

# 2017 SPRING SEED GUIDE

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University of Nebraska Variety  
Testing Program

- University of Nebraska–Lincoln Extension
- Institute of Agriculture and Natural Resources
- Department of Agronomy & Horticulture

## WELCOME TO THE 2017 SPRING SEED GUIDE

Corn and soybeans are included in this seed guide. Even if there are fewer entries than past years, entries from small regional companies continued to show outstanding performance where tested. This publication is one of two seed guides that will be available only in an electronic format. Individual sites plot data is available on the web at <http://cropwatch.unl.edu/varietytest>. It is our hope that you will find this guide useful in choosing hybrids for planting this spring. Please send any comments and suggestions to [tregassa2@unl.edu](mailto:tregassa2@unl.edu).

Please visit our web site at <http://cropwatch.unl.edu/varietytest> for all the information you need on variety testing.

Teshome Regassa

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# NEBRASKA VARIETY AND HYBRID TESTS

## SPRING SEED GUIDE – 2017

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## NEBRASKA CORN HYBRID TESTS

### CROP PRODUCTION SUMMARY

According to the National Agricultural Statistics Service, there were 9.5 million acres of corn harvested in Nebraska in 2016 producing approximately 1.75 billion bushels of grain. The total average corn yield for Nebraska in 2016 was a record 184 bushels per acre (bu/a). Total corn yields from the previous 10 years are reported below.

	<b>Average Nebraska Corn Yield (Last 10 Years)</b>										
<b>Year</b>	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Yield (bu/a)</b>	152	160	163	179	166	160	142	169	179	185	184

Source: NASS

Abundant rainfall across the state allowed for high yields in many rainfed locations across Nebraska. Severe weather played a big role in the growing season as some areas were hit hard by storms and forced to replant. Detailed information regarding crop progress and history can be obtained from the National Agricultural Statistics Service available online at <http://www.nass.usda.gov>.

### PROCEDURE

Eight corn performance tests were planted throughout southeastern and northeastern Nebraska in 2016. Corn trials are conducted to provide yield and other information about corn hybrids available to corn growers in Nebraska. A fee from seed companies covers a portion of the cost of each test. Entry was on a voluntary basis and hybrids were selected by seed producers. At many locations, widely grown hybrids were entered by the Agronomy/Horticulture Department or the cooperator.

Individual plots are two rows wide and range from 15 to 35 feet long. Each test location had the same number of seed planted for all hybrids. The plant population represents the average harvested plant density. Grain yields are expressed on a 15.5% moisture basis. Yields shown are averages of four or more replicated plots at each location. Plots were machine harvested and grain moisture determinations were made with an electronic moisture meter or moisture sensors on the combine.

Variations in soil fertility, moisture conditions, and other factors are found in each test area. This makes it impossible to measure yielding ability of hybrids with absolute accuracy. For this reason, small yield differences have little meaning. A statistical measure of differences required for significance is given in each table (LSD). These differences are computed at the 5% level of significance. At the 5% level, a difference of that magnitude would be expected once in twenty trials through chance alone. Most fields have some degree of spatial variability. We make every effort to remove the variability by blocking and using other experimental design methods. We also use statistical procedures to remove a portion of the spatial variability.

In these experiments, many hybrids statistically had the same grain production. Performances of hybrids vary with seasonal conditions. Great care should be used in interpreting the results of a single year test. Earlier maturing hybrids are favored in some seasons while later ones perform best in other years. In addition, some hybrids are able to withstand unfavorable weather conditions better than others which may do well under ideal growing conditions. Performance over a period of years should give a much better measure of adaptation whenever available. Harvest moisture, stalk strength, and resistance to insect and disease also are factors which must be considered in selecting hybrids.

Relative hybrid performance often varies with locations within zones. In zone analysis, the hybrid by location mean square was used to calculate the differences required for significance shown in the tables. Moisture at harvest is an important consideration in hybrid selection as it does affect time of harvest and drying costs although this year the grain was all quite dry at harvest.

## **RESULTS AT INDIVIDUAL LOCATIONS**

### **Southeast District:**

#### **Rainfed tests were planted in Butler, Gage and Otoe Counties.**

- The Butler County rainfed test was planted on May 19th and harvested on November 4th, with an average yield of 205 bu/a. There were 19 varieties entered in this rainfed test including one farmer entry: (A) Golden Harvest G14R38-300GT.
- The Gage County rainfed test was planted on May 13th and harvested on November 9th with an average yield of 157 bu/a. There were 23 varieties entered in this rainfed test including five farmer entries: (A) Dekalb 61-79 (B) Dekalb 66-59, (C) Pioneer P1197AMT, (D) Pioneer P1751AMT, and (E) Hoegemeyer 8469AM. Several varieties at this site had a high percentage of lodging, green snap, and dropped ears.
- The Otoe County rainfed test was planted on May 5th and harvested on October 19th with an average yield of 206 bu/a. There were 23 varieties entered in this rainfed test including five farmer entries: (A) Hoegemeyer 7900AM, (B) Hoegemeyer 8066AM, (C) Hoegemeyer 8294AM, (D) Hoegemeyer 8363AM, and (E) Hoegemeyer 8469AM.

#### **Irrigated tests were planted in Clay, Hamilton and York Counties**

- The Clay County irrigated test was planted on May 14th and harvested on October 31st with an average yield of 238 bu/a. There were 24 varieties entered in this rainfed test including five farmer entries: (A) Pioneer P08081AMXT, (B) Pioneer P1197AMT, (C) Pioneer P1311AM, (D) Pioneer P1690CHR and (E) Pioneer P9690AM. Several varieties at this site had some loss due to lodging, green snap, and dropped ears.

- The Hamilton County irrigated test was planted on May 14th and harvested on October 28th with an average yield of 239 bu/a. There were 24 varieties entered in this rainfed test including five farmer entries: (A) Pioneer P08081AMXT, (B) Pioneer P1197AMT, (C) Pioneer P1311AM, (D) Pioneer P1690CHR and (E) Pioneer P9690AM. Several varieties at this site had a high percentage of lodging, green snap, and dropped ears.
- The York County irrigated test was planted on May 6th and harvested on November 2nd with an average yield of 230 bu/a. There were 24 varieties entered in this rainfed test including five farmer entries: (A) Pioneer P08081AMXT, (B) Pioneer P1197AMT, (C) Pioneer P1311AM, (D) Pioneer P1690CHR and (E) Pioneer P9690AM. Several varieties at this site had a significant percentage of lodging, green snap, and dropped ears.

### **North/Northeast District:**

#### **Three tests were planted in Dixon County**

- The Dixon County irrigated test was planted on June 2nd and harvested on November 8th with an average yield of 239 bu/a. There were 10 varieties entered in this irrigated test including three farmer entries.
- The Dixon County rainfed test was planted on June 2nd and harvested on November 9th with an average yield of 226 bu/a. There were 10 varieties entered in this rainfed test including three farmer entries.

## **CULTURAL PRACTICES**

**Butler County:** Rainfed; Previous Crop: Soybean; No-till; Fertilizer: 130 lb/a NH<sub>3</sub>; 5 gal 9-18-9 in furrow; Herbicide: 1 qt/a TripleFlex, 1 qt/a Atrazine, 24 oz/a Roundup, 1 oz/a Sharpen at planting; Fungicide: 1.6 oz/a Baythroid.

**Clay County:** Irrigated; Previous Crop: Soybean; No-till; Fertilizer: 100 lb/a 11-52-0, 180 lb/a NH<sub>3</sub>, 5 gal/a 10-34-0; Herbicide: 2.5 qt/a Acuron.

**Dixon County (Irrigated):** Irrigated; Previous crop: Soybean; No-till; Fertilizer: 150 lb/a NH<sub>3</sub>; Herbicide: Pre= 1.33 pt/a Medal II, 29 oz/a Durango DMA; Post= 32 oz/a Durango DMA, 2 qt/100 gal soln Request.

