



2011 Soybean Variety Performance Tests – Enid/Garfield County



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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

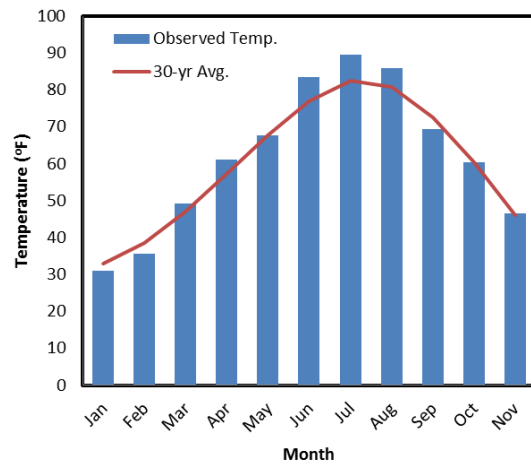
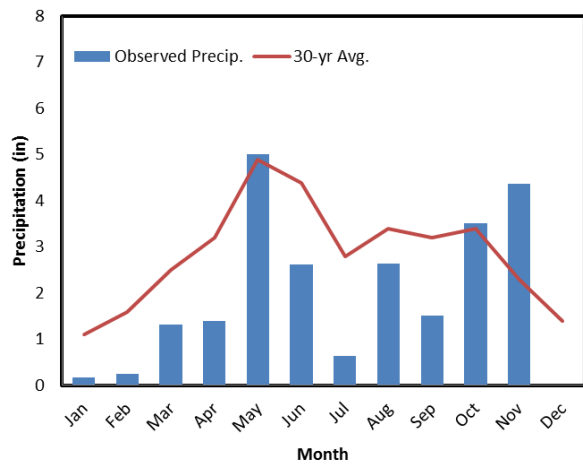
www.oilseeds.okstate.edu/

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 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 | |
| Ohlde Seed Farms, Inc. 1577 4th Rd. Palmer, KS 66962 http://ohldeseed.com/index.html | 785-692-4555 | O-4595 | 4.4 | | RR | | |
| | | O-4880 | 4.8 | | RR,STS | | |
| | | X471 | 4.7 | | RR | | |
| | | X471A | 4.7 | | RR | | |
| University of Arkansas 115 Plant Science Bldg Fayetteville, AR 72701 | 479-575-2230 | UA4910 | 4.9 | | CONV | | |
| | | Ozark | 5.2 | | CONV | | |
| | | Osage | 5.6 | | CONV | | |
| 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 | | |
| Terral Seed, Inc. PO Box 826 Lake Providence, LA 71254 http://www.terraseed.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 496R73 | 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 | | | | |

Enid



Location Summary:

A full season test was planted after wheat near Enid, OK in 2011. This trial was planted no-till following wheat harvest. Given the weather conditions during the growing season yields were excellent for this location. The average yield was 15 bu/ac when averaged across all varieties.

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

| Soil Properties | Result | Cultural Practice | Information |
|-------------------|-----------------|----------------------------------|-------------------|
| pH | ¹ na | Planting Date | June 22, 2011 |
| Soil Test P Index | na | Seeding Rate (seeds/foot of row) | 8 |
| Soil Test K Index | na | Seeding Depth (in) | 1.5 |
| | | Irrigation | none |
| Previous crop | Wheat | Harvest Dates | November 18, 2011 |
| | | Soil Moisture at Planting | marginal |

¹Not available.

