



2011 Soybean Variety Performance Tests - Vinita



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2011 Soybean

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Information on Soybean Variety Trials

Numerous soybean lines and varieties were evaluated in performance tests during 2011. Commercially available varieties, both public and private, and advanced experimental lines were included within the tests. Tests were designed to provide information to assist producers in identifying superior varieties and make crop management decisions. Tests include both early-season and full-season environments. Early-season tests were planted during April and contained maturity group (MG) III and IV. Full-season tests were planted during June and into the beginning of July and included varieties in MG IV, V, and VI.

Public varieties included in tests are considered to be competitive for the region, and are represented by established varieties, new releases, and advanced experimental lines. Varieties of private seed company origin are submitted based on decisions by the respective company.

Methods

All test plots were planted using four 30-inch rows that were 25 feet long. Plots were seeded at a rate of eight seeds per row foot (139,392 seeds per acre). At planting, *Bradyrhizobium japonicum* in a liquid formulation was applied with the seed. Tests were conducted using randomized complete block design with four replications. Irrigation was used only at the Fort Cobb location. Two rows the entire length of the plot was harvested with a small plot combine to determine grain yield.

Interpreting Data

Performance of soybean varieties is affected by many factors, including year, location, soil type, and time of planting. Details of establishment and management of each test are listed in footnotes below the tables.

Small differences in yield are usually of little importance. The reason being that two varieties at a single location can differ because of "chance" factors which may include soil fertility, soil type, depth of top soil, etc. To decide if a yield difference is "real", use the least significant differences (LSD) at the bottom of all tables. Differences between varieties are significant only if they are equal to or greater than the LSD value. If a given variety out yields another variety by as much or more than the LSD value, then we are 95% sure that the yield difference is real, with only a 5% probability that the difference is due to chance alone. For example, if variety X is 5 bushels/acre higher in yield than variety Y, then this difference is statistically significant if the LSD is 5 or less. If the LSD is 5 or greater, then we are less confident that variety X really is higher yielding than variety Y under the conditions of the test.

Results reported here should be representative of what might occur throughout the state but would be most

applicable under environmental and management conditions similar to those of the tests. The relative yields of all soybean varieties are affected by crop management and by environmental factors including soil type, summer conditions, soil moisture conditions, diseases, and insects.

Additional information on the Web

A copy of this publication as well as additional variety information and more information on soybean management can be found at

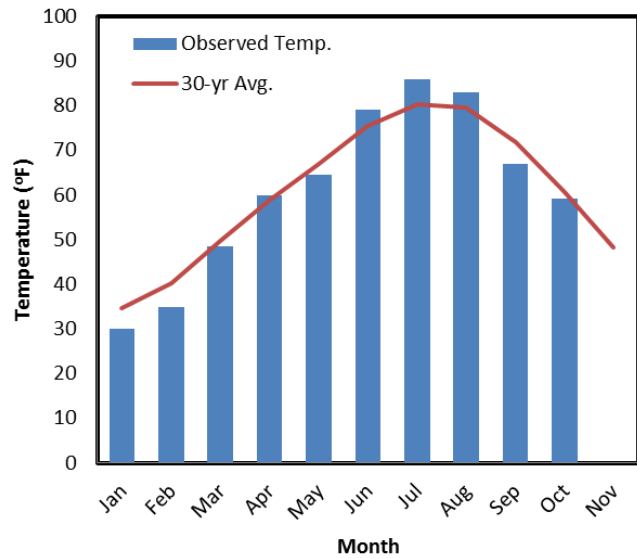
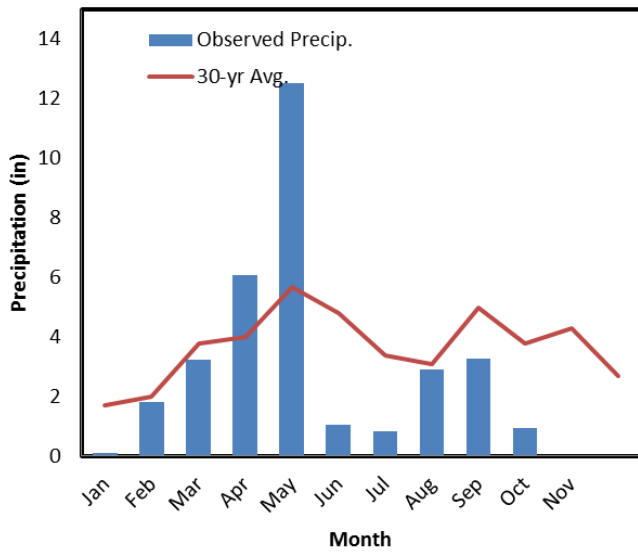
www.oilseeds.okstate.edu/