**Dixon County (Rainfed):** Rainfed; Previous crop: Soybean; No-till; Fertilizer: 150 lb/a NH<sub>3</sub>; Herbicide: Pre= 6 oz/a Balance Flexx, 0.5 lb/a Atrazine; Post= 32 oz/a Durango DMA, 2 qt/100 gal soln Request.

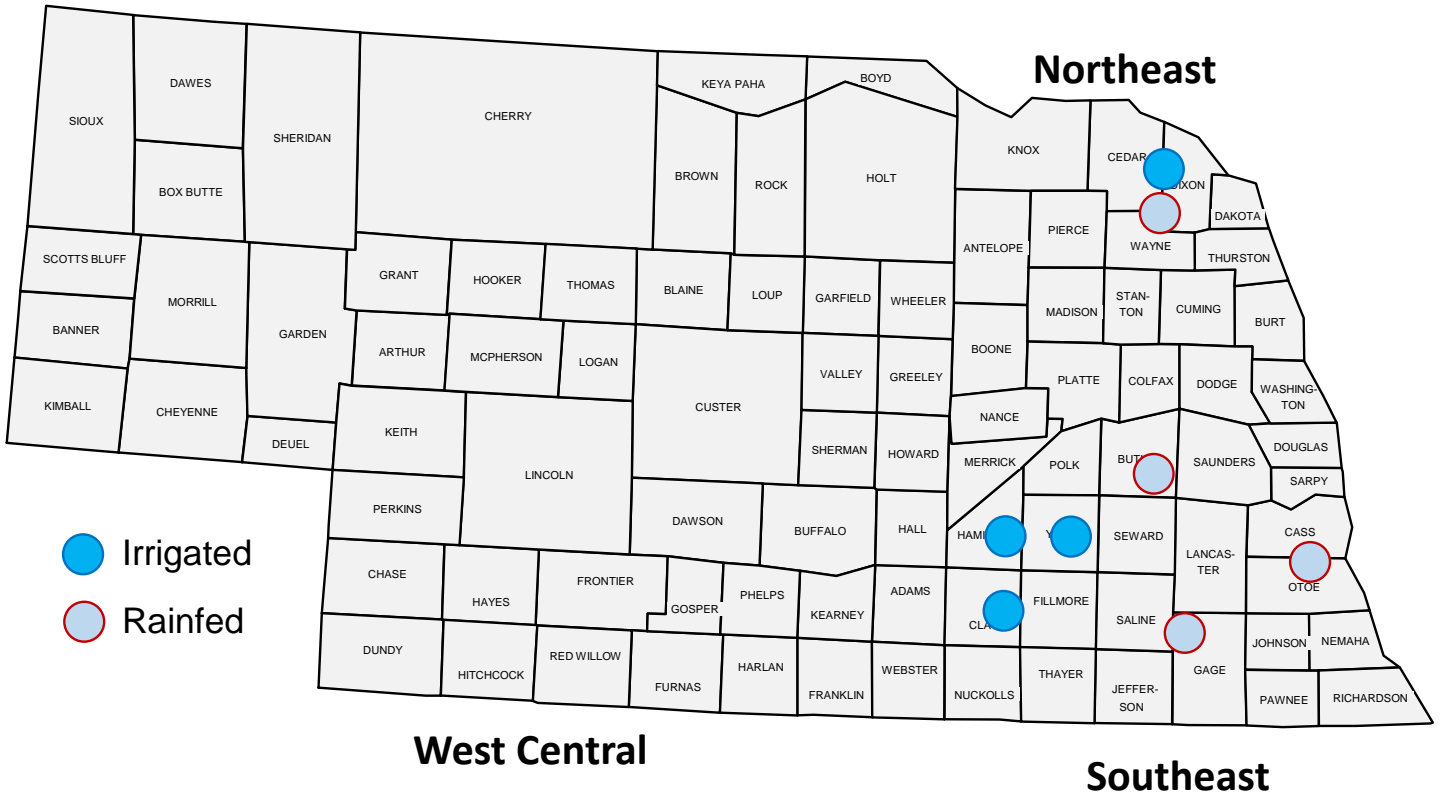
**Gage County:** Rainfed; Previous crop: Soybean; No-till; Fertilizer: 100 lb N, 40 lb P, 8 lb S, 0.5 lb Zn; Herbicide: Pre= 1.5 qt/a Lexar; Post= 1.5 qt/a Lexar.

**Hamilton County:** Pivot irrigated; Previous crop: Soybean; No-till; Fertilizer: Preplant= 125 lb/a N, 52 lb/a P, 100 lb/a K; at V7= 65 lb/a N; Herbicide: Post= 1.5 pt/a SureStart II; Fungicide: 5 oz/a Quilt.

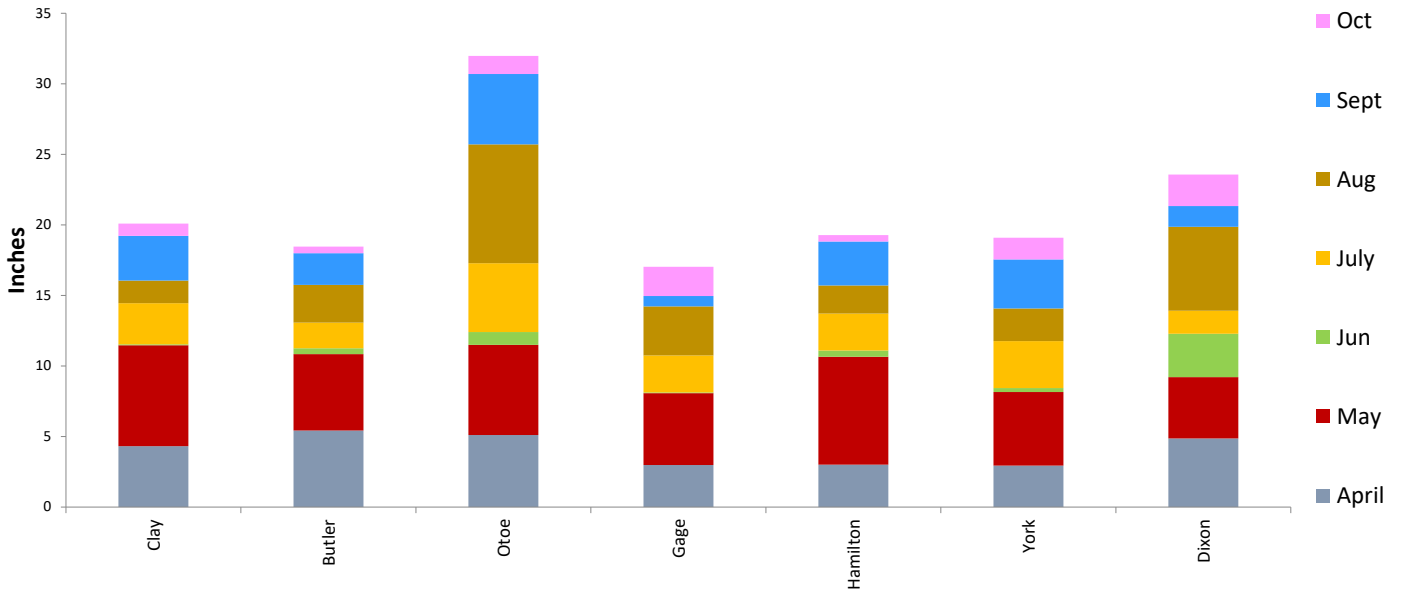
**Otoe County:** Rainfed; Previous Crop: Soybean; No-till; Fertilizer: 180 lb/a NH<sub>3</sub>; Herbicide: Pre= 2 pt/a Atrazine, 2.5 qt/a Acuron, 2 pt/a Roundup; Post= 2 oz/a Callisto, 1 pt/a Atrazine, 3 pt/a Roundup.

**York County:** Pivot irrigated; Previous Crop: Soybean; No-till; Fertilizer: 195 lb/a N as 32-0-0; Herbicide: Pre= 2 pt/a Staunch; Post= 2.6 pt/a Palace, 2.3 pt/a Buccaneer 5, Pro-One XL.