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

| Variety | Company | Maturity | Height | Shattering ¹ | Lodging ¹ | Seed/Lb | Yield | Percent |
|------------------------------|-----------------------|----------|--------|-------------------------|----------------------|---------|-------------|----------|
| | | Group | | Score | Score | | | Yield of |
| | | | - in - | | | | - bu/acre - | Trial |
| | | | | | | | | Average |
| | | | | | | | | -- % -- |
| REV 49R23 | Terral Seed, Inc. | 4.9 | 22 | 0 | 0 | 3900 | 20 | 132% |
| Progeny 5160 LL ³ | Progeny Ag Products | 5.1 | 17 | 0 | 0 | 2900 | 19 | 128% |
| Progeny 5622 RR | Progeny Ag Products | 5.6 | 15 | 0 | 0 | 3000 | 19 | 124% |
| Progeny 5650 RR | Progeny Ag Products | 5.6 | 21 | 0 | 0 | 3500 | 19 | 124% |
| X471 | Ohlde Seed Farms, Inc | 4.7 | 19 | 0 | 0 | 3150 | 18 | 120% |
| Ozark ² | Univ. of Arkansas | 5.2 | 18 | 0 | 0 | 2800 | 18 | 118% |
| REV 48R33 | Terral Seed, Inc. | 4.8 | 19 | 0 | 0 | 2850 | 17 | 115% |
| Progeny 5655 RY | Progeny Ag Products | 5.6 | 18 | 0 | 0 | 3050 | 17 | 112% |
| REV 56R21 | Terral Seed, Inc. | 5.6 | 21 | 0 | 0 | 3500 | 17 | 110% |
| Progeny 5210 RY | Progeny Ag Products | 5.2 | 14 | 0 | 0 | 3250 | 17 | 110% |
| AG 4730 | Asgrow | 4.7 | 19 | 0 | 0 | 3200 | 17 | 110% |
| REV 56R63 | Terral Seed, Inc. | 5.6 | 18 | 0 | 0 | 2950 | 17 | 109% |
| REV 49R22 | Terral Seed, Inc. | 4.9 | 20 | 0 | 0 | 3050 | 17 | 109% |
| AG 5632 | Asgrow | 5.6 | 18 | 0 | 0 | 3100 | 16 | 107% |
| Progeny 4928 LL ³ | Progeny Ag Products | 4.9 | 16 | 0 | 0 | 3000 | 16 | 106% |
| Progeny 5261 LL ³ | Progeny Ag Products | 5.2 | 16 | 0 | 0 | 3250 | 16 | 106% |
| X471A | Ohlde Seed Farms, Inc | 4.7 | 20 | 0 | 0 | 3050 | 16 | 106% |
| Progeny 4911 RY | Progeny Ag Products | 4.9 | 19 | 0 | 0 | 3400 | 16 | 106% |
| Progeny 5191 ² | Progeny Ag Products | 5.1 | 14 | 0 | 0 | 3600 | 16 | 105% |
| REV 51R53 | Terral Seed, Inc. | 5.1 | 17 | 0 | 0 | 2850 | 16 | 105% |
| AG 4903 | Asgrow | 4.9 | 14 | 0 | 0 | 3400 | 16 | 104% |
| Progeny 5610 RY | Progeny Ag Products | 5.6 | 18 | 0 | 0 | 2800 | 16 | 103% |
| REV 55R21 | Terral Seed, Inc. | 5.5 | 20 | 0 | 0 | 3000 | 15 | 102% |
| Progeny 5218 RR | Progeny Ag Products | 5.2 | 17 | 0 | 0 | 2900 | 15 | 102% |
| REV 45R10 | Terral Seed, Inc. | 4.5 | 16 | 0 | 0 | 3350 | 15 | 100% |
| O-4880 | Ohlde Seed Farms, Inc | 4.8 | 21 | 0 | 0 | 2900 | 15 | 97% |
| Progeny 5321 RY | Progeny Ag Products | 5.3 | 14 | 0 | 0 | 3050 | 15 | 97% |
| REV 48R10 | Terral Seed, Inc. | 4.8 | 15 | 0 | 0 | 3150 | 14 | 93% |
| REV 46R73 | Terral Seed, Inc. | 4.6 | 17 | 0 | 0 | 2850 | 14 | 92% |
| REV 47R22 | Terral Seed, Inc. | 4.7 | 17 | 0 | 0 | 3100 | 14 | 91% |
| Progeny 5770 ² | Progeny Ag Products | 5.7 | 15 | 0 | 0 | 2850 | 14 | 91% |
| Progeny 4908 RR | Progeny Ag Products | 4.9 | 15 | 0 | 0 | 2850 | 14 | 90% |
| REV 48R22 | Terral Seed, Inc. | 4.8 | 19 | 0 | 0 | 3000 | 14 | 90% |
| REV 57R21 | Terral Seed, Inc. | 5.7 | 18 | 0 | 0 | 2900 | 13 | 87% |
| Progeny 4910 ² | Progeny Ag Products | 4.9 | 10 | 0 | 0 | 2800 | 13 | 86% |
| Progeny 5111 RY | Progeny Ag Products | 5.1 | 14 | 0 | 0 | 3400 | 13 | 86% |
| REV 44R22 | Terral Seed, Inc. | 4.4 | 16 | 0 | 0 | 2800 | 13 | 85% |
| Progeny 5460 LL ³ | Progeny Ag Products | 5.4 | 18 | 0 | 0 | 3200 | 13 | 85% |
| Progeny 4949 RR | Progeny Ag Products | 4.9 | 15 | 0 | 0 | 2950 | 13 | 85% |
| REV 47R53 | Terral Seed, Inc. | 4.7 | 13 | 0 | 0 | 2850 | 13 | 84% |
| REV 49R43 | Terral Seed, Inc. | 4.9 | 20 | 0 | 0 | 2900 | 13 | 84% |
| O-4595 | Ohlde Seed Farms, Inc | 4.4 | 19 | 0 | 0 | 2800 | 12 | 82% |
| REV 48R21 | Terral Seed, Inc. | 4.8 | 24 | 0 | 0 | 2900 | 12 | 82% |

| | | | | | | | | |
|----------------------|-------------------|-----|----|---|---|------|----|-----|
| AG 5605 | Asgrow | 5.6 | 14 | 0 | 0 | 3150 | 12 | 80% |
| Osage ² | Univ. of Arkansas | 5.6 | 13 | 0 | 0 | 3000 | 12 | 79% |
| UA 4910 ² | Univ. of Arkansas | 4.9 | 16 | 0 | 0 | 2950 | 12 | 78% |
| LSD (P=0.05) | | | | | | | 4 | |

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

²Conventional variety

³Liberty Link soybean variety

