	10.3	4.3	64	62	417	373
June	6.8	4.3	77	72	698	614
July	8.8	4.4	78	77	753	742
August	3.3	3.5	73	76	658	716
Sep.-Oct.	3.8	5.2	65	64	950	496
Totals:	40.2	33.8	54	53	4,171	3,409

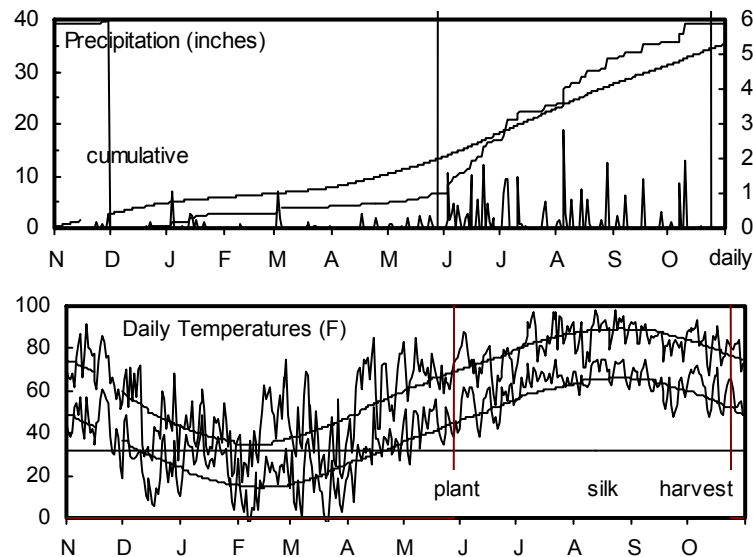


TABLE 2. NORTHEAST KANSAS DRYLAND CORN PERFORMANCE TEST, 2015

BRAND	NAME	MANHATTAN, Riley County					SEVERANCE, Doniphan County					Onaga, Pottawatomie County					
		YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	DAYS (silk)	1000 ppa	YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	1000 ppa	YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	1000 ppa
AGRIGOLD	A6542VT2PRODG	150	85	59	15	64	24	--	--	--	--	--	--	--	--	--	--
AGRIGOLD	A6553VT2RIB	200	113	60	16	66	24	--	--	--	--	--	--	--	--	--	--
AGRIGOLD	A6619VT2RIBD1	196	111	58	17	66	22	--	--	--	--	--	--	--	--	--	--
DEKALB	DKC51-20	155	87	57	12	64	24	167	81	58	11	30	127	72	58	14	25
DEKALB	DKC60-67	189	107	61	16	78	25	194	94	62	12	32	174	98	61	16	24
DEKALB	DKC64-89	196	110	60	16	76	23	207	100	62	12	33	176	99	61	14	25
LG SEEDS	LG5612STXRIB	--	--	--	--	--	--	--	--	--	--	--	173	98	59	17	15
LG SEEDS	LG5618STXRIB	--	--	--	--	--	--	201	98	63	13	30	204	115	61	12	22
LG SEEDS	LG5630VT3PRIB	188	106	60	15	72	25	--	--	--	--	--	--	--	--	--	--
LG SEEDS	LG5663VT2PRIB	173	98	59	17	73	20	--	--	--	--	--	--	--	--	--	--
LG SEEDS	LG5677VT2PRIB	186	105	58	16	72	23	221	107	60	12	30	--	--	--	--	--
LG SEEDS	LG5717VT2PRIB	--	--	--	--	--	--	215	104	62	13	29	191	108	60	16	23
MATURITY CHECK	EARLY	162	91	59	12	64	22	187	91	61	11	26	157	88	59	15	20
MATURITY CHECK	LATE	190	107	62	18	64	29	204	99	63	14	24	213	120	61	16	28
MATURITY CHECK	MED	167	94	61	17	64	29	220	107	62	13	34	192	108	61	19	28
MIDLAND	436VLG	170	96	59	16	76	23	196	95	61	12	30	174	98	59	17	28
MIDLAND	573PRW	173	98	61	18	72	20	--	--	--	--	--	168	95	61	16	26
MIDLAND	594PR DG	190	107	58	16	65	23	219	106	60	12	29	191	108	58	18	23
MIDLAND	653PR	175	99	60	16	64	24	212	103	64	13	29	179	101	62	14	20
MIDLAND	656PR	184	104	59	17	66	23	231	112	62	13	31	207	117	60	16	26
MIDLAND	714PRW	182	103	59	15	66	21	222	108	61	13	31	186	105	58	16	21
MIDLAND	735PRW	179	101	58	18	73	23	212	103	61	14	24	168	95	59	14	29
MIDLAND	775PR DG	188	106	60	17	76	25	--	--	--	--	--	180	102	60	15	24
NUTECH/G2 GENETICS	5F-113	179	101	62	17	75	20	186	90	64	13	32	199	113	62	17	25
NUTECH/G2 GENETICS	5F-709	170	96	59	16	76	22	194	94	62	12	35	168	95	60	16	25
NUTECH/G2 GENETICS	5F-811	163	92	61	16	64	18	208	101	63	13	33	191	108	62	16	31
NUTECH/G2 GENETICS	5F-814	180	102	58	16	75	21	213	104	61	12	28	193	109	59	16	23
PHILLIPS	PSF003	159	90	59	12	76	26	--	--	--	--	--	156	88	60	12	27
PHILLIPS	PSF082	165	93	59	15	64	20	--	--	--	--	--	168	95	60	16	24
PHILLIPS	PSF133	181	102	58	17	64	17	--	--	--	--	--	190	107	59	18	19
PHILLIPS	PSF143	174	98	60	17	73	21	--	--	--	--	--	172	97	61	15	22
PHOENIX	5785GT	161	91	58	15	64	24	187	91	60	11	27	168	95	58	14	23
PHOENIX	5808VR	168	95	60	14	72	28	206	100	62	12	33	138	78	60	14	27
PHOENIX	5942A4	175	99	60	15	64	22	199	97	61	12	27	161	91	59	14	26
PHOENIX	6390A4	193	109	59	15	76	26	182	88	60	11	32	167	94	59	15	25
PHOENIX	6542A4	186	105	56	17	73	19	218	106	60	14	30	184	104	57	18	21
PRODUCERS	6878 STXRIB	--	--	--	--	--	--	190	92	60	11	32	--	--	--	--	--
PRODUCERS	7213VT2RIB	--	--	--	--	--	--	215	105	61	12	31	--	--	--	--	--
PRODUCERS	7224VT3PRIB	--	--	--	--	--	--	234	114	60	12	35	--	--	--	--	--
PRODUCERS	7268STXRIB	--	--	--	--	--	--	204	99	62	13	29	--	--	--	--	--
PRODUCERS	7358 STXRIB	--	--	--	--	--	--	221	107	61	12	32	--	--	--	--	--
	AVERAGE	177	100	59	16	70	23	206	100	61	12	30	177	100	60	16	24
	CV (%)	8	8	1	10	0	0	8	8	1	3	0	9	9	1	19	0
	LSD (0.05)	20	11	1	2	0	0	23	11	1	0	0	24	13	1	4	0

*Seed treatment and hybrid traits located in Table 10.

**Yields in bold in the top LSD group.

***Unless two hybrids differ by more than the LSD, little confidence can be placed in one being superior to the other.

NORTHEAST KANSAS SPRINKLER-IRRIGATED CORN TESTS

Ashland Bottoms Research Center, Manhattan; Jane Lingenfelter, agronomist

Sandy loam; soybean in 2014

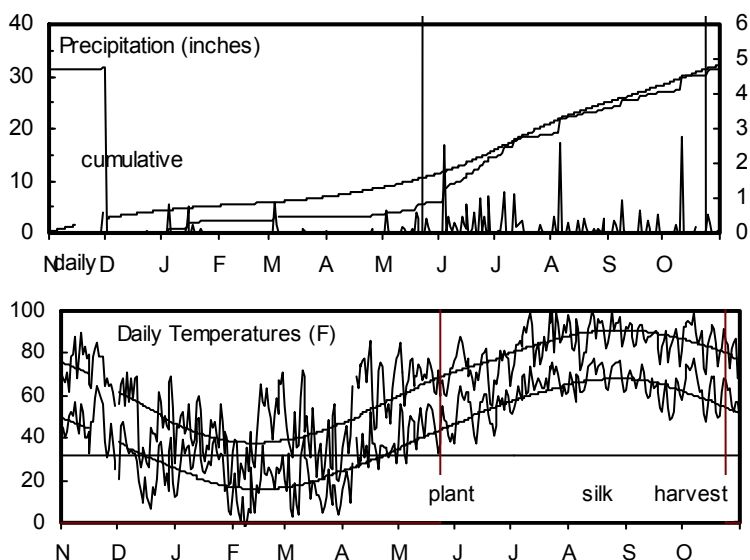
180 - 0 - 0 lb/a N, P, K

Planted on 4/23/2015; Harvested on 9/22/2015

Target stand of 30,000 plants/acre; 7.0 in. spacing

Timely rains and milder temperatures throughout growing season.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	3.6	7.4	38	37	439	273
April	2.7	2.4	57	53	270	222
May	8.6	4.2	64	64	421	412
June	4.2	4.8	77	73	702	640
July	5.0	3.7	79	79	779	770
August	3.2	3.2	75	78	680	750
Sep.-Oct.	4.7	5.1	66	66	1023	563
Totals:	32.1	30.9	55	54	4,315	3,628



Irrigation Experiment Field, Scandia; Andrew Esser, agronomist; Michael Larson and Doug Stensaaas, technicians