# 2016 CORN TRIAL SITE LOCATIONS



# 2016 CORN TRIAL SITE PRECIPITATION



**TABLE A. LOCATIONS, COOPERATORS, PLANTING AND HARVEST DATES OF NEBRASKA CORN TEST PLOTS**

Location	Cooperator	Conditdion	Planted	Harvested	Longitude	Latitude
<b>Southeast</b>						
Butler County	Jim Heins; Rising City, NE	Rainfed	5/19/2016	11/4/2016	-97.20795	41.18706
Otoe County	James Farms; Nebraska City, NE	Rainfed	5/5/2016	10/19/2016	-95.94085	40.77580
Gage County	Scott Kapke; Clatonia, NE	Rainfed	5/13/2016	11/9/2016	-96.87972	40.46524
Hamilton County	Mike Danhauer; Aurora, NE	Irrigated	5/14/2016	10/28/2016	-98.02145	40.95956
York County	Gary Schluckebier; Goehner, NE	Irrigated	5/6/2016	11/2/2016	-97.24371	40.87167
Clay County	UNL SCREC; Harvard, NE	Irrigated	5/14/2016	10/31/2016	-98.13535	40.57362
<b>North/Northeast</b>						
Dixon County	Haskell Ag Lab; Concord, NE	Irrigated	6/2/2016	11/8/2016	-96.95392	42.38564
Dixon County	Haskell Ag Lab; Concord, NE	Rainfed	6/2/2016	11/9/2016	-96.95528	42.37950



**TABLE B. SOIL AND CULTURAL PRACTICES AT  
CORN TRIAL SITES**

Location	Practice	Soil Series	Tillage	Previous Crop	Fertilizer (lb/a)	Herbicide	Other
<b>Southeast</b>							
Butler County	Rainfed	Hastings silt loam	No-till	Soybeans	130 lb/a anhydrous ammonia; 5 gal/a 9-18-9 in furrow	TripleFLEX (1 qt/a) + Atrazine (1 qt/a) + Roundup (24 oz/a) + Sharpen (1 oz/a) at planting	Baythroid (1.6 oz/a)
Otoe County	Rainfed	Aksarben silty clay loam	No-till	Soybeans	180 lb/a N as anhydrous ammonia	Pre: Atrazine (2 pt/a) + Acuron (2.5 qt/a) + Roundup (2 pt/a); Post: Callisto (2 oz/a) + Atrazine (1 pt/a) + Roundup (3 pt/a)	-
Gage County	Rainfed	Wymore silty clay loam	No-till	Soybeans	100 lb/a N, 40 lb/a P, 8 lb/a S, 0.5 lb/a Zn	Pre: 1.5 qt/a Lexar, Post: 1.5 qt/a Lexar	-
Hamilton County	Irrigated	Hastings silt loam	Strip	Soybeans	125 lb/a N, 52 lb/a P <sub>2</sub> O <sub>5</sub> , 100 lb/a K <sub>2</sub> O preplant & 65 lb/a N at V7	SureStart II (1.5 pt/a) as post-emergent	Quilt (5 oz/a)
Clay County	Irrigated	Crete silt loam	No-till	Soybeans	100 lb/a 11-52-0, 180 lb/a 82-0-0, 5 gal/a 10-34-0	Acuron (2.5 qt/a)	-
York County	Irrigated	Hastings silt loam	No-till	Soybeans	195 lb/a N as 32-0-0	Pre: Staunch (2 pt/a); Post: Palace (2.6 pt/a) + Buccaneer 5 (2.3 pt/a) + Pro-One XL"	-
<b>North/Northeast</b>							
Dixon County	Irrigated	Maskell loam	No-till	Soybeans	150 lb/a anhydrous ammonia	Medal II (1.33 pt/a) + Durango DMA (29.0 oz/a) in May; Durango DMA (32 oz/a) + Request (2 qt/100 gal) in June	-
Dixon County	Rainfed	Alcester silt loam	No-till	Soybeans	150 lb/a anhydrous ammonia	Balance Flexx (6.0 oz/a) + Atrazine (0.5 lb/a) in May; Durango DMA (32 oz/a) + Request (2 qt/100 gal) in June	-



## TABLE C. AVERAGE PERFORMANCE SUMMARY

Location	Condidtion	Entries	Yield LSD	Yield (bu/a, 15.5%)	Harvest Moisture (%)	Bushel Weight (lb/bu)	Stand	EPV (\$)
<b>Southeast</b>								
Butler County	Rainfed	18	14	205	14	58	22,030	1300
Otoe County	Rainfed	18	17	206	15	57	21,360	1303
Gage County	Rainfed	18	16	157	13	59	21,590	1006
Hamilton County	Irrigated	19	32	239	15	58	33,410	1490
York County	Irrigated	19	41	230	13	59	33,740	1448
Clay County	Irrigated	19	25	238	14	59	33,290	1486
<b>North/Northeast</b>								
Dixon County	Irrigated	7	20	239	19	57	33,150	1455
Dixon County	Rainfed	7	14	226	18	56	27,250	1388

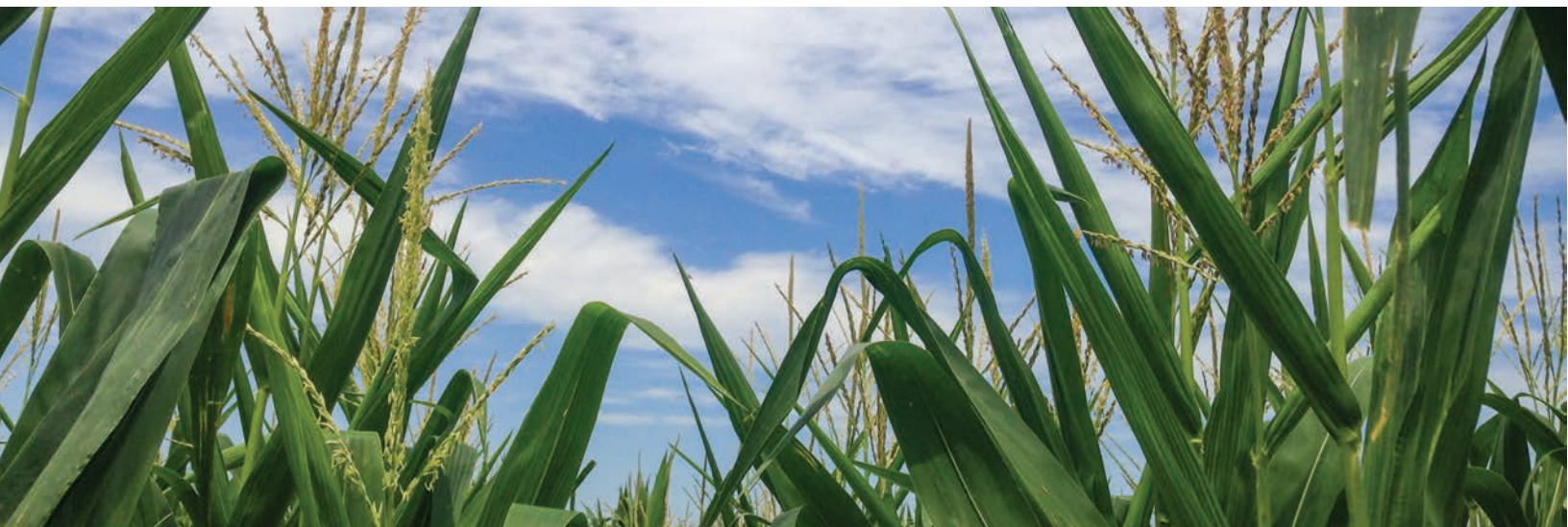


## TABLE D. CORN ENTRANT BRAND & HYBRIDS OVERVIEW - 2016

Brand	Hybrids Entered
<b>NNB - BLOWISH Tech</b>	DKC58-06RIB w/o BWT, DKC58-06RIB w/ BWT, DKC61-54RIB w/o BWT, DKC61-54RIB w/ BWT
<b>Midland Genetics</b>	347PR, 534PR, 594PR DG, 653PR, 656PR, 714PRW, 735 PR, 775PR DG
<b>Phillips Seeds</b>	PSF003, PSF082, PSF133, PSF143, 789 AG
<b>Titan Pro</b>	TP 55-11 2P, TP 56-06 3110, TP 56-14 2P, TP 59-08 SS, TP 66-10 2P, TP 68-14 SS

