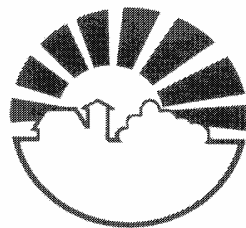


**Bulletin Number 2004-B17537  
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**SOYBEAN PERFORMANCE  
IN INDIANA, 2004**



**Department of Agronomy  
Agricultural Research Programs  
Purdue University  
West Lafayette, Indiana**

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Contents

Introduction ..... 3

Performance Trial Methodology ..... 3

    Location of Trials ..... 3

    Methods used in the Trials ..... 4

    State-wide Weather and Harvest Summary ..... 5

Discussion ..... 7

Sources of Seed ..... 13

Soybean Performance Tables 1 through 20 ..... 16

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Authors

K. M. Day,  
Senior Research Agronomist

W. P. Lorton, Technician

Department of Agronomy

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# SOYBEAN PERFORMANCE IN INDIANA, 2004

## INTRODUCTION

Soybeans are evaluated annually at several locations in Indiana. These trials are conducted according to the policies and procedures of the Indiana Agricultural Research Programs at Purdue University. In this bulletin, results of the 2004 performance trials are given, as well as multiple year averages for those entries tested in the past three test years. Data for experimental entries are not included.

The first soybean trials, in this program, were conducted in 1969 and included both public varieties and private labeled soybeans. There were 20 entries in the first trial. Beginning in 2003 no public soybean varieties were included in the trial.

This information is presented under authority granted Indiana Agricultural Research Programs to conduct performance trials, including interpretation of data to the public, and does not imply endorsement or recommendation by Purdue University. Also any soybean not included in this bulletin does not imply criticism by Purdue University. This bulletin is protected by copyright by the Purdue Research Foundation. Permission is granted to reproduce the tables only in their entirety provided that this bulletin, "Soybean Performance in Indiana", is referenced and the data are not edited, manipulated or reinterpreted. The table number, title, heading and footnotes 1 and 2 must be included. Permission is also granted to reproduce a maturity group sub-table provided that the complete sub-table, table heading and footnotes are included with the sub-table. A conspicuous disclaimer which states "endorsement or recommendation by Purdue University is not implied" must accompany any information reproduced from this bulletin.

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<http://www.agry.purdue.edu/ext/variety.htm>

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Performance results for private entries are presented. Private entries, entered voluntarily by the owner, were accepted in the trial after meeting requirements for eligibility and payment of a testing

fee. No verification has been made that the seed, or the quality of the seed, entered in this trial is the same as seed offered for sale to the public.

Plans and rules for entering this trial are available, upon request, to anyone at any time. Persons wishing to enter the soybean performance trial should contact the author by February 1.

**K. M. Day**  
**ACRE - Vartest Building**  
**4540 U.S. 52 West**  
**West Lafayette, IN 47906**

e-mail address: [kday@purdue.edu](mailto:kday@purdue.edu)

Telephone: 765-583-1406

Call for the FAX number

## PERFORMANCE TRIAL METHODOLOGY

### Location of Trials

This section contains information on locations and procedures used in conducting the trials.

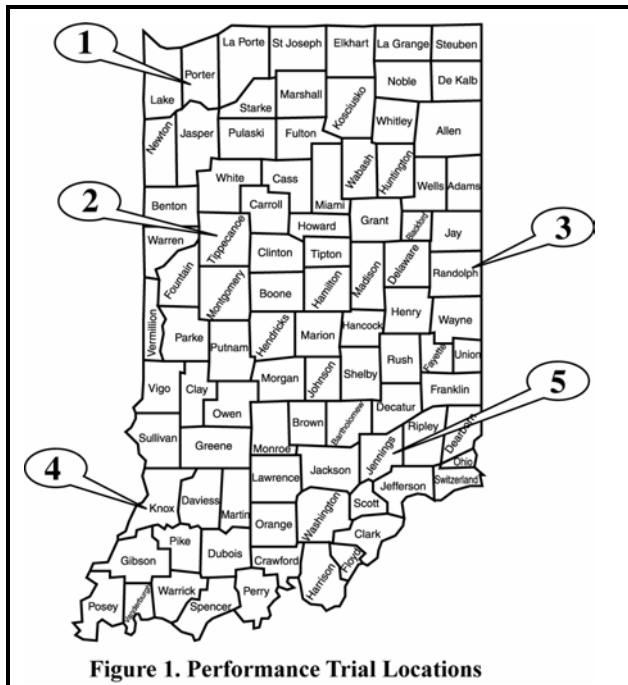
In 2004, trials were planted at five locations (see Figure 1). The locations, numbered from north to south are:

**Location 1.** Porter County at the Pinney-Purdue Agricultural Center near Wanatah, on Runnymede loam, a dark gray depressional soil underlain by sandy substrata.