Crete silt loam; soybean in 2014

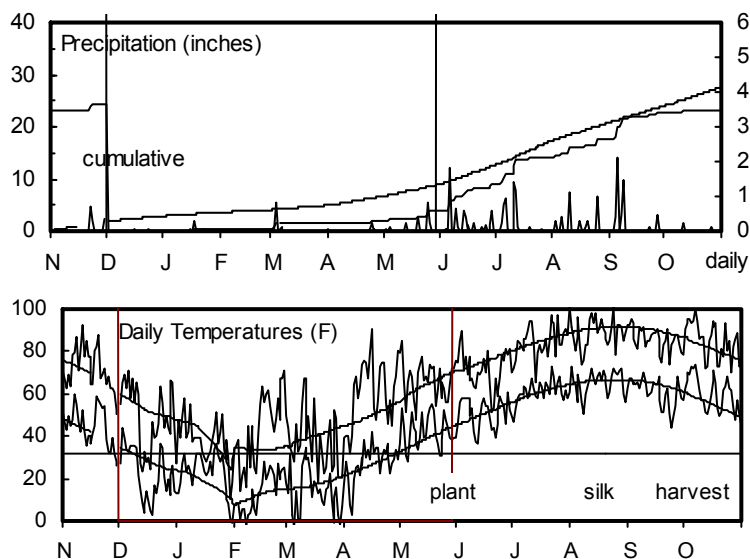
200 - 0 - 0 lb/a N, P, K

Planted on 4/29/2015; Harvested on 10/30/2015

Target stand of 30,000 plants/acre; 7.0 in. spacing

Period from the beginning of May until the middle of June when 3 consecutive days was the longest interval without a rain.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	2.1	6.0	36	34	435	235
April	1.9	2.1	53	52	215	204
May	5.2	3.5	61	63	354	393
June	4.9	4.3	74	73	639	635
July	3.6	3.2	77	78	716	755
August	5.1	3.1	73	77	647	731
Sep.-Oct.	1.7	4.2	65	65	958	515
Totals:	24.5	26.5	53	52	3,964	3,468



Kansas River Valley Experiment Field, Topeka; Eric Adee, agronomist; Charles Clark and William Riley, technicians

Eudora silt loam; soybean in 2014

180 - 52 - 0 lb/a N, P, K

Planted on 4/21/2015; Harvested on 9/17/2015

Target stand of 26,000 plants/acre; 8.0 in. spacing

Wet spring followed by timely rains during the summer.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	4.4	8.4	38	37	439	268
April	2.3	2.8	57	54	269	221
May	10.3	3.7	64	64	430	414
June	4.4	4.8	77	73	712	652
July	6.1	3.8	79	78	765	774
August	2.7	3.5	74	77	684	751
Sep.-Oct.	6.3	4.6	65	66	987	547
Totals:	36.4	31.6	55	54	4,286	3,627

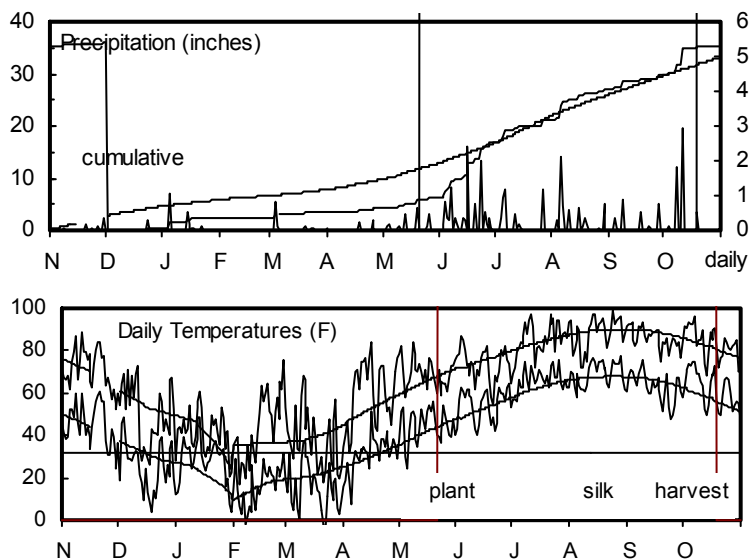


TABLE 3. NORTHEAST KANSAS SPRINKLER-IRRIGATED CORN PERFORMANCE TEST, 2015

BRAND	NAME	MANHATTAN, Riley County					SCANDIA, Republic County				TOPEKA, Shawnee County				
		YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	1000 ppa	YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	DAYS (silk)
AGRIGOLD	A6499STXRIB	--	--	--	--	--	247	104	61	12	--	--	--	--	--
AGRIGOLD	A6517VT3PRIB	--	--	--	--	--	249	105	59	11	--	--	--	--	--
AGRIGOLD	A6573VT2RIB	--	--	--	--	--	249	105	60	12	--	--	--	--	--
AGRIGOLD	A6579STX	--	--	--	--	--	253	107	61	12	--	--	--	--	--
DEKALB	DKC51-20	192	90	59	15	29	172	73	60	12	187	87	57	14	72
DEKALB	DKC60-67	211	99	62	17	32	226	95	61	12	212	98	60	17	74
DEKALB	DKC64-89	214	101	61	18	30	239	100	61	12	229	106	59	17	72
GOLDEN HARVEST	G11U58-3111	--	--	--	--	--	--	--	--	--	193	90	59	17	75
GOLDEN HARVEST	G13N18-3111	--	--	--	--	--	248	104	59	12	--	--	--	--	--
GOLDEN HARVEST	G14H66-5122A	--	--	--	--	--	234	98	59	12	--	--	--	--	--
GOLDEN HARVEST	G16K01-3111	--	--	--	--	--	217	91	60	12	--	--	--	--	--
LG SEEDS	LG5618STXRIB	219	103	60	20	31	--	--	--	--	238	111	59	18	74
LG SEEDS	LG5638VT2PRIB	--	--	--	--	--	--	--	--	--	232	108	59	18	76
LG SEEDS	LG5663VT2PRIB	219	103	60	18	35	234	99	62	12	--	--	--	--	--
LG SEEDS	LG5677VT2PRIB	179	84	59	16	28	243	102	60	12	204	94	58	17	76
LG SEEDS	LG5701VT3PRIB	--	--	--	--	--	273	115	61	12	--	--	--	--	--
MATURITY CHECK	EARLY	191	90	62	17	24	253	107	61	12	166	77	58	16	74
MATURITY CHECK	LATE	226	106	61	20	34	234	98	59	12	218	101	59	18	78
MATURITY CHECK	MED	230	108	62	17	31	232	98	58	12	217	101	59	18	75
MIDLAND	436VLG	212	99	60	18	35	245	103	61	12	186	86	58	18	74
MIDLAND	573PRW	--	--	--	--	--	192	81	63	12	226	105	59	18	74
MIDLAND	656PR	219	103	61	20	34	252	106	61	12	248	115	58	19	74
MIDLAND	714PRW	216	101	59	19	28	252	106	61	12	238	110	58	17	74
MIDLAND	735PRW	223	105	58	19	25	259	109	61	12	222	103	56	20	76
NUTECH/G2 GENETICS	5F-510	218	103	63	18	31	240	101	61	12	217	101	60	16	74
NUTECH/G2 GENETICS	5F-515	240	113	61	18	31	238	100	61	12	244	113	59	19	80
NUTECH/G2 GENETICS	5F-709	215	101	61	16	30	209	88	60	12	207	96	59	17	74
NUTECH/G2 GENETICS	5F-713	234	110	60	18	27	249	105	60	12	228	106	58	18	78
NUTECH/G2 GENETICS	5Z-015	223	105	62	19	29	260	110	62	12	226	105	59	19	76
NUTECH/G2 GENETICS	5Z-308	218	102	61	16	30	258	109	61	12	241	112	59	16	73
PHILLIPS	PSF003	180	85	61	16	31	211	89	60	12	180	83	59	15	71
PHILLIPS	PSF082	232	109	61	15	35	203	85	60	12	233	108	59	16	75
PHILLIPS	PSF133	200	94	59	19	22	258	109	60	12	223	104	58	19	75
PHILLIPS	PSF143	200	94	61	19	29	223	94	62	12	212	98	59	16	75
PHILLIPS	PSF172	--	--	--	--	--	223	94	62	12	--	--	--	--	--
PHOENIX	5785GT	195	91	59	16	29	208	88	60	12	184	86	58	15	73
PHOENIX	5808VR	206	97	61	18	32	243	102	61	12	212	98	59	17	76
PHOENIX	5942A4	200	94	60	18	34	231	97	60	12	223	103	58	16	74
PHOENIX	6390A4	239	112	59	16	36	227	96	61	12	209	97	57	16	73
PHOENIX	6542A4	209	98	57	19	26	263	111	61	12	209	97	56	19	76
PRODUCERS	6878 STXRIB	--	--	--	--	--	--	--	--	--	195	91	59	16	76
PRODUCERS	7213VT2RIB	--	--	--	--	--	--	--	--	--	201	93	59	16	73
PRODUCERS	7268STXRIB	--	--	--	--	--	--	--	--	--	249	115	59	19	74
PRODUCERS	7358 STXRIB	--	--	--	--	--	--	--	--	--	221	103	58	18	76
RENK	RK810SSTX	--	--	--	--	--	226	95	61	12	--	--	--	--	--
RENK	RK871VT2P	--	--	--	--	--	249	105	60	12	--	--	--	--	--
RENK	RK924DGV2P	--	--	--	--	--	246	104	60	12	--	--	--	--	--
RENK	RK930VT3P	--	--	--	--	--	261	110	61	12	--	--	--	--	--
RENK	RK941SSTX	--	--	--	--	--	242	102	62	12	--	--	--	--	--
	AVERAGE	213	100	60	18	30	237	100	61	12	216	100	58	17	75
	CV (%)	9	9	1	11	1	6	6	1	2	9	9	1	8	1
	LSD (0.05)	27	13	1	3	4	23	10	1	0	27	12	1	2	1

*Seed treatment and hybrid traits located in Table 10.