An individual is encouraged to review 2 to 3 years of variety test results before making a variety selection. Because soybean varieties change often multiple years of data are not compared in this publication but previous years data can be found at the previously mentioned website.

Table 1. Sources of seed for the 2011 NE Oklahoma Soybean Variety Trials.

Name/Address	Contact	Entries	Maturity Group	Regions Entered	Type	Soybean Cyst Nematode Resistance	Root Knot Nematode Resistance
Asgrow www.asgrowanddekalb.com		AG 3830	3.8	All	RR2	3	
		AG 4730	4.7	All	RR2,STS		
		AG 4903	4.9	All	RR,STS		
		AG 5632	5.6	All	RR2,STS	3, 14	
		AG 5605	5.6	All	RR	3	
Progeny Ag Products 1529 Hwy 193 Wynne, AR 72396 http://www.progenyag.com	870-238-2079	Progeny 4910	4.9	All	CONV	3, 6, 14	
		Progeny 5191	5.1	All	CONV	2, 3, 5, 14	I
		Progeny 5770	5.7	All	CONV	3, 6, 9	
		Progeny 4908 RR	4.9	All	RR		
		Progeny 4949 RR	4.9	All	RR		
		Progeny 5218 RR	5.2	All	RR	3	I
		Progeny 5622 RR	5.6	All	RR	2, 3, 6, 9, 14	
		Progeny 5650 RR	5.6	All	RR	3, 14	
		Progeny 4911 RY	4.9	All	RR2		I
		Progeny 5111 RY	5.1	All	RR2		I
		Progeny 5210 RY	5.2	All	RR2	3, 14	I
		Progeny 5321 RY	5.3	All	RR2		I
		Progeny 5655 RY	5.6	All	RR2		I
		Progeny 5610 RY	5.6	All	RR2	3, 14	I
		Progeny 4928 LL	4.9	All	Liberty Link	3	
Progeny 5160 LL	5.1	All	Liberty Link				
Progeny 5261 LL	5.2	All	Liberty Link				
Progeny 5460 LL	5.4	All	Liberty Link		I		
Syngenta Seeds www2.syngenta.com/	254-424-8570	S46-A1 Brand	4.6	All	RR2	3, 14	
		S47-R3 Brand	4.7	All	RR	3, 14	
		S49-A5 Brand	4.9	All	RR	3	
Terral Seed, Inc. PO Box 826 Lake Providence, LA 71254 http://www.terralseed.com/	318-559-2840	REV 44R22	4.4	NC, NE	RR		
		REV 45R10	4.5	NC, NE	RR	3	A
		REV 47R22	4.7	NC, NE	RR		
		REV 48R10	4.8	NC, NE	RR	3	A
		REV 48R21	4.8	NC, NE	RR		
		REV 48R22	4.8	NC, NE	RR		
		REV 49R22	4.9	NC, NE	RR		
		REV 55R21	5.5	NC, NE	RR,STS		
		REV 56R21	5.6	NC, NE	RR		A
		REV 57R21	5.7	NC, NE	RR		
		REV 46R73	4.6	NC, NE	RR		
		REV 47R53	4.7	NC, NE	RR		
		REV 48R33	4.8	NC, NE	RR		
		REV 49R43	4.9	NC, NE	RR		
		REV 51R53	5.1	NC, NE	RR		
REV 49R23	4.9	NC, NE	RR				
REV 56R63	5.6	NC, NE	RR				

Vinita



Location Summary:

An early-season and full season test was planted at Vinita in 2011 but only the full-season test was harvested. Both test were influenced by the below normal precipitation and above normal temperatures in June, July and August. Rainfall in August did help the full-season test. The average yield was 10 bu/ac, when averaged across all varieties. The average yield was consistent with what area producers observed in 2011.