**Location 2.** Tippecanoe County, near Lafayette, at the Purdue University Agronomy Center for Research and Education, on Drummer silty clay loam, a very dark gray or black, poorly drained depressional soil. Drummer was formerly classified as Chalmers.

**Location 3.** Randolph County at the Davis-Purdue Agricultural Center near Farmland, on Blount silty clay loam, a dark grayish-brown, somewhat poorly drained soil.

**Location 4.** Knox County at the Southwest-Purdue Agricultural Center near Vincennes, on Ade loamy fine sand, a very dark gray, gently sloping, somewhat excessively drained soil. Ade soil has low available water capacity and rapid permeability. Organic matter is relatively high and surface runoff is slow.



**Figure 1. Performance Trial Locations**

**Location 5.** Jennings County at the Southeast-Purdue Agricultural Center near Butlerville, on Avonburg silt loam, a light grayish, nearly level, somewhat poorly drained soil, with fragipan in the sub-soil.

**Methods Used in the Trials**

In 2004, Conventional soybean maturity groups were placed together in the same trial at locations 2 through 5. Roundup Ready® soybeans were grouped by maturity, and planted in the respective early or late maturity group. (Roundup Ready® is a trademark of Monsanto Company.) High-germinating seed (usually 90 percent or better) was used in the trial. The soybean plots were planted in a randomized complete block design with four blocks at each location. Anticipated maturity differences between adjacent plots were restricted to 10 days or less.

**Planting Equipment Used in the Trials.** Trials at all five locations, were planted using an Almaco grain drill. The Almaco grain drill was designed and custom built for research plot work. The drill is equipped with 10 John Deere openers set on 7.5 inch row spacing, and is equipped with spring-loaded press wheels. The drill dropped a pre-counted number of seeds in each 33 linear feet of row. For yield calculations, plot width was calculated as 75 inches wide.

In all trials, the planting rate for proprietary entries, selected by the owner, varied from 3.0 live seeds per linear foot of row (209,088 live seeds per acre) to 4.0 live seeds per linear foot of row (278,784 live seeds per acre). Assuming 90 percent emergence, this should produce stands from 188,179 to 250,905 plants per acre.

Conventional farm equipment was used for seedbed preparation. Conventional tillage seedbeds, prepared for Conventional and Roundup Ready® soybeans, were clean-tilled prior to planting. All conventional tillage seedbeds, for Conventional soybeans only, were treated with pre-plant herbicides, and the Conventional soybean trials at locations , 4 and 5 were sprayed with post emergence herbicides. Season long weed control was adequate. Hand-weeding was used to remove weeds that emerged late in the season.

All Roundup Ready® soybean trials were sprayed once with Roundup Ultra® just prior to canopy closure, except for the trials at location 3 which were sprayed twice. (Roundup Ultra® is a trademark of Monsanto Company.) Season long weed control was adequate, and hand-weeding was used to remove weeds that emerged late in the season.

Plots in all of the trials were end-trimmed prior to harvest, and all rows were harvested for yield. Observations such as plant height, lodging and maturity were taken from the center rows.

**Yield data.** All of the trials reported in this bulletin were harvested with an Almaco combine. The combine is equipped with a modified John Deere 900 series head with a floating cutter bar. Grain yields were weighed, and moisture tested automatically, on the combine, using a Seed Spector II and a Psion Workabout (computer). The Seed Spector II equipment was calibrated using a Motomco moisture meter and Chantillon scales, and the calibrations were checked throughout the harvest season. It should be pointed out that this equipment is not the same as equipment used to meet official grain grading standards, but is believed to be suitable for field plot work. All yields were adjusted to 13 percent moisture and are reported as bushels per acre.

**Plant height**, taken at maturity, is the average length (to the nearest inch) from the soil surface to the tip of the main stem.

**Lodging** is rated at maturity according to the following scores:

- 1 - Almost all plants erect.
- 2 - All plants leaning slightly or a few plants down.
- 3 - All plants leaning moderately (45 degrees) or 25-50 percent of plants down but still harvestable with conventional equipment.
- 4 - All plants leaning considerably or 50-80 percent of plants down and difficult to harvest with conventional equipment.
- 5 - Almost all of the plants down, and harvest losses would occur with conventional equipment.

**Maturity date** is when more than 90 percent of the pods are ripe (tan, brown or gray); and days (to maturity) are the number of days from planting to maturity. Delayed leaf drop and green stems are not considered when assigning maturity. About a week of good drying weather may be needed before soybeans are ready to harvest after reaching maturity. Soybeans should mature about two weeks before the average date of the first killing frost, which ranges from approximately October 10 in northern Indiana to October 25 in southern Indiana.