**Yields in bold in the top LSD group.

***Unless two hybrids differ by more than the LSD, little confidence can be placed in one being superior to the other.

EASTERN KANSAS DRYLAND CORN TESTS

East Central Kansas Experiment Field, Ottawa; Eric Adee, agronomist; Jim Kimball, technician

Woodson silt loam; soybean in 2014

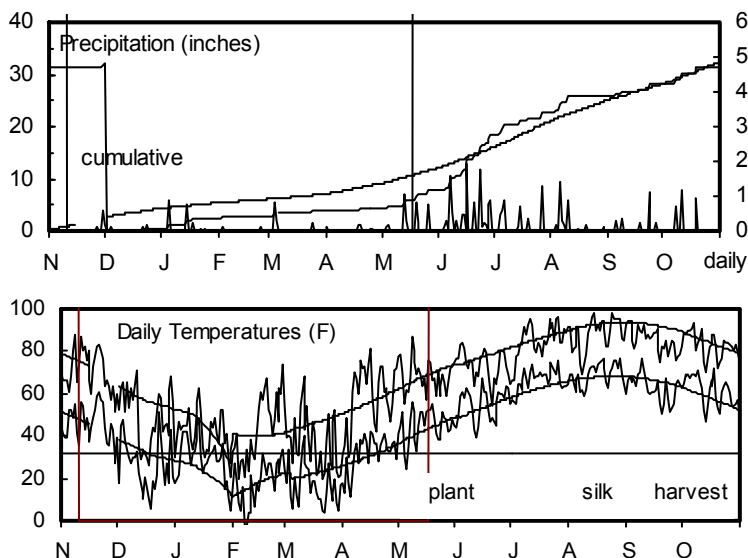
120 - 40 - 13 lb/a N, P, K

Planted on 4/17/2015; Harvested on 10/9/2015

Target stand of 23,000 plants/acre; 9.1 in. spacing

Wet spring followed by timely rains during the summer.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	4.8	7.7	38	39	423	319
April	3.5	2.7	56	56	260	260
May	10.7	3.9	64	65	428	449
June	4.4	4.6	77	74	721	667
July	3.3	3.7	79	80	765	778
August	2.3	3.0	74	79	670	756
Sep.-Oct.	3.5	5.1	65	68	965	591
Totals:	32.4	30.8	55	56	4,230	3,820



Private farm, Erie; Lonnie Mengarelli, research technician

Lanton silt loam; soybean in 2014

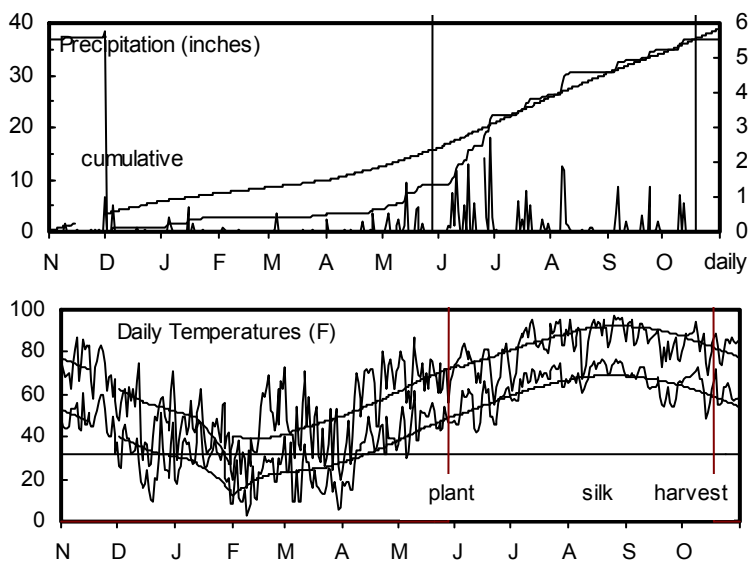
200 - 0 - 0 lb/a N, P, K

Planted on 4/28/2015; Harvested on 9/16/2015

Target stand of 25,000 plants/acre; 8.4 in. spacing

Extremely dry early on and then turned extremely wet; timely summer rains and mostly mild temperatures. Southern rust during fill period.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	5.9	10.6	40	40	421	315
April	4.6	3.3	58	56	288	254
May	13.2	4.6	65	66	448	461
June	4.1	4.6	77	74	728	681
July	4.4	4.3	80	80	800	791
August	4.4	3.7	75	79	687	763
Sep.-Oct.	2.4	5.9	67	68	1035	575
Totals:	39.0	36.9	56	56	4,405	3,840



Private farm northwest of Topeka; Eric Adee, agronomist; Charles Clark and William Riley, technicians

Silty clay loam; soybean in 2014

150 - 0 - 0 lb/a N, P, K

Planted on 4/22/2015; Harvested on 9/25/2015

Target stand of 22,000 plants/acre; 9.5 in. spacing

Wet spring followed by timely rains during the summer.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	5.2	8.4	37	37	431	268
April	1.6	2.8	56	54	263	221
May	10.3	3.7	64	64	417	414
June	6.8	4.8	77	73	698	652
July	8.8	3.8	78	78	753	774
August	3.3	3.5	73	77	658	751
Sep.-Oct.	4.3	4.6	64	66	950	547
Totals:	40.2	31.6	54	54	4,171	3,627

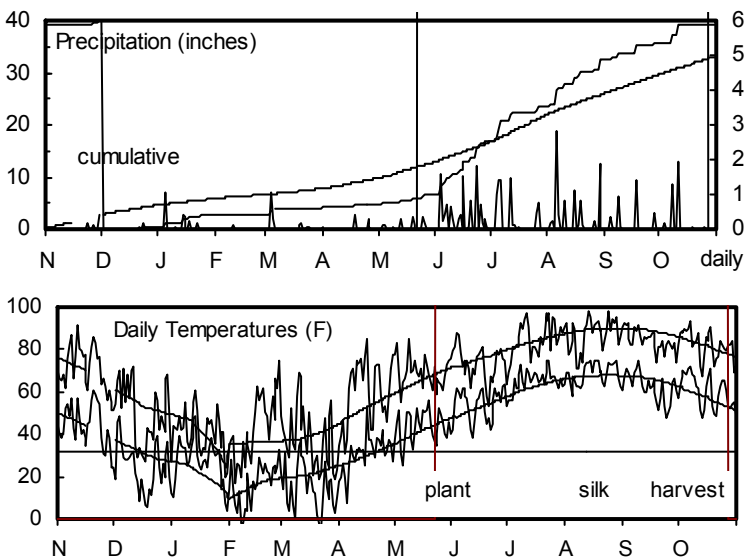


TABLE 4. EASTERN KANSAS DRYLAND CORN PERFORMANCE TEST, 2015

BRAND	NAME	OTTAWA, Franklin County					ERIE, Neosho County					1000 ppa	KIRO, Shawnee County					1000 ppa
		YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	DAYS (silks)	YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	DAYS (silks)		YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	DAYS (silks)	
AGRIGOLD	A6517VT3PRIB	--	--	--	--	--	185	105	56	19	66	26	--	--	--	--	--	--
AGRIGOLD	A6542VT2PRODG	124	93	53	16	80	--	--	--	--	--	--	--	--	--	--	--	--
AGRIGOLD	A6553VT2RIB	129	97	57	16	79	--	--	--	--	--	--	--	--	--	--	--	--
AGRIGOLD	A6579STX	--	--	--	--	--	172	98	58	17	66	27	--	--	--	--	--	--
AGRIGOLD	A6619VT2RIBD1	134	101	54	19	79	179	102	56	16	64	24	--	--	--	--	--	--
DEKALB	DKC51-20	133	100	57	14	79	163	93	57	14	61	26	153	79	57	14	72	22
DEKALB	DKC60-67	134	101	58	17	81	182	103	58	16	62	25	177	92	60	13	72	22
DEKALB	DKC64-89	134	101	58	15	78	183	104	58	16	61	25	195	101	61	14	72	23
GOLDEN HARVEST	G11U58-3111	126	95	57	17	80	--	--	--	--	--	--	191	99	60	14	73	22
MATURITY CHECK	EARLY	124	93	57	15	80	186	106	57	16	61	26	185	96	60	14	72	22
MATURITY CHECK	LATE	136	103	55	19	83	182	103	58	15	62	25	210	109	61	15	76	24
MATURITY CHECK	MED	142	107	58	18	81	185	105	57	16	63	24	186	97	61	16	74	24
MFA	MORCORN MC3022	118	89	58	14	78	153	87	57	14	58	26	157	82	60	13	72	23
MFA	MORCORN MC3544	121	91	57	14	79	188	107	58	16	61	26	188	98	60	13	72	22
MFA	MORCORN MC3966	131	99	55	17	81	190	108	57	15	64	26	220	114	60	15	72	23
MFA	MORCORN MC4354	133	100	57	16	80	182	104	57	15	62	26	202	105	60	14	72	23
MFA	MORCORN MC4377	139	105	54	19	81	178	101	56	16	65	24	206	107	58	17	73	22
MIDLAND	436VLG	132	99	56	16	80	182	103	57	16	62	24	190	98	59	15	72	23
MIDLAND	573PRW	--	--	--	--	--	--	--	--	--	--	--	196	102	61	15	73	21
MIDLAND	594PR DG	145	109	54	19	80	191	109	56	16	65	24	222	115	59	17	72	23
MIDLAND	653PR	132	100	57	18	80	177	101	59	16	64	26	195	101	60	14	73	22
MIDLAND	656PR	167	126	56	19	80	213	121	58	18	63	25	221	115	60	17	72	21
MIDLAND	714PRW	--	--	--	--	--	177	100	57	17	66	24	205	106	59	16	72	23
MIDLAND	735PRW	--	--	--	--	--	102	58	57	18	64	24	203	105	58	17	74	22
MIDLAND	775PR DG	134	101	56	17	79	173	98	58	16	62	25	195	101	60	14	73	22
NUTECH/G2 GENETICS	5F-113	128	96	57	18	82	192	109	59	18	66	26	216	112	61	15	73	24
NUTECH/G2 GENETICS	5F-709	148	112	59	17	79	194	110	56	16	64	25	184	95	60	14	72	24
NUTECH/G2 GENETICS	5F-811	132	99	58	18	82	186	106	58	17	65	25	189	98	61	15	73	23
NUTECH/G2 GENETICS	5F-814	133	100	56	18	82	158	90	57	17	63	25	183	95	59	15	73	19
PHILLIPS	PSF003 VT2Pro	125	94	58	14	81	--	--	--	--	--	--	170	88	59	13	71	25
PHILLIPS	PSF082 VT3Pro	123	93	57	14	80	--	--	--	--	--	--	193	100	60	13	72	24
PHILLIPS	PSF133	142	107	54	19	80	--	--	--	--	--	--	206	107	59	17	73	20
PHILLIPS	PSF143	129	97	57	17	80	--	--	--	--	--	--	195	101	61	14	73	23
PHILLIPS	PSF172	132	99	57	19	80	--	--	--	--	--	--	177	92	60	14	73	23
PHOENIX	5785GT	114	86	56	14	79	154	87	57	16	59	24	166	86	59	14	72	24
PHOENIX	5808VR	138	104	57	17	81	--	--	--	--	--	--	200	104	60	14	73	24
PHOENIX	5942A4	130	97	57	16	80	--	--	--	--	--	--	191	99	60	14	74	23
PHOENIX	6390A4	139	105	57	15	80	193	110	57	16	59	25	191	99	56	13	72	23
PHOENIX	6542A4	139	104	54	18	81	120	68	56	19	66	20	190	99	58	15	74	23
PRODUCERS	6108 STXRIB	--	--	--	--	--	161	91	57	14	62	26	--	--	--	--	--	--
PRODUCERS	6318 STXRIB	--	--	--	--	--	173	98	58	14	62	26	--	--	--	--	--	--
PRODUCERS	6878 STXRIB	--	--	--	--	--	190	108	57	15	66	26	--	--	--	--	--	--
PRODUCERS	7068 STXRIB	--	--	--	--	--	186	106	57	17	63	25	--	--	--	--	--	--
	AVERAGE	133	100	56	17	80	176	100	57	16	63	25	193	100	60	15	73	22
	CV (%)	8	8	1	4	1	8	8	1	4	2	0	8	8	2	3	0	0
	LSD (0.05)	15	12	1	1	1	19	11	1	1	2	3	21	11	1	1	0	1

*Seed treatment and hybrid traits located in Table 10.