## TABLE E. NEBRASKA CORN TEST ENTRANTS

Entrant	Address	Contact	Phone	Website
Midland Genetics	1906 Kingman Road Ottawa, KS 66067	Clyde Sylvester	785-242-3598	midlandgenetics.com
Phillips Seed Farms	980 Hwy 15 Hope, KS 67451	Matt Wilber	785-844-2171	phillipsseed.com
Titan Pro	1301 S. 24th St Clear Lake, IA 50428	Marc Neuman	641-529-6101	titanprosci.com
BLOWISH Tech	2724 Erie Ave, Cincinnati, OH 45208	Mike Showell	312-572-6700	biowishtechologies.com



## TABLE F. CORN ENTRANT BRAND AND VARIETY DETAILS

Brand	Hybrid	Growing Degree Days	Days to Maturity	Technology/Trait	Herbicide Resistance	Other
Midland Genetics	347PR	2740	108	VT2Pro	Glyphosate	
Midland Genetics	534PR	2810	112	VT2Pro	Glyphosate	
Midland Genetics	594PR DG	2810	114	VT2Pro DroughtGard	Glyphosate	
Midland Genetics	653PR	2800	113	VT2Pro	Glyphosate	
Midland Genetics	656PR	2640	113	VT2Pro	Glyphosate	
Midland Genetics	714PRW	2825	115	VT3Pro	Glyphosate	
Midland Genetics	735PR	2850	115	VT2Pro	Glyphosate	
Midland Genetics	775PR DG	2770	114	VT2Pro DroughtGard	Glyphosate	
Phillips Seed Farms	789 AG	2680	113	Agrisure 3000 GT/LL/Cruiser	GT/LL	
Phillips Seed Farms	PSF 003	2510	100	Gen/VT2 Pro/Acceleron	RR2	
Phillips Seed Farms	PSF 082	2766	108	Gen/VT2 Pro/Acceleron	RR2	
Phillips Seed Farms	PSF 133	2867	113	Gen DG/VT2 Pro/Acceleron	RR2	DroughtGard
Phillips Seed Farms	PSF 143	2800	114	Gen/VT2 Pro/Acceleron	RR2	
Titan Pro	TP 55-11 2P		111	Genuity VT2Pro/Acceleron 250	RR2	RIB
Titan Pro	TP 56-06 3110		106	Agrisure Viptera 3110/CM 250	GT/LL	
Titan Pro	TP 56-14 2P		114	Genuity VT2Pro/Acceleron 250	RR2	RIB
Titan Pro	TP 59-08 SS		108	Genuity Smartstax/Acceleron PV500	RR2/LL	RIB
Titan Pro	TP 66-10 2P		110	Genuity VT2Pro/Acceleron 250	RR2	RIB
Titan Pro	TP 68-14 SS		114	Genuity Smartstax/Acceleron PV500	RR2/LL	RIB
NNB	DKC58-06RIB woBWT		108	GENSSRIB	RR2/LL	RIB
NNB	DKC58-06RIB wBWT		108	GENSSRIB	RR2/LL	RIB
NNB	DKC61-54RIB woBWT		111	GENSSRIB	RR2/LL	RIB
NNB	DKC61-54RIB wBWT		111	GENSSRIB	RR2/LL	RIB

## SOUTHEAST RAINFED CORN HYBRID TESTS

### Butler, Otoe, and Gage Counties - 2016

BRAND	HYBRID	Average Yield (bu/a)	Butler (bu/a)	Otoe (bu/a)	Gage (bu/a)	Harvest Moisture (%)	Bushel Weight (lb/bu)
Phillips Seed Farms	PSF133	214	225	230	186	14	57
Titan Pro	TP 68-14 SS	205	219	218	177	14	59
Midland Genetics	656PR	201	223	225	156	15	59
Midland Genetics	594PR DG	200	209	207	183	14	56
Phillips Seed Farms	789 AG	198	218	209	166	14	57
Titan Pro	TP 66-10 2P	194	205	208	169	14	56
NNB	DKC 61-54 wBWT	193	205	205	170	14	59
Titan Pro	TP 56-14 2P	192	202	209	165	14	59
NNB	DKC 61-54 woBWT	191	194	211	169	14	59
Titan Pro	TP 55-11 2P	188	194	209	160	14	57
NNB	DKC 58-06 wBWT	186	199	200	158	14	59
Phillips Seed Farms	PSF082	184	200	194	157	13	57
Midland Genetics	775PR DG	184	200	187	164	14	59
Midland Genetics	347PR	179	189	195	153	14	57
NNB	DKC 58-06 woBWT	178	194	192	148	14	58
Midland Genetics	653PR	177	218	221	93	15	59
Phillips Seed Farms	PSF003	172	182	177	158	13	57
Phillips Seed Farms	PSF143	171	218	211	85	15	59
<b>Average</b>		<b>189</b>	<b>205</b>	<b>206</b>	<b>157</b>	<b>14</b>	<b>58</b>
<b>Difference required for significance (p≤05)</b>		<b>29</b>	<b>14</b>	<b>17</b>	<b>16</b>	<b>1</b>	<b>1</b>



## SOUTHEAST IRRIGATED CORN HYBRID TESTS York, Hamilton and Clay Counties - 2016

BRAND	HYBRID	Average Yield (bu/a)	York (bu/a)	Hamilton (bu/a)	Clay (bu/a)	Harvest Moisture (%)	Bushel Weight (lb/bu)
Phillips Seed Farms	PSF133	268	265	269	270	14	57
Titan Pro	TP 68-14 SS	268	272	265	267	15	60
Midland Genetics	594PR DG	257	263	258	249	15	57
Midland Genetics	735PR	254	261	249	252	16	57
Titan Pro	TP 56-14 2P	249	237	263	248	15	58
Midland Genetics	714PRW	247	241	239	262	15	57
NNB	DKC 61-54 woBWT	247	247	254	241	14	60
Midland Genetics	775PR DG	246	230	266	241	14	58
Phillips Seed Farms	789 AG	236	238	239	232	14	58
Titan Pro	TP 66-10 2P	235	220	244	242	14	57
NNB	DKC 61-54 wBWT	234	230	240	231	14	60
Midland Genetics	534PR	231	239	211	243	14	59
NNB	DKC 58-06 woBWT	228	212	230	241	14	59
Phillips Seed Farms	PSF082	223	226	225	219	14	58
NNB	DKC 58-06 wBWT	223	211	237	222	14	59
Titan Pro	TP 55-11 2P	221	225	226	212	14	58
Midland Genetics	656PR	210	195	210	225	15	60
Phillips Seed Farms	PSF003	200	159	228	213	13	58
Phillips Seed Farms	PSF143	199	197	184	215	15	60
<b>Average</b>		<b>236</b>	<b>230</b>	<b>239</b>	<b>238</b>	<b>14</b>	<b>58</b>
<b>Diff required for significance (p≤05)</b>		<b>22</b>	<b>41</b>	<b>32</b>	<b>25</b>	<b>1</b>	<b>1</b>



# SOUTHEAST ACROSS YEARS CORN HYBRID TESTS (2014-2016)

## Rainfed Butler, Otoe, and Gage Counties

BRAND	HYBRID	2 Year Averages		
		Yield (bu/a)	Harvest Moisture (%)	Bushel Weight (lb/bu)
Midland Genetics	656PR	224	14	58
Phillips Seed Farms	PSF133	221	13	56
Midland Genetics	594PR DG	218	14	56
Midland Genetics	653PR	217	14	58
Phillips Seed Farms	789 AG	210	14	56
Titan Pro	TP 56-14 2P	208	14	58
Phillips Seed Farms	PSF082	206	12	56
Phillips Seed Farms	PSF143	206	14	58
Titan Pro	TP 55-11 2P	203	13	56
<b>Average</b>		<b>208</b>	<b>13</b>	<b>57</b>
		3 Year Averages		
Phillips Seed Farms	PSF082	213	13	56
Phillips Seed Farms	PSF143	211	14	58
Phillips Seed Farms	789 AG	208	14	56
<b>Average</b>		<b>211</b>	<b>13</b>	<b>57</b>