### Statewide Weather and Harvest Summary

Detailed weather information can be obtained from the Agronomy Department, Purdue Applied Meteorology Group, on the web at:

<http://shadow.agry.purdue.edu>

Information contained in this section is gleaned from weekly reports, "Indiana Crop & Weather Report", from the Indiana Agricultural Statistician at Purdue University.

The first Indiana Crop and Weather report for the 2004 growing season, issued for the week ending April 4, 2004, reported soil moisture ratings (in percent) for topsoil as, very short 0, short 1, adequate 54, and surplus 45. Subsoil moisture ratings were, very short 2, short 3, adequate 68, and surplus 27 percent. The crop report for April 25 reported 8 percent of the Indiana soybean crop was planted, compared with 3 percent for average.

By May 2, twenty-three percent of the soybean crop was planted, which was 5 days ahead of average. On May 9, planting was 8 days ahead of normal and half the crop was planted. On May 16, planting was a week behind the record pace set in 2001, but 10 days ahead of average, and the crop was 69 percent planted. Rain briefly slowed soybean planting in mid-May, but by the twenty-third of the month, the crop was 78 percent planted compared to 60 percent for average, and 61 percent of the crop had emerged compared to 40 percent for average. At the end of May, topsoil moisture was rated 47 percent adequate and 52 percent surplus. Subsoil was 5 percent short, 65 percent adequate and 29 percent surplus. Wet weather began the last of May and continued through most of June. Flooding, ponding water and saturated soils damaged crop stands in many areas in the state.

By June 1, the crop was 89 percent planted compared to 85 percent for average. Heavy rain, in mid-June, prevented the rapid completion of soybean planting. At the end of the month, most of the planting was completed compared to 98 percent for the five-year average. At the end of June, 98 percent of the crop had emerged compared to 95 percent for the five-year average. Ten percent of the crop was blooming. The crop was rated 67 percent good to excellent. A year earlier soybeans were rated 54 percent good to excellent. Replanting flooded areas began the last week of June along with planting double crop soybeans, and continued into mid-July.

The July 4 report rated topsoil moisture as 1 percent very short, 20 percent short, 73 percent adequate and 6 percent surplus. Subsoil moisture was 0 percent very short, 12 percent short, 80 percent adequate and 8 percent surplus. By July 4, virtually all soybeans had emerged and 26 percent were blooming. A week later, 8 percent of the soybeans were setting pods compared to 5 percent for average. The soybean condition was rated 69 percent good to excellent, compared to 51 percent last year. The July 18 report rated soil moisture 76 percent adequate and 9 percent surplus. Soybean condition rating was 69 percent good to excellent compared to 49 percent the previous year. Twenty-two percent of the soybeans were setting pods compared to 15 percent for average. Moisture remained adequate during July with topsoil ratings 79 percent adequate and 7 percent surplus. The soybean condition rating remained around 72 percent good to excellent. Thirty-six percent were setting pods, compared to 27 percent for average. Cool, dry weather in July continued into August and provided beneficial conditions for soybean growth and development.

Prevailing cool dry weather,, reported August 1, remained during most of the month. By August 8, seventy-two percent of the plants were setting pods compared to 62 percent for average. The crop condition was rated 75 percent good to excellent compared to 59 percent last year. Topsoil moisture ratings were 81 percent adequate and 5 percent surplus. On August 29, twelve percent of the crop were shedding leaves, compared to 10 percent for average. The crop condition was rated 72 percent good to excellent compared to 56 percent last year. Top soil moisture was rated 75 percent adequate and 20 percent surplus.

On September 5, soybean harvest was reported underway in a few fields. Twenty-nine percent were shedding leaves compared to 23 percent for average. The crop condition was rated 72 percent good to excellent compared to 60 percent last year. Soil moisture was rated 79 percent adequate and 14 percent surplus. By September 12, twenty-five percent of the soybeans were mature compared to 12 percent for average. The soybean condition was rated 72 percent good to excellent compared to 59 percent the previous year. The third week of September, 57 percent of the soybeans were shedding leaves, 22 percent of the crop was mature and 4 percent was harvested. Soil moisture was 80 percent adequate and 6 percent surplus. At the end of September, the soybean crop was 69 percent mature compared to 54 percent for average. Harvest was 9 to 10 days ahead of average, and thirty-four percent of the soybean acreage was harvested compared with 14 percent for average. Grain moisture in the harvested soybeans was averaging about 11 percent.

Soybean harvesting made good progress in October and by mid-month, 82 percent of the crop was harvested compared to 67 percent for average. By the end of the month, virtually all of the crop was mature, and 90 percent of the crop was harvested. Only the replanted and double crop soybeans were not mature when the first frosts arrived at the beginning of October.

The November 8 report indicated 93 percent of the soybean crop was harvested, compared to 90 percent for average.