**Yields in bold in the top LSD group.

***Unless two hybrids differ by more than the LSD, little confidence can be placed in one being superior to the other.

CENTRAL KANSAS DRYLAND CORN TESTS

North Central Experiment Field, Belleville; Andrew Esser, agronomist; Michael Larson and Doug Stensaas, technicians

Crete silt loam; soybean in 2014

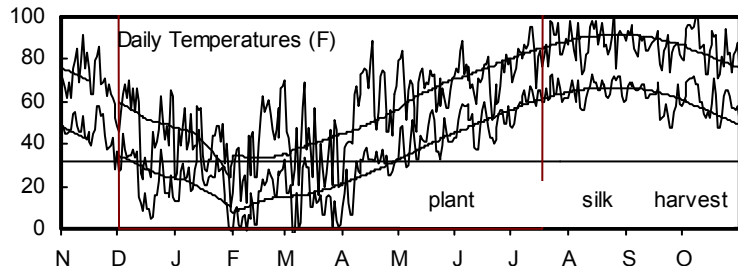
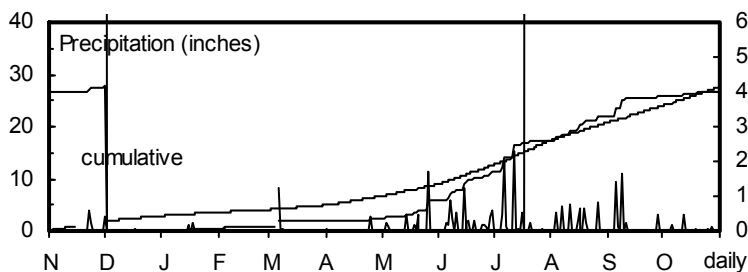
150 - 0 - 0 lb/a N, P, K

Planted on 6/17/2015; Harvested on 11/11/2015

Target stand of 22,000 plants/acre; 9.5 in. spacing

Planting was delayed by frequent rain in the spring.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	2.9	6.0	35	34	395	235
April	3.3	2.1	53	52	220	204
May	5.8	3.5	61	63	352	393
June	5.8	4.3	74	73	646	635
July	4.6	3.2	77	78	720	755
August	3.9	3.1	74	77	660	731
Sep.-Oct.	1.7	4.2	66	65	959	515
Totals:	27.9	26.5	53	52	3,950	3,468



Clayton Short Farm, Assaria; Clayon Short, cooperater; Jane Lingenfelter, agronomist

Smolan silt loam; soybean in 2014

180 - 0 - 0 lb/a N, P, K

Planted on 6/10/2015; Harvested on 11/24/2015

Target stand of 23,000 plants/acre; 9.1 in. spacing

Rains delayed planting into June. Some plots were lodged, possibly due to the presence of Fusarium stalk rot.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	3.4	8.3	40	39	501	327
April	1.8	2.8	57	55	290	236
May	8.3	4.8	64	65	431	432
June	4.5	3.9	80	75	739	690
July	3.9	4.1	82	81	817	805
August	3.9	3.3	77	80	719	790
Sep.-Oct.	2.3	3.7	69	68	1103	595
Totals:	28.1	30.9	57	56	4,598	3,875

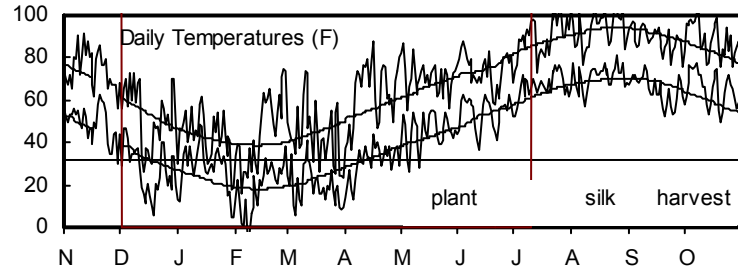
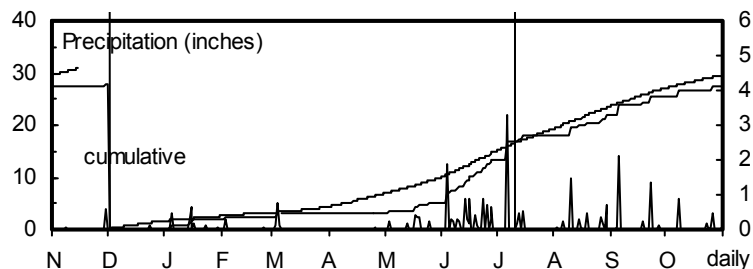


TABLE 5. CENTRAL KANSAS DRYLAND CORN PERFORMANCE TEST, 2015

BRAND	NAME	BELLEVILLE, Republic County				ASSARIA, Saline County				1000 ppa
		YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	
AGRIGOLD	A6542VT2PRODG	148	99	58	11	--	--	--	--	--
AGRIGOLD	A6553VT3PRIB	173	116	58	11	--	--	--	--	--
AGRIGOLD	A6619VT2RIBD1	152	101	57	12	--	--	--	--	--
DEKALB	DKC51-20	169	112	57	11	86	89	59	12	23
DEKALB	DKC60-67	160	107	60	12	95	99	59	12	19
DEKALB	DKC64-89	171	114	59	11	87	90	58	11	29
GOLDEN HARVEST	G13N18-3111	137	91	55	11	--	--	--	--	--
GOLDEN HARVEST	G14H66-5122A	149	100	56	12	--	--	--	--	--
GOLDEN HARVEST	G16K01-3111	146	97	57	13	--	--	--	--	--
MATURITY CHECK	EARLY	178	119	57	12	90	94	59	12	22
MATURITY CHECK	LATE	145	97	56	13	96	100	59	12	24
MATURITY CHECK	MED	166	111	54	11	103	107	59	12	22
MIDLAND	436VLG	176	117	57	11	--	--	--	--	--
MIDLAND	573PRW	139	92	60	12	--	--	--	--	--
MIDLAND	594PR DG	151	101	57	12	--	--	--	--	--
MIDLAND	653PR	152	101	59	12	--	--	--	--	--
MIDLAND	656PR	130	86	59	13	--	--	--	--	--
MIDLAND	714PRW	118	78	59	14	--	--	--	--	--
MIDLAND	735PRW	129	86	57	14	--	--	--	--	--
MIDLAND	775PR DG	160	107	58	11	--	--	--	--	--
NUTECH/G2 GENETICS	5F-113	155	104	61	13	87	90	60	12	23
NUTECH/G2 GENETICS	5F-709	169	113	58	12	108	112	60	11	20
NUTECH/G2 GENETICS	5F-811	163	109	61	13	78	81	59	11	23
NUTECH/G2 GENETICS	5F-814	159	106	58	14	103	108	59	11	23
PHILLIPS	PSF003	160	107	57	11	92	96	58	11	20
PHILLIPS	PSF082 VT3Pro	170	114	58	12	87	91	59	12	22
PHILLIPS	PSF133DGV2Pro	117	78	58	13	103	108	60	11	23
PHILLIPS	PSF143 VT2Pro	129	86	59	11	96	100	60	12	23
PHOENIX	5552A4	120	80	57	12	89	92	59	12	23
PHOENIX	5785GT	157	105	56	13	123	128	60	12	23
PHOENIX	5942A4	153	102	57	12	82	85	59	11	28
PHOENIX	6012VZ	157	105	57	12	89	93	60	12	24
PHOENIX	6322A4	166	111	57	12	104	109	61	12	22
PHOENIX	6390A4	159	106	58	12	94	98	59	11	24
PHOENIX	6522A4	124	83	56	12	102	106	59	12	23
PHOENIX	6523A4	89	60	57	13	99	103	60	12	26
PHOENIX	6542A4	148	99	57	12	106	110	59	12	23
PRODUCERS	6318 STXRIB	--	--	--	--	102	106	59	12	22
PRODUCERS	7068 STXRIB	--	--	--	--	102	106	60	12	29
PRODUCERS	7224 VT3PRIB	--	--	--	--	103	107	59	12	23
PRODUCERS	7268 STXRIB	--	--	--	--	89	93	60	12	22
	AVERAGE	150	100	58	12	96	100	59	12	23
	CV (%)	9	9	1	8	11	11	3	6	0
	LSD (0.05)	23	15	1	2	14	15	2	1	0

*Seed treatment and hybrid traits located in Table 10.