Table 2. Information on soil chemical properties and management practices for the Soybean Production Test at Vinita, OK in 2011.

Soil Properties	Result	Cultural Practice	Information
pH	na ¹	Planting Date	6/3/2011
Soil Test P Index	na	Seeding Rate (seeds/foot of row)	8
Soil Test K Index	na	Seeding Depth (in)	1
		Irrigation	none
		Harvest Date	11/1/2011
		Soil Moisture at Planting	good

¹Not available.

Table 3. Full-season soybean production variety trial near Vinita, OK 2011.

Variety	Company	Maturity Group	Height - in -	Shattering ¹ Score	Lodging ¹ Score	Seed/Lb	Yield - bu/acre -	Percent Yield of Trial Average - - % - -
Progeny 4910 ²	Progeny Ag Products	4.9	27	0	0	3700	15.1	148%
Progeny 5610 RY	Progeny Ag Products	5.6	24	0	0	2750	14.6	143%
Progeny 5111 RY	Progeny Ag Products	5.1	26	0	0	3200	14.5	143%
Progeny 5218 RR	Progeny Ag Products	5.2	23	0	0	2700	14.5	142%
REV 56R21	Terral Seed, Inc.	5.6	24	0	0	3050	13.8	135%
AG 5605	Asgrow	5.6	27	0	0	3000	13.7	134%
REV 48R33	Terral Seed, Inc.	4.8	29	1	0	2750	13.7	134%
AG 4903	Asgrow	4.9	25	0	0	2650	13.6	134%
AG 5632	Asgrow	5.6	28	0	0	3150	13.0	127%
REV 49R22	Terral Seed, Inc.	4.9	29	1	0	2850	12.7	124%
Progeny 5160 LL ³	Progeny Ag Products	5.1	19	0	0	2850	12.3	121%
REV 57R21	Terral Seed, Inc.	5.7	29	0	0	3200	12.1	119%
REV 49R23	Terral Seed, Inc.	4.9	30	0	0	3050	11.6	113%
Progeny 5191 ²	Progeny Ag Products	5.1	24	0	0	3100	11.3	111%
Progeny 4908 RR	Progeny Ag Products	4.9	22	0	0	3750	10.8	106%
REV 47R22	Terral Seed, Inc.	4.7	22	1	0	3200	10.8	106%
Progeny 5261 LL ³	Progeny Ag Products	5.2	21	0	0	2900	10.6	104%
Progeny 5655 RY	Progeny Ag Products	5.6	27	0	0	2800	10.1	99%
REV 48R21	Terral Seed, Inc.	4.8	25	0	0	3050	9.9	97%
Progeny 5622 RR	Progeny Ag Products	5.6	26	0	0	3400	9.7	95%
Progeny 5210 RY	Progeny Ag Products	5.2	24	0	0	2950	9.5	93%
REV 51R53	Terral Seed, Inc.	5.1	24	1	0	2700	9.4	92%
AG 4730	Asgrow	4.7	23	1	0	3200	9.2	90%
REV 55R21	Terral Seed, Inc.	5.5	24	0	0	3450	9.1	89%
REV 48R22	Terral Seed, Inc.	4.8	22	1	0	2900	9.1	89%
REV 47R53	Terral Seed, Inc.	4.7	20	1	0	3000	8.9	88%
REV 49R43	Terral Seed, Inc.	4.9	23	2	0	2950	8.5	83%
Progeny 5650 RR	Progeny Ag Products	5.6	27	0	0	3450	8.3	82%
Progeny 4949 RR	Progeny Ag Products	4.9	22	1	0	3150	8.3	82%
REV 56R63	Terral Seed, Inc.	5.6	31	0	0	3050	8.2	80%
Progeny 5770 ²	Progeny Ag Products	5.7	24	0	0	3350	8.1	80%
Progeny 4911 RY	Progeny Ag Products	4.9	20	0	0	3300	8.1	79%
Progeny 5460 LL ³	Progeny Ag Products	5.4	19	0	0	3100	7.6	74%
REV 44R22	Terral Seed, Inc.	4.4	19	1	0	2650	7.6	74%
Progeny 5321 RY	Progeny Ag Products	5.3	19	0	0	2700	7.3	72%
Progeny 4928 LL ³	Progeny Ag Products	4.9	18	1	0	2850	7.0	69%
REV 48R10	Terral Seed, Inc.	4.8	24	1	0	3100	5.8	57%
REV 45R10	Terral Seed, Inc.	4.5	21	2	0	2700	5.2	51%
REV 46R73	Terral Seed, Inc.	4.6	25	3	0	2650	5.2	51%
LSD (P=0.05)							2.8	

¹0 = no shattering or lodging, 5 = very severe shattering or lodging.