# SOUTHEAST ACROSS YEARS CORN HYBRID TESTS (2014-2016)

## Irrigated York, Hamilton, and Clay Counties

BRAND	HYBRID	2 Year Averages		
		Yield (bu/a)	Harvest Moisture (%)	Bushel Weight (lb/bu)
Midland Genetics	594PR DG	293	15	56
Midland Genetics	714PRW	286	15	56
Phillips Seed Farms	PSF133	285	15	56
Titan Pro	TP 56-14 2P	281	15	57
Midland Genetics	775PR DG	279	14	57
Midland Genetics	656PR	275	15	59
Midland Genetics	735PR	273	16	56
Phillips Seed Farms	789 AG	263	14	57
Titan Pro	TP 55-11 2P	261	14	57
Phillips Seed Farms	PSF082	258	13	57
Phillips Seed Farms	PSF143	249	15	59
Phillips Seed Farms	PSF003	214	13	57
<b>Average</b>		<b>268</b>	<b>14</b>	<b>57</b>
		3 Year Averages		
Midland Genetics	714PRW	292	15	57
Phillips Seed Farms	789 AG	264	15	57
Phillips Seed Farms	PSF082	261	13	57
Midland Genetics	735PR	258	15	56
Phillips Seed Farms	PSF143	257	15	59
<b>Average</b>		<b>266</b>	<b>15</b>	<b>57</b>

## NORTHEAST CORN HYBRID TESTS Dixon County Irrigated - 2016

BRAND	HYBRID	Average Yield (bu/a)	Harvest Moisture (%)	Bushel Weight (lb/bu)
Titan Pro	TP 59-08 SS	254	18	57
NNB	DKC 58-06 woBWT	254	18	59
NNB	DKC 61-54 wBWT	248	19	58
NNB	DKC 58-06 wBWT	245	19	57
Titan Pro	TP 66-10 2P	233	19	57
NNB	DKC 61-54 woBWT	232	20	57
Titan Pro	TP 56-06 3110	208	17	55
<b>Average</b>		<b>239</b>	<b>19</b>	<b>57</b>
<b>Difference required for significance (p≤05)</b>		<b>20</b>	<b>1</b>	<b>1</b>

## Dixon County Rainfed - 2016

BRAND	HYBRID	Average Yield (bu/a)	Harvest Moisture (%)	Bushel Weight (lb/bu)
NNB	DKC 61-54 woBWT	238	18	56
NNB	DKC 58-06 wBWT	238	18	56
NNB	DKC 61-54 wBWT	233	19	57
NNB	DKC 58-06 woBWT	232	18	56
Titan Pro	TP 59-08 SS	229	17	56
Titan Pro	TP 66-10 2P	224	18	55
Titan Pro	TP 56-06 3110	190	17	53
<b>Average</b>		<b>226</b>	<b>18</b>	<b>56</b>
<b>Difference required for significance (p≤05)</b>		<b>14</b>	<b>1</b>	<b>84</b>

## NORTHEAST ACROSS YEARS CORN HYBRID TESTS (2015-2016)

BRAND	HYBRID	IRRIGATED		
		Yield (bu/a)	Harvest Moisture (%)	Bushel Weight (lb/bu)
Titan Pro	TP 59-08 SS	250	17	58
Titan Pro	TP 56-06 3110	208	16	57
<b>Average</b>		<b>229</b>	<b>17</b>	<b>57</b>
		RAINFED		
Titan Pro	TP 59-08 SS	211	17	57
Titan Pro	TP 56-06 3110	189	16	56
<b>Average</b>		<b>200</b>	<b>16</b>	<b>57</b>



# NEBRASKA SOYBEAN VARIETY TESTS

- 2016 -

## CROP PRODUCTION SUMMARY

According to the National Agricultural Statistics Service, there were 5.2 million acres of soybeans planted in Nebraska in 2016. 5.15 million acres were harvested producing around 319 million bushels. The average soybean yield for all production practices in Nebraska for 2016 was 62 bushels per acre (bu/a). Soybean yields from the previous 10 years are reported below.

	<b>Average Nebraska Soybean Yield (Last 10 Years)</b>										
<b>Year</b>	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Yield (bu/a)</b>	50	51	46.5	54.5	52.5	54	41.5	53.5	54	58	62

Source: National Agricultural Statistics Service (<http://www.nass.usda.gov>)

Detailed information regarding crop progress and history can be obtained from the *National Agricultural Statistics Service* available online at <http://www.nass.usda.gov>.

## PROCEDURE

Five soybean yield trials were planted at four locations in spring of 2016. All entries were privately developed varieties entered by an industry representative. Farm entries were selected by the cooperating farmer. Soil type of testing sites and cultural practices applied are shown in Table B. At three locations entries were divided into early and late maturing varieties for convenience in handling. Average performances of entries for key agronomic and quality characteristics are shown in Table C. A list of entries by brand name is shown in Table D, while details about each hybrid are shown on Table E. Names and addresses of entrants and corresponding contact addresses are listed in Table F.

Entries were planted in four-row plots 15 to 35 feet long. Plots were replicated four times in a randomized complete block design. A planting rate of 8.5 seeds per foot in 30-inch rows (148,100 seeds per acre) was used.

Two center rows 10 to 30 feet long were threshed for yield. Reported yields are corrected to 13% moisture. Plots were rated mature when 95% of the pods had reached their mature pod color when maturity is taken. Most often, five to ten days of drying weather are required after "maturity" before the soybeans have less than 15% moisture.

Protein and oil content is reported on a 13% moisture basis and will appear lower than many reported figures. Conversions can be made to 0% by multiplying the protein or oil by 1.13. Estimated Processed Value (EPV) is calculated from the protein and oil content from the Chicago Board of Trade prices for soybean oil and 48% protein soybean meal. EPV is calculated on an acre basis by multiplying the yield (bu/acre) by the EPV/bu.

## **PERFORMANCE**

Performance of entries cannot be measured with absolute accuracy in one season because of variations in moisture, soil fertility and other factors. Also, most fields contain some spatial variability. Because of the many sources of variability, small yield differences have little significance. Differences required for significance are shown in each table at the 5% level. This means that differences this great would be expected through chance alone in 1 of 20 trials. A simple way of thinking of these differences is that if all the plots had been the same variety that would be the difference that would have been measured. Many soybean varieties have similar yield potentials. Early maturing varieties are favored in some seasons and later maturing varieties in others. Zone averages and period-of-years averages provide a measure of performance over a range of environmental conditions.

Period-of-years data for varieties include two, and three-year averages. It should be noted that with the rapid development and turnover of varieties, very few varieties have more than one year averages. We encourage you to use data from many sources in comparing soybean varieties.

## **RESULTS AND MANAGEMENT AT INDIVIDUAL LOCATIONS**

### **East/South Central District:**

Four tests were planted at two locations in Clay, Lancaster, and Saunders Counties:

- The Clay County irrigated early and late tests were planted on June 3rd. This test was harvested on October 21st with the 5 early maturing entries averaging 68 bu/a and the 18 late maturing entries averaging 67 bu/a.
- The Saunders County irrigated tests were planted on June 2nd into a conventionally tilled field. This test was harvested on October 25th with the 5 early maturing entries averaging 70 bu/a and the 18 late maturing entries averaging 68 bu/a.