**Yields in bold in the top LSD group.

***Unless two hybrids differ by more than the LSD, little confidence can be placed in one being superior to the other.

SOUTHEAST KANSAS SHORT-SEASON DRYLAND CORN TESTS

East Central Kansas Experiment Field, Ottawa; Eric Adee, agronomist; Jim Kimball, technician

Woodson silt loam; soybean in 2014

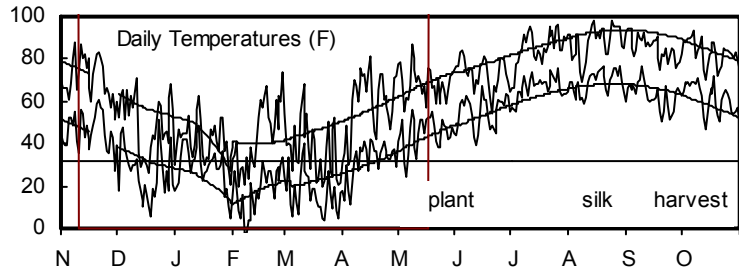
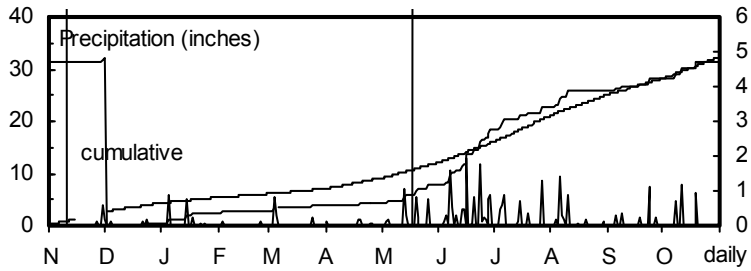
120 - 40 - 13 lb/a N, P, K

Planted on 4/17/2015; Harvested on 10/9/2015

Target stand of 23,000 plants/acre; 9.1 in. spacing

Wet spring followed by timely rains during the summer.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	4.8	7.7	38	39	423	319
April	3.5	2.7	56	56	260	260
May	10.7	3.9	64	65	428	449
June	4.4	4.6	77	74	721	667
July	3.3	3.7	79	80	765	778
August	2.3	3.0	74	79	670	756
Sep.-Oct.	3.5	5.1	65	68	965	591
Totals:	32.4	30.8	55	56	4,230	3,820



Four-State Farm Show, Parsons; Lonnie Mengarelli, research technician

Parsons silt loam; soybean in 2014

150 - 20 - 15 lb/a N, P, K

Planted on 4/27/2015; Harvested on 9/14/2015

Target stand of 22,000 plants/acre; 9.5 in. spacing

Extremely dry early on and then turn extremely wet; timely summer rains and mostly mild temperatures. Southern rust during fill period.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	4.7	11.9	41	42	430	348
April	4.5	3.4	59	57	294	265
May	10.1	4.6	65	65	450	448
June	3.8	4.5	78	74	742	665
July	5.5	3.3	81	80	814	780
August	4.5	3.6	75	79	699	765
Sep.-Oct.	4.3	6.2	66	68	1010	608
Totals:	37.4	37.5	57	57	4,438	3,878

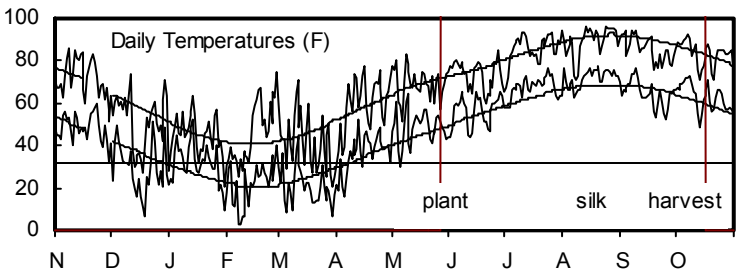
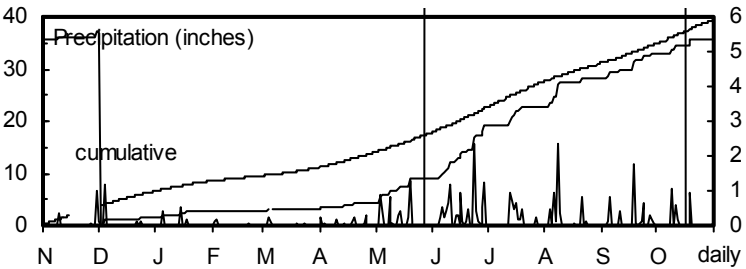


TABLE 6. KANSAS SHORT-SEASON DRYLAND CORN PERFORMANCE TEST, 2015

BRAND	NAME	OTTAWA, Franklin County					PARSONS, Labette County					1000 ppa
		YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	DAYS (silk)	YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	DAYS (silk)	
DEKALB	DKC51-20	135	104	56	15	79	162	99	57	13	63	23
DEKALB	DKC60-67	122	94	56	17	80	168	103	59	14	63	22
MATURITY CHECK	EARLY	136	105	57	16	80	180	110	64	13	63	23
MATURITY CHECK	MED	153	118	56	20	82	170	104	58	13	63	22
MFA	MORCORN MC3022	121	93	58	14	77	153	94	57	13	60	23
MFA	MORCORN MC3544	130	100	57	16	78	183	112	58	13	62	23
MFA	MORCORN MCXP-1501	143	110	57	16	79	186	113	58	13	62	23
MFA	MORCORN MCXP-1502	131	101	58	16	79	157	96	57	14	63	22
MFA	MORCORN MCXP-1503	126	97	59	16	80	158	96	58	14	63	22
MFA	MORCORN MCXP-1507	117	90	58	15	80	146	89	57	13	60	22
MFA	MORCORN MCXP-1511	118	91	59	15	78	145	88	58	13	59	22
MFA	MORCORN MCXP-1512	129	99	59	15	78	163	99	58	13	62	23
MIDLAND	126PRW	133	102	57	15	77	170	103	57	13	61	23
MIDLAND	134SS	133	102	58	15	79	164	100	57	13	61	23
NUTECH/G2 GENETICS	5F-200	134	103	58	15	77	162	99	58	14	61	22
NUTECH/G2 GENETICS	5F-701	129	99	58	15	77	165	100	58	13	58	24
NUTECH/G2 GENETICS	5H-502	125	96	59	16	79	166	101	58	14	62	22
NUTECH/G2 GENETICS	5X-905	126	97	57	17	79	154	94	56	13	58	21
	AVERAGE	130	100	58	16	79	164	100	58	13	61	22
	CV (%)	8	8	1	3	1	6	6	5	2	1	0
	LSD (0.05)	15	12	1	1	2	14	9	4	0	1	2

*Seed treatment and hybrid traits located in Table 10.

**Yields in bold in the top LSD group.

***Unless two hybrids differ by more than the LSD, little confidence can be placed in one being superior to the other.

SOUTH CENTRAL KANSAS IRRIGATED CORN TESTS

Mark Vogts Farm, Moundridge; Mark and Aaron Vogts, cooperators; Jane Lingenfelter, agronomist

Crete silt loam; grain sorghum in 2014

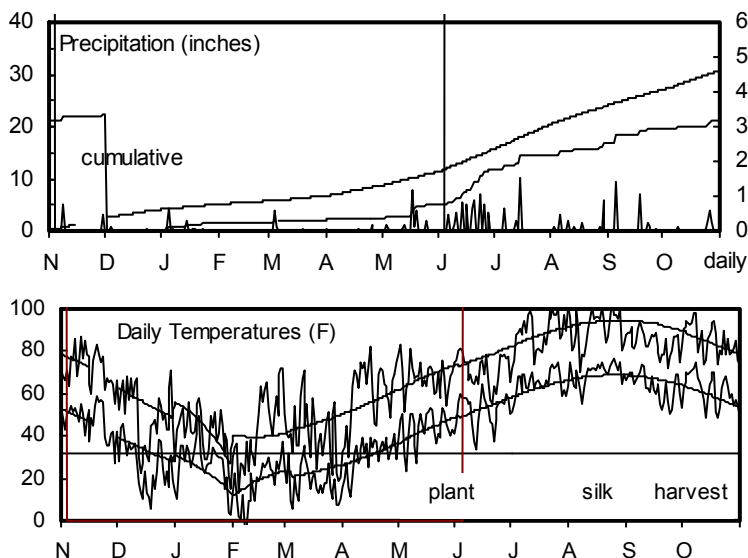
200 - 50 - 0 lb/a N, P, K

Planted on 5/5/2015; Harvested on 10/3/2015

Target stand of 30,000 plants/acre; 7.0 in. spacing

Frequent rains throughout growing season; sprayed for gray leaf spot in July.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	2.5	7.5	38	39	454	317
April	2.7	2.4	55	56	241	253
May	6.8	4.1	62	65	365	445
June	2.6	4.4	78	75	714	677
July	2.3	3.4	80	81	781	787
August	2.9	2.9	73	80	662	767
Sep.-Oct.	2.7	4.7	66	68	999	607
Totals:	22.5	29.3	55	56	4,215	3,854



Justin Vosburgh Farms, Macksville; Justin Vosburgh, cooperator; Jane Lingenfelter, agronomist

Carwile fine sandy loam; soybean in 2014

235 - 40 - 0 lb/a N, P, K

Planted on 4/30/2015; Harvested on 9/24/2015

Target stand of 30,000 plants/acre; 7.0 in. spacing

Stands were affected by heavy rains before and right after planting.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	2.2	6.0	40	41	490	350
April	5.7	1.8	56	56	265	282
May	6.7	3.2	62	66	374	464
June	1.9	3.4	78	76	709	678
July	3.4	2.7	81	79	769	772
August	1.7	2.3	76	78	708	715
Sep.-Oct.	2.3	3.4	67	66	1030	545
Totals:	23.8	22.9	56	57	4,344	3,806