²Conventional variety

³Liberty Link soybean variety

Table 4. Two year average yield (2010-2011) results for Vinita, OK.

Variety	Company	Maturity Group	2010 Percent Yield of Trial		2011 Percent Yield of Trial		2-yr Average
			2010 Yield - bu/acre -	Average -- % --	2011 Yield - bu/acre -	Average ---- % ----	
Progeny 5622 RR	Progeny Ag Products	5.6	25	186	9.7	95%	17.3
REV 57R21	Terral Seed, Inc.	5.7	23	168	12.1	119%	17.3
REV 56R21	Terral Seed, Inc.	5.6	21	153	13.8	135%	17.1
Progeny 4908 RR	Progeny Ag Products	4.9	21	157	10.8	106%	16.0
Progeny 5650 RR	Progeny Ag Products	5.6	22	164	8.3	82%	15.2
REV 49R22	Terral Seed, Inc.	4.9	16	118	12.7	124%	14.3
Progeny 5218 RR	Progeny Ag Products	5.2	14	102	14.5	142%	14.1
REV 48R22	Terral Seed, Inc.	4.8	15	112	9.1	89%	12.1
REV 48R21	Terral Seed, Inc.	4.8	11	83	9.9	97%	10.5
REV 47R22	Terral Seed, Inc.	4.7	8	56	10.8	106%	9.2
Progeny 4949 RR	Progeny Ag Products	4.9	8	62	8.3	82%	8.3
REV 44R22	Terral Seed, Inc.	4.4	7	48	7.6	74%	7.0
REV 48R10	Terral Seed, Inc.	4.8	8	61	5.8	57%	6.9
REV 45R10	Terral Seed, Inc.	4.5	4	28	5.2	51%	4.5
AG 4730	Asgrow	4.7			9.2	90%	
AG 4903	Asgrow	4.9			13.6	134%	
AG 5605	Asgrow	5.6			13.7	134%	
AG 5632	Asgrow	5.6			13.0	127%	
Progeny 4910 ²	Progeny Ag Products	4.9			15.1	148%	
Progeny 4911 RY	Progeny Ag Products	4.9			8.1	79%	
Progeny 4928 LL ³	Progeny Ag Products	4.9			7.0	69%	
Progeny 5111 RY	Progeny Ag Products	5.1			14.5	143%	
Progeny 5160 LL ³	Progeny Ag Products	5.1			12.3	121%	
Progeny 5191 ²	Progeny Ag Products	5.1			11.3	111%	
Progeny 5210 RY	Progeny Ag Products	5.2			9.5	93%	
Progeny 5261 LL ³	Progeny Ag Products	5.2			10.6	104%	
Progeny 5321 RY	Progeny Ag Products	5.3	Varieties not tested in 2010		7.3	72%	
Progeny 5460 LL ³	Progeny Ag Products	5.4			7.6	74%	
Progeny 5610 RY	Progeny Ag Products	5.6			14.6	143%	
Progeny 5655 RY	Progeny Ag Products	5.6			10.1	99%	
Progeny 5770 ²	Progeny Ag Products	5.7			8.1	80%	
REV 47R53	Terral Seed, Inc.	4.7			8.9	88%	
REV 48R33	Terral Seed, Inc.	4.8			13.7	134%	
REV 46R73	Terral Seed, Inc.	4.6			5.2	51%	
REV 49R23	Terral Seed, Inc.	4.9			11.6	113%	
REV 49R43	Terral Seed, Inc.	4.9			8.5	83%	
REV 51R53	Terral Seed, Inc.	5.1			9.4	92%	
REV 55R21	Terral Seed, Inc.	5.5			9.1	89%	
REV 56R63	Terral Seed, Inc.	5.6			8.2	80%	
LSD (P=0.05)			7		2.8		

²Conventional variety³Liberty Link soybean variety