



2011 Soybean Variety Performance Tests - Miami



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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 test 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

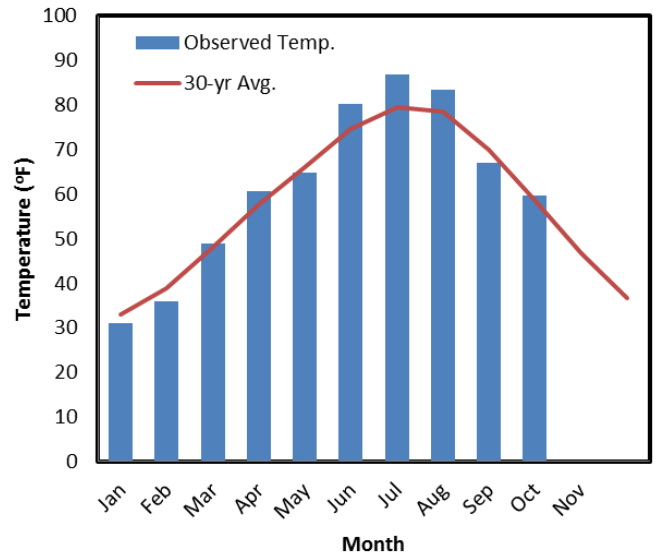
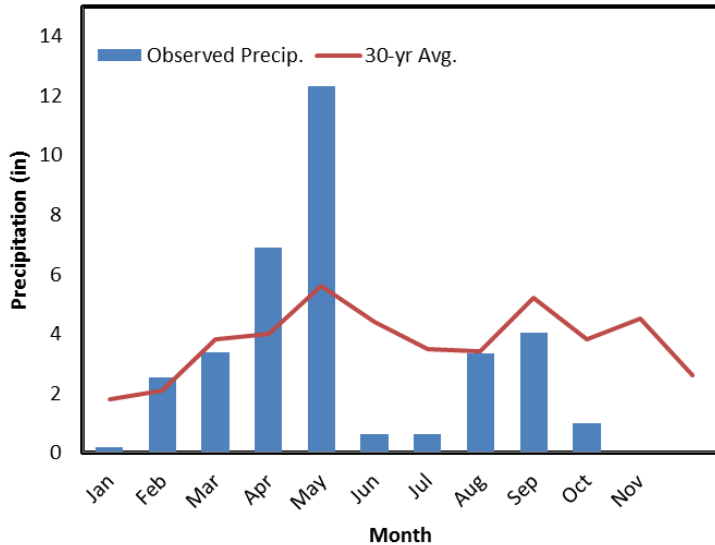
www.oilseeds.okstate.edu/

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		
		Progeny 5111 RY	5.1	All	RR2		
		Progeny 5210 RY	5.2	All	RR2	3, 14	I
		Progeny 5321 RY	5.3	All	RR2		
		Progeny 5655 RY	5.6	All	RR2		
		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		

Miami



Location Summary:

An early-season and full season test was planted at Miami in 2011. The test was planted into a conventional tilled seedbed. 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 while the yield potential of the early-season test was already lost. The average yields were 15 and 19 bu/ac for the early and full-season test, respectively, when averaged across all varieties. The average yield was consistent with what area producers observed in 2011. In the full-season test some shatter was observed in the earlier maturing varieties than may have decreased yield. This increase in shattering of earlier maturing varieties was most likely due to the harvest date being past optimum; take this into account when viewing data.

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

Soil Properties	Result	Cultural Practice	Information
pH	7.3	Planting Date	4/14 and 6/3/2011 ¹
Soil Test P Index	20	Seeding Rate (seeds/foot of row)	8
Soil Test K Index	126	Seeding Depth (in)	1
		Irrigation	none
		Harvest Date	10/7 and 11/1/2011
		Soil Moisture at Planting	good

¹ Planting date for early-season test and full-season test, respectively.

Table 3. Early-season glyphosate resistant soybean production variety trial near Miami, OK 2011.

Variety	Company	Maturity Group	Height - in -	Shattering ¹ Score	Lodging ¹ Score	Seed/Lb	Yield - bu/acre -	Percent Yield of Trial Average -- % --
AG 4903	Asgrow	4.9	25	0	0	3350	20.4	136%
AG 3830	Asgrow	3.8	20	1	0	3900	18.2	121%
S49-A5 Brand	Syngenta	4.9	25	1	0	4200	15.0	100%
S47-R3 Brand	Syngenta	4.7	25	0	0	4350	13.4	89%
S46-A1 Brand	Syngenta	4.6	23	1	0	3900	12.9	86%
AG 4730	Asgrow	4.7	20	2	0	4050	9.8	65%
LSD (P=0.05)							2.3	

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

Table 4. Full-season soybean production variety trial near Miami, OK 2011.