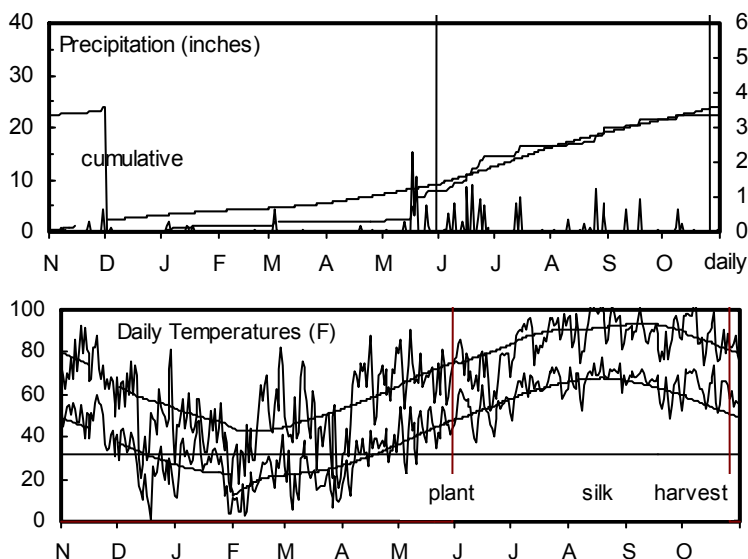


TABLE 7. SOUTH CENTRAL KANSAS IRRIGATED CORN PERFORMANCE TEST, 2015

BRAND	NAME	MOUNDRIDGE, McPherson County					MACKSVILLE, Stafford County				
		YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	1000 ppa	YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	1000 ppa
AGRIGOLD	A6488VT2RIB	200	103	61	15	28	215	110	62	13	28
AGRIGOLD	A6499STXRIB	217	112	62	15	28	204	105	63	14	27
AGRIGOLD	A6517VT3PRIB	196	101	60	16	28	--	--	--	--	--
AGRIGOLD	A6579STX	171	88	61	15	28	184	94	62	13	30
AGRIGOLD	A6619VT2RIBD1	--	--	--	--	--	203	104	61	15	31
B-H GENETICS	BH 8550SS	--	--	--	--	--	223	114	63	13	35
B-H GENETICS	BH 8688DG2P	--	--	--	--	--	246	126	60	15	31
B-H GENETICS	BH 8700SS	--	--	--	--	--	182	94	62	15	35
B-H GENETICS	BH 8732VTTP	--	--	--	--	--	209	107	61	15	28
B-H GENETICS	XP 7646VT2PRIB	--	--	--	--	--	191	98	61	12	29
DEKALB	DKC51-20	198	102	60	14	30	126	64	58	12	34
DEKALB	DKC60-67	189	97	60	15	24	196	100	63	13	30
DEKALB	DKC64-89	215	110	59	17	24	216	111	62	13	35
GOLDEN ACRES	G4598	172	88	61	16	26	209	107	62	13	30
GOLDEN ACRES	G4655A	213	110	59	17	35	229	118	59	15	29
GOLDEN ACRES	G4678DG	207	106	59	16	30	223	115	61	15	30
GOLDEN ACRES	G5621	203	104	60	15	28	219	112	63	14	29
GOLDEN ACRES	G6611	181	93	59	17	28	219	112	61	15	25
GOLDEN ACRES	G7601	197	101	60	16	30	248	127	61	16	29
GOLDEN ACRES	G7688	175	90	60	16	28	193	99	63	16	31
GOLDEN ACRES	GA26V21	205	105	60	16	28	198	101	61	15	28
GOLDEN ACRES	GA27V01	213	109	60	16	24	214	110	60	14	31
LG SEEDS	LG2602VT3PRIB	206	106	59	17	34	--	--	--	--	--
LG SEEDS	LG2636VT3PRIB	--	--	--	--	--	152	78	61	14	31
LG SEEDS	LG5607VT2RIB	--	--	--	--	--	201	103	61	13	32
LG SEEDS	LG5618STXRIB	189	97	60	15	30	191	98	62	14	30
LG SEEDS	LG5622STXRIB	--	--	--	--	--	188	96	62	15	34
LG SEEDS	LG5638VT2Pro	191	98	60	15	28	199	102	62	13	32
LG SEEDS	LG5677VT2PRIB	178	91	60	16	28	194	99	60	13	29
MATURITY CHECK	EARLY	200	103	61	15	28	178	91	61	13	32
MATURITY CHECK	LATE	202	104	60	15	31	195	100	63	16	36
MATURITY CHECK	MED	177	91	60	16	28	190	98	62	15	34
MIDLAND	594PR DG	188	97	60	15	30	--	--	--	--	--
MIDLAND	622PR	191	98	60	16	28	--	--	--	--	--
MIDLAND	624PRW	182	94	59	16	28	--	--	--	--	--
MIDLAND	775PR DG	218	112	60	16	28	--	--	--	--	--
NUTECH/G2 GENETICS	5F-510	217	112	61	15	33	213	109	63	14	32
NUTECH/G2 GENETICS	5F-515	204	105	60	15	28	237	122	62	15	29
NUTECH/G2 GENETICS	5F-709	198	102	62	15	28	178	91	61	14	29
NUTECH/G2 GENETICS	5F-713	197	101	60	16	26	214	110	62	14	29
NUTECH/G2 GENETICS	5Z-015	171	88	60	16	28	199	102	63	14	25
NUTECH/G2 GENETICS	5Z-308	183	94	61	16	29	203	104	63	14	30
PHILLIPS	PSF003	181	93	60	15	30	143	73	60	12	34
PHILLIPS	PSF082	190	98	60	16	28	146	75	60	12	31
PHILLIPS	PSF133	190	98	61	16	28	191	98	60	15	36
PHILLIPS	PSF143 VT2Pro	208	107	60	15	28	171	88	63	14	29
PHILLIPS	PSF172	204	105	59	17	30	181	93	63	14	26
PHOENIX	5552A4	190	98	60	14	28	191	98	60	14	28
PHOENIX	5785GT	182	94	60	16	28	157	80	60	13	35
PHOENIX	5942A4	201	103	57	16	29	184	95	61	13	35
PHOENIX	6012VZ	194	100	60	15	24	176	90	61	13	34
PHOENIX	6322A4	211	109	61	15	28	167	85	60	13	29
PHOENIX	6390A4	162	83	60	15	28	188	97	61	13	31
PHOENIX	6522A4	180	93	60	15	28	173	89	61	14	27
PHOENIX	6523A4	196	101	62	15	28	209	107	59	16	31
PHOENIX	6542A4	208	107	58	17	26	184	94	60	14	30
PRODUCERS	7213 VT2PRIB	--	--	--	--	--	218	112	62	14	31
PRODUCERS	7224 VT3PRIB	--	--	--	--	--	194	100	60	14	35

TABLE 7 continued. SOUTH CENTRAL KANSAS IRRIGATED CORN PERFORMANCE TEST, 2015

BRAND	NAME	MOUNDRIDGE, McPherson County					MACKSVILLE, Stafford County				
		YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	1000 ppa	YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	1000 ppa
PRODUCERS	7268 STXRIB	--	--	--	--	--	184	94	63	14	24
	AVERAGE	195	100	60	16	29	195	100	61	14	26
	CV (%)	10	10	2	8	0	9	9	1	4	0
	LSD (0.05)	28	15	2	2	0	25	13	1	1	0

Hutchinson, Reno County results not available at time of print. Please visit www.agronomy.k-state.edu/services/crop-performance-tests/corn

*Seed treatment and hybrid traits located in Table 10.

**Yields in bold in the top LSD group.

***Unless two hybrids differ by more than the LSD, little confidence can be placed in one being superior to the other.

WESTERN KANSAS DRYLAND CORN TESTS

Agricultural Research Center, Hays; Gerald Rohleder, technician

Harney clay loam; wheat in 2014

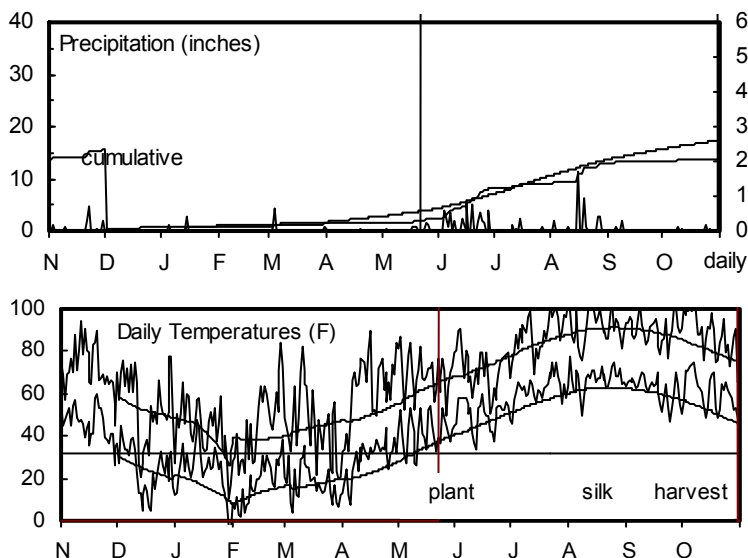
100 - 0 - 0 lb/a N, P, K

Planted on 4/22/2015; Harvested on 9/28/2015

Target stand of 17,000 plants/acre; 12.3 in. spacing

Wetter than normal spring supported the crop through silking; weather was dry after that.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	1.5	3.3	39	34	492	206
April	0.8	1.3	54	49	257	175
May	6.0	2.7	61	59	346	327
June	0.6	3.2	77	70	669	553
July	4.0	2.9	79	76	746	701
August	0.4	1.9	76	74	683	669
Sep.-Oct.	2.1	1.6	67	65	990	462
Totals:	15.5	17.0	56	50	4,183	3,093



Southwest Research-Extension Center, Garden City; Pat Evans, agronomist; Monty Spangler, technician

Keith silt loam; wheat in 2014

100 - 0 - 0 lb/a N, P, K

Planted on 5/13/2015; Harvested on 10/16/2015

Target stand of 17,000 plants/acre; 12.3 in. spacing

Wet, late spring. Wetter than normal summer with temperatures in the 90's with uncharacteristic lack of wind and high humidity.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	1.4	3.6	40	36	483	255
April	0.4	1.5	54	50	262	200
May	6.3	2.7	60	61	324	362
June	1.4	2.8	77	72	675	594
July	4.9	2.3	78	78	721	719
August	2.9	2.1	75	76	675	699
Sep.-Oct.	2.6	2.1	66	64	943	508
Totals:	19.7	17.1	55	53	4,082	3,337