### **Southeast District:**

There were two tests (early set and late set) at one location in Saline County:

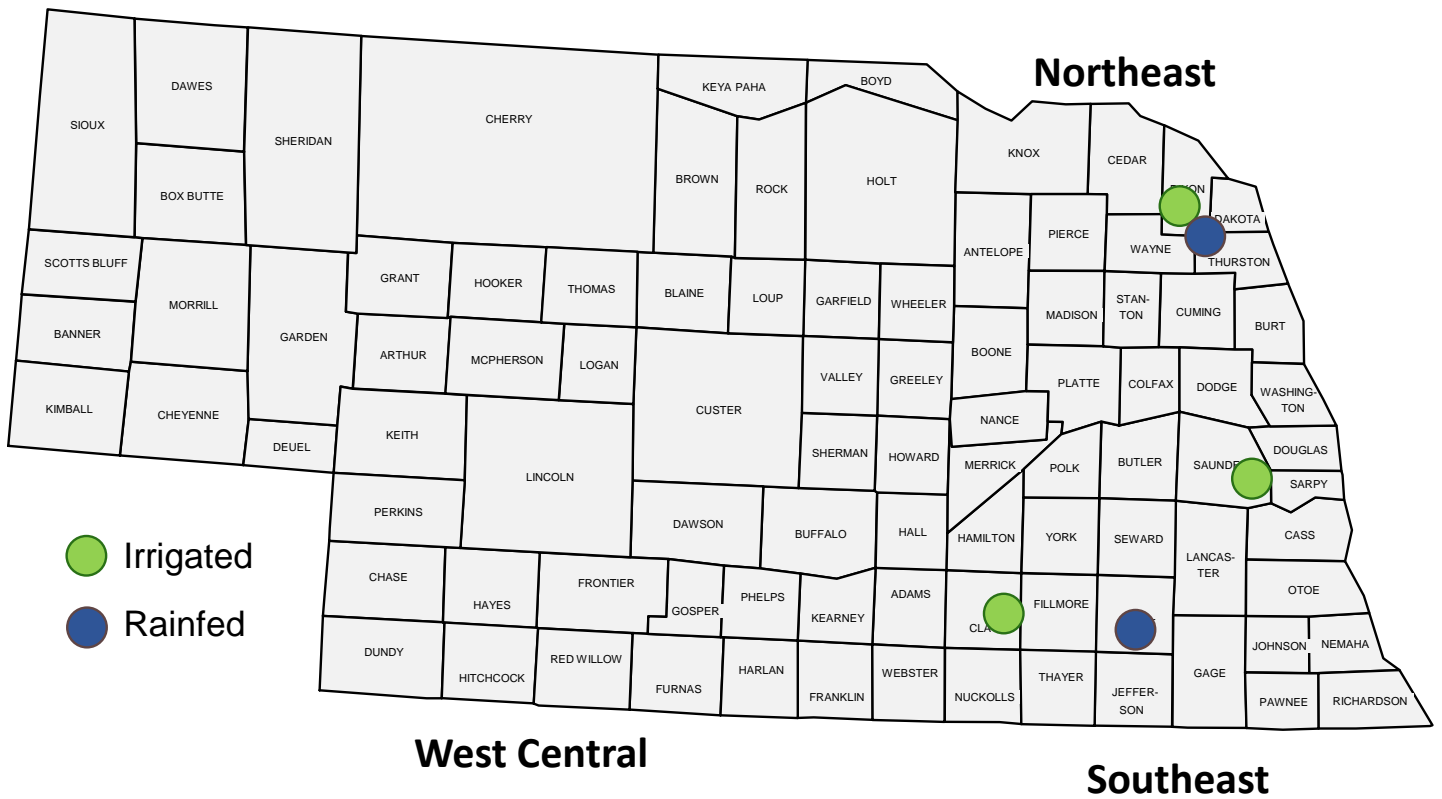
- The Saline County rainfed test was planted on June 3rd and harvested on October 24th. This site utilized a no-till system and was planted into corn residue. The early maturing test had 8 entries and averaged 59 bushels per acre. The late maturing test had 16 entries and averaged 53 bushels per acre.

### **Northeast District:**

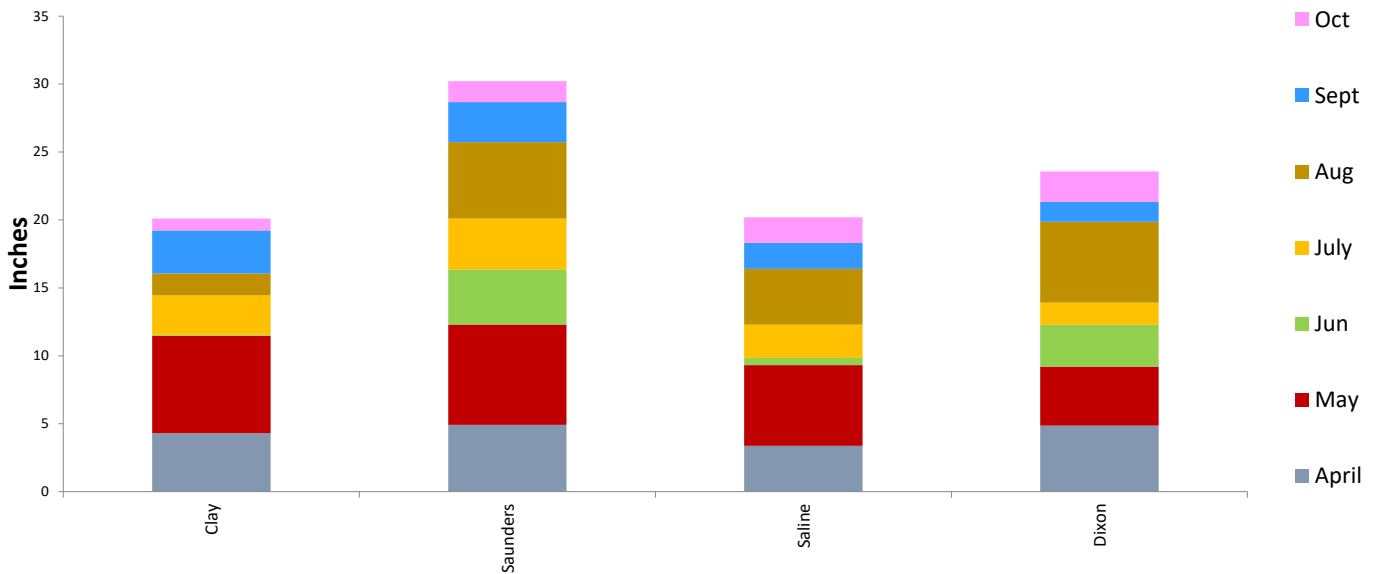
There were four tests planted at two separate locations in Dixon County.

- The Dixon County rainfed tests were planted on June 2nd and harvested on October 19th with an average yield of 66 bu/a.
- The Dixon County irrigated tests were planted on June 2nd and harvested on October 20th with an average yield of 74 bu/a.