Variety	Company	Maturity Group	Height - in -	Shattering ¹ Score	Lodging ¹ Score	Seed/Lb	Yield - bu/acre -	Percent Yield of Trial Average
								-- % --
REV 56R63	Terral Seed, Inc.	5.6	28	1	0	2800	28.7	150%
REV 55R21	Terral Seed, Inc.	5.5	20	0	0	3100	25.6	134%
Progeny 5261 LL ³	Progeny Ag Products	5.2	24	1	0	3050	24.8	129%
Progeny 5111 RY	Progeny Ag Products	5.1	25	0	0	2850	23.4	122%
Progeny 5770 ²	Progeny Ag Products	5.7	25	1	0	2700	23.3	121%
Progeny 5650 RR	Progeny Ag Products	5.6	27	0	0	3450	23.0	120%
Progeny 5610 RY	Progeny Ag Products	5.6	25	1	0	2750	22.4	117%
Progeny 5622 RR	Progeny Ag Products	5.6	27	0	0	3000	22.2	116%
REV 57R21	Terral Seed, Inc.	5.7	30	0	0	3250	22.2	115%
AG 5605	Asgrow	5.6	23	0	0	3350	21.5	112%
Progeny 5655 RY	Progeny Ag Products	5.6	25	0	0	2900	21.4	112%
AG 5632	Asgrow	5.6	23	0	0	3600	21.3	111%
REV 56R21	Terral Seed, Inc.	5.6	24	0	0	3500	21.1	110%
Progeny 5160 LL ³	Progeny Ag Products	5.1	18	1	0	3150	21.1	110%
AG 4903	Asgrow	4.9	24	1	0	3100	20.8	108%
REV 49R22	Terral Seed, Inc.	4.9	28	2	0	2950	20.7	108%
REV 51R53	Terral Seed, Inc.	5.1	24	1	0	2700	20.6	108%
Progeny 5191 ²	Progeny Ag Products	5.1	23	1	0	2950	20.6	107%
REV 49R23	Terral Seed, Inc.	4.9	29	1	0	3800	19.7	102%
Progeny 4911 RY	Progeny Ag Products	4.9	29	1	0	3150	19.5	102%
Progeny 4908 RR	Progeny Ag Products	4.9	23	1	0	2850	19.1	100%
REV 48R21	Terral Seed, Inc.	4.8	29	2	0	3100	19.1	99%
Progeny 4928 LL ³	Progeny Ag Products	4.9	22	2	0	3200	18.6	97%
Progeny 5321 RY	Progeny Ag Products	5.3	28	0	0	3250	18.6	97%
AG 4730	Asgrow	4.7	22	0	0	2600	18.2	95%
Progeny 4910 ²	Progeny Ag Products	4.9	29	0	0	3000	18.0	94%
Progeny 5218 RR	Progeny Ag Products	5.2	23	1	0	2900	17.9	93%
Progeny 5460 LL ³	Progeny Ag Products	5.4	26	2	0	3150	17.8	93%
Progeny 4949 RR	Progeny Ag Products	4.9	27	1	0	2800	17.3	90%
REV 47R22	Terral Seed, Inc.	4.7	28	3	0	3050	17.2	89%
Progeny 5210 RY	Progeny Ag Products	5.2	24	0	0	2800	16.7	87%
REV 48R33	Terral Seed, Inc.	4.8	32	1	0	2800	16.5	86%
REV 47R53	Terral Seed, Inc.	4.7	25	2	0	2950	15.0	78%
REV 48R10	Terral Seed, Inc.	4.8	28	1	0	3200	14.6	76%
REV 44R22	Terral Seed, Inc.	4.4	26	3	0	2900	13.7	71%
REV 45R10	Terral Seed, Inc.	4.5	25	2	0	3250	13.0	68%
REV 49R43	Terral Seed, Inc.	4.9	25	2	0	3400	12.9	67%
REV 48R22	Terral Seed, Inc.	4.8	27	3	0	3050	11.5	60%
REV 496R73	Terral Seed, Inc.	4.6	27	2	0	3300	9.1	47%
LSD (P=0.05)							2.6	

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

²Conventional variety

³Liberty Link soybean variety