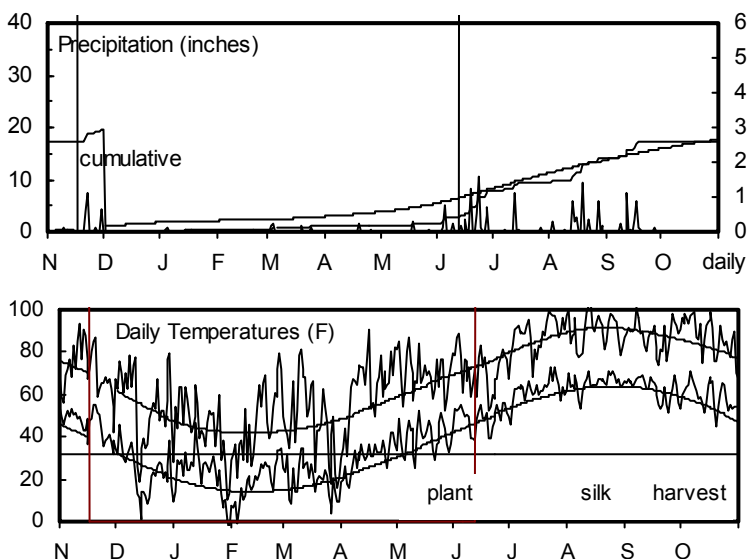


TABLE 8. WESTERN KANSAS DRYLAND CORN PERFORMANCE TEST, 2015

BRAND	NAME	HAYS, Ellis County						GARDEN CITY, Finney County					
		YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	HEIGHT (in)	1000 ppa	YIELD (bu/a)	PAVG (%)	TW (lb/bu)	MOIST (%)	DAYS (silk)	1000 ppa
DEKALB	DKC51-20	109	89	59	13	70	25	114	128	58	11	73	21
DEKALB	DKC60-67	115	94	61	12	71	22	49	54	59	11	74	21
DEKALB	DKC64-89	121	100	61	13	73	24	63	70	58	10	78	23
GOLDEN ACRES	C4173A	119	97	60	12	81	24	149	166	58	11	75	23
GOLDEN ACRES	G4655A	143	117	58	12	80	27	118	132	54	12	79	21
GOLDEN ACRES	G4678DG	105	86	57	13	74	23	125	140	57	12	76	23
GOLDEN ACRES	GA07698	107	88	60	13	72	24	75	84	57	10	76	23
MATURITY CHECK	EARLY	145	119	60	13	79	23	49	55	53	9	75	21
MATURITY CHECK	LATE	106	87	62	13	75	26	81	91	57	12	81	21
MATURITY CHECK	MED	117	96	63	13	77	24	34	38	58	12	77	23
MIDLAND	436VLG	107	88	62	13	74	24	--	--	--	--	--	--
MIDLAND	594PR DG	125	102	61	12	76	25	109	122	57	12	78	23
MIDLAND	775PR DG	--	--	--	--	--	--	105	118	57	11	77	23
PHILLIPS	PSF003 VT2Pro	103	84	61	12	68	25	--	--	--	--	--	--
PHILLIPS	PSF082 VT3Pro	139	114	60	12	73	23	55	62	56	10	77	23
PHILLIPS	PSF133DGV2Pro	132	108	61	14	74	23	64	71	55	9	75	20
PHILLIPS	PSF143	143	117	62	12	69	23	104	116	58	10	71	23
PHOENIX	5552A4	121	99	61	13	79	25	136	152	56	12	77	22
PHOENIX	5942A4	102	84	59	13	73	27	--	--	--	--	--	--
PHOENIX	6012VZ	179	147	59	14	79	27	--	--	--	--	--	--
PHOENIX	6322A4	102	84	60	13	77	26	--	--	--	--	--	--
PHOENIX	6390A4	101	83	61	14	82	26	--	--	--	--	--	--
PHOENIX	6522A4	108	89	60	12	75	25	--	--	--	--	--	--
PHOENIX	6523A4	120	99	58	12	79	26	--	--	--	--	--	--
PHOENIX	6542A4	161	132	60	12	79	25	--	--	--	--	--	--
	AVERAGE	122	100	60	13	75	25	89	100	57	11	76	22
	CV (%)	6	6	3	--	4	0	11	11	2	--	5	0
	LSD (0.05)	10	9	3	2	4	4	14	15	2	2	6	3

Colby, Thomas County abandoned; extreme variability.

* Seed treatment and hybrid traits located in Table 10.

** Yields in bold in the top LSD group.

*** Unless two hybrids differ by more than the LSD, little confidence can be placed in one being superior to the other.

WESTERN KANSAS IRRIGATED CORN TESTS

Northwest Research-Extension Center, Colby; Patrick Evans, agronomist

Keith silt loam; sunflower in 2014

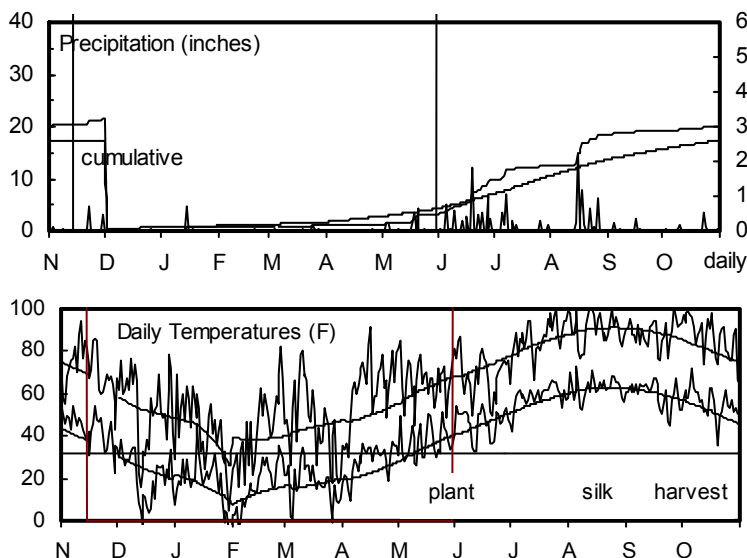
230 - 55 - 0 lb/a N, P, K

Planted on 4/30/2015; Harvested on 10/13/2015

Target stand of 30,000 plants/acre; 7.0 in. spacing

Small hailstorm in July caused some stripping of leaves.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	1.4	3.3	38	34	470	206
April	2.1	1.3	51	49	216	175
May	6.5	2.7	57	59	275	327
June	2.7	3.2	74	70	618	553
July	6.0	2.9	77	76	691	701
August	0.7	1.9	74	74	644	669
Sep.-Oct.	2.3	1.7	64	62	882	462
Totals:	21.6	17.2	53	51	3,796	3,093



Southwest Research-Extension Center, Tribune; Alan Schlegel, agronomist

Ulysses silt loam; sunflower in 2014

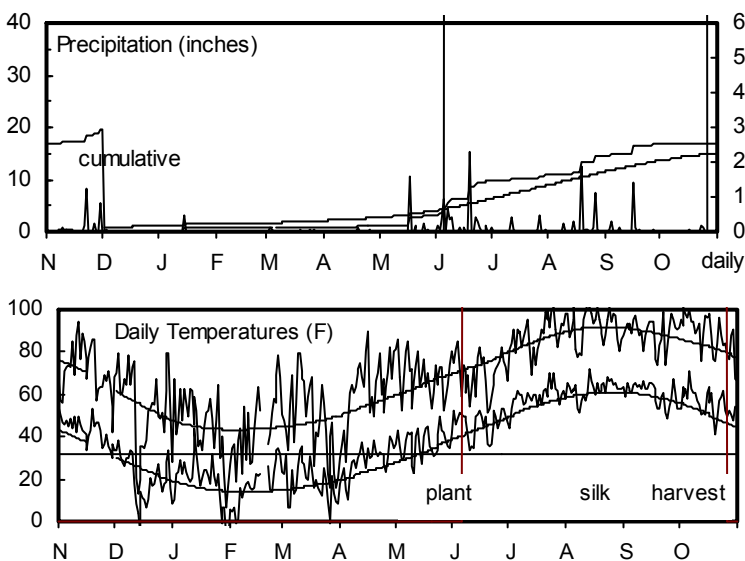
240 - 40 - 0 lb/a N, P, K

Planted on 5/6/2015; Harvested on 9/24/2015

Target stand of 30,000 plants/acre; 7.0 in. spacing

May was wetter than normal. No disease or pests. Irrigation totaled 15.0 inches.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	1.4	2.8	39	36	460	261
April	2.1	1.2	52	49	245	207
May	6.3	2.2	58	59	289	356
June	1.0	2.4	74	70	618	544
July	3.8	2.4	77	76	685	674
August	2.1	2.1	75	74	648	653
Sep.-Oct.	2.9	1.6	65	63	892	483
Totals:	19.6	14.7	54	52	3,837	3,177



Southwest Research-Extension Center, Garden City; Patrick Evans, agronomist; Monty Spangler, technician

Keith silt loam; wheat in 2014

200 - 0 - 0 lb/a N, P, K

Planted on 5/13/2015; Harvested on 10/16/2015

Target stand of 30,000 plants/acre; 7.0 in. spacing

Wet, late spring. Wetter than normal summer with temperatures in the 90's with uncharacteristic lack of wind and high humidity. Irrigated 11.23 inches.

Month	Precipitation		Average Temp.		GDU	
	2015	Norm.	2015	Norm.	2015	Norm.
Nov.-Mar.	1.4	3.6	40	36	483	255
April	0.4	1.5	54	50	262	200
May	6.3	2.7	60	61	324	362
June	1.4	2.8	77	72	675	594
July	4.9	2.3	78	78	721	719
August	2.9	2.1	75	76	675	699
Sep.-Oct.	2.6	2.1	66	64	943	508
Totals:	19.7	17.1	55	53	4,082	3,337