# 2016 SOYBEAN TRIAL SITE LOCATIONS



# 2016 SOYBEAN TRIAL SITE PRECIPITATION



**Table A. Locations, Cooperators, Planting and Harvest Dates of Nebraska Soybean Test Plots**

Location	Cooperator	Condition	Maturity	Date		Latitude	Longitude
				Planted	Harvested		
<b>East / South Central</b>							
Clay County	UNL South Central Res & Ext Center; Harvard, NE	Irrigated	Early and Late	6/3/2016	10/21/2016	40.57362	-98.13593
Saunders County	UNL Agricultural Res & Dev Center; Ithica, NE	Irrigated	Early and Late	6/2/2016	10/25/2016	41.16357	-96.41499
<b>Southeast District</b>							
Saline County	Dennis Broz; Wilber, NE	Rainfed	Early and Late	6/3/2016	10/24/2016	40.46540	-97.10287
<b>Northeast District</b>							
Dixon County	Haskell Ag Lab; Concord, NE	Rainfed	Late	6/2/2016	10/19/2016	42.37881	-96.95503
Dixon County	Haskell Ag Lab; Concord, NE	Irrigated	Late	6/2/2016	10/20/2016	42.38403	-96.95383



## Table B. Soil Type and Cultural Practices at Soybean Trial Sites

Location	Condition	Soil Type	Tillage	Previous Crop	Fertilizer	Herbicide
<b>East / South Central</b>						
Clay County	Irrigated	Crete silt loam	No-till	Corn	100 lb/a 11-52-0	Dual II Magnum (1.3 pt/a) + Roundup PowerMax (23 oz/a)
Saunders County	Irrigated	Tomek silt loam	Disk	Corn	None	Authority XL, Senior, 2,4-D, Roundup
<b>Southeast District</b>						
Saline County	Rainfed	Crete silt loam	No-till	Corn	None	Pre-emerge: Authority XL (4oz/a), LV6 (16 oz/a), Roundup PowerMax (32oz/a) + generic Dual (1.33pt/a); Post-emerge: Select (8 oz/a) + PowerMax (44 oz/a)
<b>Northeast District</b>						
Dixon County	Rainfed	Alcester silt loam	Disk	Corn	None	Durango DMA (32 oz/a) + Request (2 qt/100 gal) + Targa (8 oz/a) in June, First Rate (0.6 oz/a) + Crop oil conc. (1.2 gal/100 gal) in July
Dixon County	Irrigated	Maskell loam	Disk	Corn	None	Durango DMA (32 oz/a) + Request (2 qt/100 gal) + Targa (8 oz/a) in June, First Rate (0.6 oz/a) + Crop oil conc. (1.2 gal/100 gal) in July

**Table C. Average Performance of Soybean Entries at Each Test Location**

Test	Entries	Yield (bu/a)	Bushel Weight (lb/bu)	Plant Height (inch)	Seed Size (grain/lb)	Grain Protein (%)	Grain Oil (%)	EPV (\$)
<b>East/South Central</b>								
Saunders Early Irrigated	5	70	54	43	2985	40.0	18.0	11.6
Saunders Late Irrigated	18	68	54	45	2891	39.0	19.0	11.6
Clay Early Irrigated	5	68	54	40	2820	40.5	18.3	11.7
Clay Late Irrigated	18	67	54	42	2866	39.0	18.9	11.5
<b>Southeast District</b>								
Saline Early Rainfed	8	59	53	36	2878	42	19	12.1
Saline Late Rainfed	16	53	53	36	3019	41	19	12
<b>Northeast District</b>								
Dixon Rainfed	9	66	58	37	2842	39.3	19	11.6
Dixon Irrigated	9	74	57	44	2682	40.3	18.8	11.7



## Table D. Soybean Entrant Brand and Hybrids Overview

Brand	Hybrids Entered
<b>Midland Genetics</b>	2557NR2, 2827NX, 3017NX, 3237NR2, 3465NR2, 3537NX, 3633NR2, 3657NR2, 3887NX, 3926NRS2, 3983NR2
<b>NNB - BLOWISH Tech</b>	AG 2035 w/o BWT, AG 2035 w/ BWT, AG 2636 w/o BWT, AG 2636 w/ BWT, AG 32X6 w/o BWT, AG 32X6
<b>Phillips Seed</b>	335 NR2Y, 363 NR2YE, 392 NR2YS
<b>Titan Pro SCI</b>	TP-24R26, TP-26R35, TP-28X45, TP-30X05, TP-34X86, TP-37X96
<b>Willcross Seed</b>	WXX3376N

## Table F. Nebraska Soybean Performance Tests Entrants

Brand	Address	Contact	Phone	Website
Midland Genetics	1906 Kingman Rd Ottawa, KS 66067	Clyde Sylvester	800-819-7333	midlandgenetics.com
Phillips Seed Farms	980 Hwy 15 Hope KS 67451	Matt Wilber	785-949-2204	phillipsseed.com
Titan Pro SCI	1301 South 24th St Clear Lake, IA 50428	Darren Bakken	641-420-0632	titanprosci.com
Willcross Seed	P.O.Box 667 4564 US Hwy 169 King City, MO 64463	Brad Law	660-483-0355	willcrossseed.com
NNB - BLOWISH Tech	2724 Erie Ave, Cincinnati, OH 45208	Mike Showell	312-572-6700	biowishtechnologies.com

## Table E. Soybean Entry Brand, Hybrid, and Technology Details

Brand	Variety	Color				Maturity Group
		Flower	Pubesc	Pod	Hilum	
Midland Genetics	2557NR2	-	-	-	-	2.5
Midland Genetics	2827NX	-	-	-	-	2.8
Midland Genetics	3017NX	-	-	-	-	3.0
Midland Genetics	3237NR2	-	-	-	-	3.2
Midland Genetics	3465NR2	-	-	-	-	3.4
Midland Genetics	3537NX	-	-	-	-	3.5
Midland Genetics	3633NR2	-	-	-	-	3.6
Midland Genetics	3657NR2	-	-	-	-	3.6
Midland Genetics	3887NX	-	-	-	-	3.8
Midland Genetics	3926NRS2	-	-	-	-	3.9
Midland Genetics	3983NR2	-	-	-	-	3.9
NNB	AG 2035 woBWT	-	-	-	-	2.0
NNB	AG 2035 wBWT	-	-	-	-	2.0
NNB	AG 2636 woBWT	-	-	-	-	2.6
NNB	AG 2636 wBWT	-	-	-	-	2.6
NNB	AG 32X6 woBWT	-	-	-	-	3.2
NNB	AG 32X6 wBWT	-	-	-	-	3.2
Phillips Seed Farms	335 NR2Y	P	G	BR	IB	3.3
Phillips Seed Farms	363 NR2YE	P	G	BR	IB	3.6
Phillips Seed Farms	392 NR2YS	W	G	BR	BF	3.9
Titan Pro	TP-24R26	P	LT	BR	BL	2.4
Titan Pro	TP-26R35	P	G	T	IB	2.6
Titan Pro	TP-28X45	P	G	BR	IB	2.8
Titan Pro	TP-30X05	P	G	BR	IB	3.0
Titan Pro	TP-34X86	P	G	BR	IB	3.4
Titan Pro	TP-37X96	P	G	T	IB	3.7
Willcross Seed	WXX3376N	-	-	-	-	3.7



# EAST CENTRAL IRRIGATED SOYBEAN VARIETY TEST

## 2016 - Saunders and Clay Counties

Brand	Variety	Avg Yield (bu/a)	Saunders (bu/a)	Clay (bu/a)	Bushel Weight (lb/bu)	Plant Height (inch)	Seed size (grain/lb)	Grain Protein (%)	Grain Oil (%)
<b>Early maturing</b>									
Midland Genetics	2557NR2	76	76	76	53	40	2880	40.1	18.5
Titan Pro	TP-30X05	69	70	67	54	46	2990	40.7	18.7
Titan Pro	TP-28X45	68	68	69	54	40	2840	40.4	18.0
Midland Genetics	2827NX	67	69	65	54	39	2830	39.9	18.1
Midland Genetics	3017NX	64	65	63	54	44	2990	40.8	18.3
<b>Average</b>		<b>69</b>	<b>70</b>	<b>68</b>	<b>54</b>	<b>42</b>	<b>2906</b>	<b>40.4</b>	<b>18.3</b>
<b>Diff. required for significance 5%</b>		<b>3</b>	<b>5</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>103</b>	<b>0.8</b>	<b>0.3</b>
<b>Late maturing</b>									
Phillip Seed Farms	335 NR2Y	75	78	73	54	43	2940	38.7	18.5
Midland Genetics	3237NR2	74	69	79	55	44	2810	40.3	17.9
Midland Genetics	3537NX	74	74	74	54	42	2880	39.2	19.2
NNB	AG 2636 woBWT	71	70	71	54	45	2770	38.2	19.3
Phillip Seed Farms	363 NR2YE	70	68	72	54	45	2650	39.5	18.9
Titan Pro	TP-34X86	70	76	64	54	41	2960	39.4	19.2
NNB	AG 2035 woBWT	70	70	69	54	40	2700	39.7	20.5
Midland Genetics	3926NRS2	70	71	68	55	42	2870	40.8	18.2
NNB	AG 2035 wBWT	69	70	69	53	39	2750	40.1	20.3
NNB	AG 32X 6 wBWT	69	71	67	54	40	2920	39.3	19.1
NNB	AG 2636 wBWT	69	69	69	53	45	2840	38.2	19.2
Midland Genetics	3633NR2	68	67	68	54	47	3000	39.3	17.9
NNB	AG 32X 6 woBWT	67	68	67	54	41	2940	39.4	19.2
Midland Genetics	3465NR2	67	69	65	55	45	2650	38.7	19.1
Midland Genetics	3983NR2	64	65	63	55	45	2750	38.4	19.4
Midland Genetics	3887NX	63	63	64	55	45	3130	38.1	18.8
Phillip Seed Farms	392 NR2YS	58	59	57	55	45	3070	38.8	18.7
Midland Genetics	3657NR2	51	51	51	54	50	3220	37.7	19.2
<b>Average</b>		<b>68</b>	<b>68</b>	<b>67</b>	<b>54</b>	<b>44</b>	<b>2881</b>	<b>39.1</b>	<b>19.0</b>
<b>Diff. required for significance 5%</b>		<b>6</b>	<b>4</b>	<b>6</b>	<b>1</b>	<b>2</b>	<b>160</b>	<b>1.0</b>	<b>0.4</b>