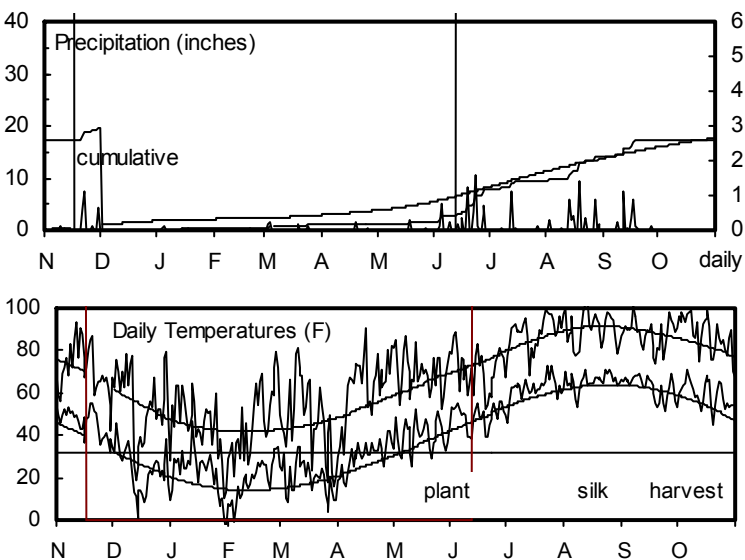


Table 10. Entries in the 2015 Kansas Corn Performance Tests*

	SD	TRT*	GDD	DBL	RES	P	F		SD	TRT	GDD	DBL	RES	P	F
AGRIGOLD								LG SEEDS							
A6553VT2RIB	--	--	2765	RR/CB/RW	--	Y		LG2602VT3PRIB	P500/Vot	112	2700	VT3PRO	--	Y	
A6488VT2RIB	Acc/Vot	111	2790	VT2PRO	Y	Y		LG5618STXRIB	P500/Vot	112	2720	STXRIB	--	Y	
A6499STXRIB	Acc/Vot	112	2800	RR, LL	Y	Y		LG5607VT2RIB	P500/Vot	112	2795	VT3PRIB	--	Y	
A6517VT3PRIB	Acc/Vot	113	2765	RR	Y	Y		LG5622STXRIB	P500/Vot	113	2655	STX	N	N	
A6542VT2PRODG	Acc/Vot	113	2830	VT2PRODG	Y	Y		LG5612STXRIB	P500/VOT	113	2850	STX	Y	Y	
A6573VT2RIB	Acc/Vot	114	2793	RR	Y	Y		LG5630VT3PRIB	P500/Vot	114	2715	VT3PRO	--	Y	
A6619VT2RIBD1	Acc/Vot	114	2830	RR	Y	Y		LG2636VT3PRIB	P500/Vot	114	2750	VT3PRO	--	Y	
A6579STX	Acc/Vot	114	2850	STX	Y	Y		LG5638VT2PRIB	P500/Vot	114	2830	VT2Pro	Y	Y	
AGVENTURE								LG5663VT2PRIB	P500/Vot	115	2750	VT2PRIB	N	Y	
AV7307AM	V500	107	--	LL,RR,CB	N	Y		LG5677VT2PRIB	P500/Vot	115	2750	VT2PRIB	Y	Y	
RL7687YHB	V500	109	--	LL,RR,CB	N	Y		LG5701VT3PRIB	P500/Vot	116	2770	VT3PRIB	Y	Y	
RL7844YHB	V500	110	--	LL,RR,CB	N	Y		LG5717VT2PRIB	P500/Vot	117	2930	VT2Pro	Y	Y	
RL8767HB	V500	113	--	LL,RR,CB	N	Y		MATURITY CHECK							
AV8714AM	V500	114	--	LL,RR,CB	N	Y		EARLY	--	--	--	--	--	--	
RL8982YHB	V500	116	--	LL,RR,CB	N	Y		LATE	--	--	--	--	--	--	
B-H GENETICS								MED	--	--	--	--	--		
XP 7646VT2PRIB	P/V500	106	--	GENVT2P	--	--		MFA							
BH 8550SS	P/V500	114	--	SS	--	--		MCXP-1501	Acc	--	--	RR	--	--	
BH 8688DG2P	P/V500	115	--	DG2P	--	--		MCXP-1502	Acc	--	--	RR	--	--	
BH 8700SS	P/V500	115	--	SS	--	--		MCXP-1503	Acc	--	--	RR	--	--	
BH 8732VTTTP	P/V500	116	--	VTTTP	--	--		MCXP-1507	Acc	--	--	RR	--	--	
DEKALB								MCXP-1511	Acc	--	--	RR	--	--	
DKC51-20	--	--	--	--	--	--		MCXP-1512	Acc	--	--	RR	--	--	
DKC60-67	--	--	--	--	--	--		MC3022	Acc	100	--	RR	--	--	
DKC64-89	--	--	--	--	--	--		MC3544	Acc	105	--	RR	--	--	
GOLDEN ACRES								MC3966	Acc	109	--	RR	--	--	
GA26V21	Acc/V500	--	--	--	--	--		MC4354	Acc	113	--	RR	--	--	
GA07698	Acc/V500	107	2400	RR,CB,RW	N	N		MC4377	Acc	113	--	RR	--	--	
C4173A	C500	109	2450	RR,CB,RW	N	N		MIDLAND							
G4598	Acc/V500	113	2550	VT3P	N	Y		134SS	C250	101	2450	RR	Y	Y	
G4656A	C500	114	2600	VT3P	N	Y		126PRW	C250	103	2515	RR	Y	Y	
G4678DG	Acc/V500	114	2600	VT3P	N	Y		436VLG	C250	110	2710	RR,LL	Y	Y	
G5621	Acc/V500	115	2660	VT3P	N	Y		573PRW	C250	112	--	VT3Pro	Y	Y	
G6611	Acc/V500	116	2670	VT3P	N	Y		622PR	C250	113	--	VT3PR	Y	Y	
G7601	Acc/V500	117	2700	VT3P	N	Y		653PR	C250	113	--	VT3Pro	Y	Y	
G7688	Acc/V500	117	2700	RR,CB,RW	N	Y		656PR	C250	113	2595	RR	Y	Y	
GA27V01	Acc/V500	117	2700	RR,CB,RW	N	Y		594PR DG	C250	113	2840	RR	Y	Y	
GOLDEN HARVEST								624PRW	C250	114	--	VT3Pro	Y	Y	
G10S30-311	Avicta 500	110	2570	3111	Y	Y		775PR DG	C250	114	2770	RR	Y	Y	
G11U58-3111	Avicta 500	111	2580	LL,RR,CB,RW	Y	Y		714PRW	C250	115	--	VT3Pro	Y	Y	
G12L09-3010A	Avicta 500	112	2610	3010A	Y	Y		735PRW	C250	115	2860	RR	Y	Y	
G13N18-3111	Avicta 500	113	2630	3111	Y	Y		NUTECH/G2 GENETICS							
G14H66-3010A	Avicta 500	114	2660	GT	Y	SF		5F-113	--	--	--	--	--	--	
G16K01-3111	Avicta 500	116	2650	LL,RR,CB,RW	Y	Y		5F-510	--	--	--	--	--	--	
G14V04-3010	Avicta 500	116	2690	3111	Y	Y		5F-515	--	--	--	--	--	--	
								5F-701	--	--	--	--	--	--	

Table 10 continued. Entries in the 2015 Kansas Corn Performance Tests

	SD TRT*	GDD	DBL	RES	P	F	SD TRT	GDD	DBL	RES	P	F
NUTECH/G2 GENETICS												
5F-713	--	--	--	--	--	--						
5F-814	--	--	--	--	--	--						
5H-502	--	--	--	--	--	--						
5X-905	--	--	--	--	--	--						
5Z-015	--	--	--	--	--	--						
5Z-308	--	--	--	--	--	--						
5F-200	P/V	--	2460	C	N	N						
5F-709	P/V	--	2640	CB	N	N						
5F-811	MQ	--	2680	CB	N	Y						
PHILLIPS												
PSF003	Acc	100	2510	CB VT2PRO	--	--						
PSF082	Acc	108	2766	VT3P	--	Y						
PSF133	Acc	113	2867	RR, CB	--	--						
PSF143	Acc	114	2850	CB	--	--						
PSF172	Acc	117	2970	RR, CB, RW	--	--						
PHOENIX												
5552A4	--	--	--	--	--	--						
5785GT	--	--	--	--	--	--						
5808VR	--	--	--	--	--	--						
5942A4	--	--	--	--	--	--						
6012VZ	--	--	--	--	--	--						
6322A4	--	--	--	--	--	--						
6390A4	--	--	--	--	--	--						
6522A4	--	--	--	--	--	--						
6523A4	--	--	--	--	--	--						
6542A4	--	--	--	--	--	--						
6606A4	--	--	--	--	--	--						
8400A4	--	--	--	--	--	--						
PRODUCERS												
6318 STXRIB	--	--	--	--	--	--						
6878 STXRIB	--	--	--	--	--	--						
6968 STXRIB	--	--	--	--	--	--						
7068 STXRIB	--	--	--	--	--	--						
7358 STXRIB	--	--	--	--	--	--						
6108 STXRIB	Vot	101	2470	VT3PRIB	Y	N						
7268 STXRIB	Vot	112	2600	STXRIB	Y	Y						
7224 VT3PRIB	Vot	112	2610	VT3	Y	Y						
7213 VT2PRIB	Vot	112	2750	VT2RIB	Y	Y						
RENK												
RK810SSTX	Acc/Vot	109	2519	RR,LL,CB,RW	N	N						
RK871VT2P	Acc	111	2550	RR,CB	N	N						
RK941SSTX	Acc/Vot	114	2590	RR,LL,CB,RW	N	Y						
RK924DGVT2P	Acc	114	2625	DG,RR,CB	N	Y						
RK930VT3P	Acc	115	2700	RR,CB,RW	N	Y						

*SD TRT = Seed treatment (C=Cruiser, CE=Cruiser Extreme, Acc=Accelaron, P=Poncho, Vot=Votivo. Numbers indicate rates if available); GDD = growing degree days; DBL = days to black layer; RES = herbicide, disease, and insect resistance traits [(Bt, BtCB, CB, YG, YG1, YG+, YGCB), Hx = transgenic corn borer protection; BtRW, RW, YGRW, HxRW = transgenic rootworm protection; CL, I, IT, IMI = imidazolinone resistant/tolerant; LL = Liberty Link; RR = Roundup Ready; TS, T = Triple Stack (RRCBRW)]; P = prolific; F = flex ear. Values provided by entrants.

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

www.agronomy.k-state.edu/services/crop-performance-tests/index.html

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 1120, '2015 Kansas Performance Tests with Corn Hybrids,' or the Kansas Crop Performance Test website, www.agronomy.k-state.edu/services/crop-performance-tests/index.html, for details. Endorsement or recommendation by Kansas State University is not implied."

Contributors

Main Station, Manhattan

Jane Lingenfelter, Assistant Agronomist (Senior Author)
Doug Jardine, Extension Plant Pathologist
Mary Knapp, KSU Weather Data Librarian
Edward O. Quigley, Agricultural Technician
Holly Schwarting, Extension Entomologist
Brent Christenson, Agronomy

Experiment Fields

Eric Adee, Topeka
Gary Cramer, Hutchinson
Andrew Esser, Scandia
Jim Kimball, Ottawa
Keith Thompson, Hutchinson

Research Centers

Patrick Evans, Colby
Lonnie Mengarelli, Parsons
Gerald Rohleder, Hays
Alan Schlegel, Tribune
Monty Spangler, Garden City

Cooperators

D.J. Eidman, Strong City
Fuhrman Farms, Severance
Rezac Farms, Onaga
Clayton Short, Assaria
Mark and Aaron Vogts, Moundridge
Justin Vosburgh, Macksville

Copyright 2016 Kansas State University Agricultural Experiment Station and Cooperative Extension Service. Contents of this publication may be freely reproduced for educational purposes. All other rights reserved. In each case, give credit to the author(s), 2015 Kansas Performance Tests with Corn Hybrids, Kansas State University, January 2016. Contribution no. 16-022-S from the Kansas Agricultural Experiment Station.

Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

Publications from Kansas State University are available at:
www.ksre.ksu.edu

Kansas State University Agricultural Experiment Station and Cooperative Extension Service