# EAST CENTRAL IRRIGATED SOYBEAN VARIETY TEST ACROSS YEARS (2014-2016) Saunders and Clay Counties

Brand	Variety	Avg Yield (bu/a)	Bushel Weight (lb/bu)	Seed size (grain/lb)	Grain Protein (%)	Grain Oil (%)
<b>Early Maturing Two Year Means</b>						
Titan Pro	TP-28X45	65	53	2840	40	19
Titan Pro	TP-30X05	65	53	2990	39	20
<b>Two year means</b>		<b>65</b>	<b>53</b>	<b>2915</b>	<b>40</b>	<b>19</b>
<b>Late Maturing Two Year Means</b>						
Phillip Seed Farms	335 NR2Y	73	53	2940	39	19
Midland Genetics	3465NR2	70	54	2650	39	19
Titan Pro	TP-34X86	70	53	2960	40	19
Phillip Seed Farms	363 NR2YE	70	54	2650	39	19
Midland Genetics	3633NR2	69	53	3000	39	18
Midland Genetics	3926NRS2	69	53	2870	41	19
Midland Genetics	3983NR2	67	53	2750	39	19
Phillip Seed Farms	392 NR2YS	63	54	3070	39	19
<b>Two year means</b>		<b>69</b>	<b>53</b>	<b>2861</b>	<b>39</b>	<b>19</b>
<b>Late maturing Three Year Means</b>						
Phillip Seed Farms	363 NR2YE	71	56	2650	37	19
Midland Genetics	3926NRS2	70	54	2870	38	19
Midland Genetics	3465NR2	70	54	2650	37	20
Phillip Seed Farms	392 NR2YS	65	55	3070	37	19
<b>Three year means</b>		<b>69</b>	<b>54</b>	<b>2810</b>	<b>37</b>	<b>19</b>

# SOUTHEAST RAINFED SOYBEAN VARIETY TEST

## 2016 - Saline County

Brand	Variety	Yield (bu/a)	Bushel Weight (lb/bu)	Plant Height (inch)	Seed size (grain/lb)	Grain Protein (%)	Grain Oil (%)
<b>Early maturing</b>							
Titan Pro	TP-34X86	64	53	34	2860	42.0	19.0
Phillip Seed Farms	335 NR2Y	64	53	36	2890	41.2	18.6
Midland Genetics	2557NR2	60	52	33	3060	41.0	19.5
Midland Genetics	3237NR2	59	53	39	2980	41.4	18.2
Midland Genetics	3465NR2	57	52	39	2620	42.2	18.9
Titan Pro	TP-30X05	57	53	36	2840	43.9	18.5
Midland Genetics	3017NX	56	53	39	2890	44.3	17.9
Midland Genetics	2827NX	54	52	31	2870	43.3	18.6
<b>Average</b>		<b>59</b>	<b>52</b>	<b>36</b>	<b>2876</b>	<b>42</b>	<b>19</b>
<b>Difference required for significance 5%</b>		<b>6</b>	<b>1</b>	<b>2</b>	<b>121</b>	<b>1.3</b>	<b>1.1</b>
<b>Late maturing</b>							
Midland Genetics	3537NX	61	53	33	2940	42.0	18.7
Midland Genetics	3633NR2	61	53	38	3050	41.1	18.0
Midland Genetics	3926NRS2	61	53	38	3110	42.2	17.8
Phillip Seed Farms	363 NR2YE	56	53	39	2870	40.8	18.9
Willcross Seed	WXX3376N	55	54	32	3310	41.1	18.7
NNB	AG 32X 6 wBWT	55	53	32	2980	42.4	19.1
Titan Pro	TP-37X96	54	53	37	3160	42.1	18.2
NNB	AG 2636 wBWT	54	52	37	2790	39.1	19.7
NNB	AG 32X 6 woBWT	54	53	34	2990	42.2	19.3
Phillip Seed Farms	392 NR2YS	54	54	38	3240	40.8	19.0
Midland Genetics	3983NR2	51	53	40	3040	40.9	18.7
NNB	AG 2636 woBWT	51	51	36	3010	39.7	20.4
Midland Genetics	3887NX	50	53	40	3200	41.6	18.3
NNB	AG 2035 woBWT	43	51	32	2680	41.9	20.4
Midland Genetics	3657NR2	42	52	42	3290	39.9	19.2
NNB	AG 2035 wBWT	39	51	32	2640	42.2	20.7
<b>Average</b>		<b>52</b>	<b>53</b>	<b>36</b>	<b>3019</b>	<b>41</b>	<b>19</b>
<b>Difference required for significance 5%</b>		<b>5</b>	<b>1</b>	<b>2</b>	<b>127</b>	<b>1.2</b>	<b>0.3</b>

# NORTHEAST SOYBEAN VARIETY TEST 2016 - Dixon County

Brand	Variety	Yield (bu/a)			Bushel weight (lb/bu)	Plant height (inch)	Seed size (grain/lb)	Grain Protein (%)	Grain Oil (%)
		Avg	Rainfed	Irrigated					
NNB	AG 2035 woBWT	74	70	79	57.3	39	2570	40.6	19.7
NNB	AG 2035 wBWT	74	68	79	57.2	38	2650	40.1	19.9
Titan Pro	TP-24R26	73	67	79	57.7	41	2700	39.9	19.6
Titan Pro	TP-26R35	72	70	73	57.7	39	2910	39.9	18.0
NNB	AG 2636 wBWT	71	68	73	58.0	44	2770	38.6	18.8
Titan Pro	TP-28X45	70	66	74	58.3	39	2760	41.2	17.4
NNB	AG 2636 woBWT	69	66	72	58.1	44	2770	38.6	18.9
NNB	AG 32X 6 wBWT	64	61	66	57.7	41	2800	40.8	18.7
NNB	AG 32X 6 woBWT	64	60	68	57.6	41	2750	40.7	18.7
<b>Average</b>		<b>70</b>	<b>66</b>	<b>74</b>	<b>57.7</b>	<b>41</b>	<b>2742</b>	<b>40.0</b>	<b>18.9</b>
<b>Diff required for signif 5%</b>		<b>4</b>	<b>5</b>	<b>4</b>	<b>0.3</b>	<b>3</b>	<b>77</b>	<b>0.7</b>	<b>0.8</b>



A close-up photograph of a plant stem covered in fine, white, hair-like structures. The stem is green and runs vertically through the center of the frame. Several small, purple flowers are attached to the stem, some in full bloom and others as buds. The background is a soft, out-of-focus green, suggesting a field or garden setting.

Brought to you by the University of Nebraska

Variety Testing Program

<http://cropwatch.unl.edu/varietytest>

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