In summary, soybean planting got off to an early start and progressed at a faster than normal pace. Planting interruptions were due to widespread rains. Many fields were flooded and required replanting. Replanting began the last of June and continued into mid-July.

The summer was cooler than normal with few official daytime temperatures reaching 90° F. Nights were also cool, which contributed to shorter than normal plants. The unusual thing about the 2004 growing season, beyond cool temperatures, was that all of the crop reports, during the growing season, reported topsoil moisture to be generally adequate to surplus. This is especially important during August when most of the pod filling takes place. Beneficial topsoil moisture remained until mid-September when soils dried rapidly. From late September to mid-October topsoils were rated very short to short. The October 10 report rated topsoil moisture very short 33 percent, short 43 percent and adequate 23 percent. This provided for rapid drying of the grain and early harvesting of soybeans with moisture content below 13 percent.

On November 19, 2004 the Indiana Agriculture Report presented the following information:

"Based on conditions November 1, ..... Soybean production is forecast at 287.8 million bushels, up 4 percent from the October 2004 forecast, and up 41 percent from the 204.1 million bushels produced in 2003. The expected yield of 53 bushels per acre is 15 bushels above last year's yield of 38 bushels per acre. If realized, this would be 4 bushels above the previous record of 49 bushels established back in 2001. The acreage expected to be harvested for beans, at 5.43 million acres, is 1 percent higher than in 2003, but down slightly from the June estimate. .... U.S. soybean production is forecast at 3.15 billion bushels, up 1 percent from October and 28 percent above 2003. If realized, this would be the largest U.S. soybean crop on record. Based on November 1 conditions, yields are expected to average a record high 42.6 bushels per acre, up 0.6 bushel from October and 8.7 bushels above last year. Producers in the corn belt, Michigan, Pennsylvania, Maryland and the Carolinas are realizing higher yields than expected last month, while yield prospects decreased as harvest progressed in North Dakota and Minnesota. Area for harvest in the U.S. is forecast at 74.0 million acres."

## DISCUSSION

It is not possible to absolutely determine or predict the response of plants to the environment. The results of every field trial conducted are influenced by the treatment and by the experimental error. In these trials, the treatment is the soybean entry (variety, brand, or blend) planted in the trial. Experimental error is a composite term to indicate everything that could not be controlled by the person performing the trial. Experimental error is not intended to include human error. These trials are conducted on the assumption that all the entries in the trial are equal until evidence is obtained that they are not equal. In order to obtain this evidence it is necessary to determine whether the trial results were influenced most by the entries or by experimental error. To do this an analysis of variance is performed and the relationship of the yielding ability of the entries to experimental error is determined. The analysis of soybean performance trials show that maturity relationships are very predictable whereas yield relationships are the most difficult to predict.

Probability levels have been established to assess the validity of a trial. Generally trials should be significant at the 10 percent probability level. This means 1 trial in 10 could be a fluke and not be detected. In this bulletin, all of the 2004 (single location) trials are significant at the 10 percent probability level, except for the Conventional Soybean trial at Location 2, reported in Table 3.

The analysis of variance makes it possible to compute a coefficient of variability (C.V.). The coefficient of variability is a relative term. It is the ratio of the standard deviation to the grand mean of the trial, expressed as a percent. On the western side of Indiana a normal C.V. for soybeans is 5 to 10 percent; whereas on the eastern side it is 10 to 15 percent. Whenever the C.V. is larger than normal for a trial location, it indicates the precision of the trial was below normal. When yields are high and the experimental error is small, the C.V. will be small.

Single-year trials, in this report, generally require yield differences of 7 to 10 bushels for (statistical) significance. This year (2004) for single locations, BLSD (k=100) yield differences for significance, ranged from 3.5 to 15.8 bushels per acre.

A test of significance must be performed to determine if the yield difference between two entries is due to experimental error or due to the yielding ability of the entries. The single-year trial only reflects what happened one year at one location, and is generally not

adequate for predicting how soybeans may perform in the future. Tables 1 through 14 report multiple-year data as well as single-year results for a single test location.

Data from multiple years, and in some instances multiple locations, when combined and analyzed, provide a superior estimate of how soybeans will perform in the future. This year (2004) entrants were requested to enter each entry in at least two locations. This generally provides much better data to evaluate soybean performance. Tables 15 through 20 provide all possible comparisons for soybeans tested in 2004, and where possible, multiple year data are presented.

Soybean data from any source must include years (preferably three), must be analyzed, and must have a test of significance before it has value as a basis for performance prediction.

An analysis of variance, which includes years, will show that years have a very strong influence on yields. Also, an analysis of variance that includes locations will show that locations also influence the performance of the entries in the trial.

Brief periods of favorable or unfavorable weather, when the plants are vulnerable to weather stress, can change the yield relationship among entries from year to year. Maturity relationships are photoperiod influenced and are much less affected by weather from year to year.

It is not always beneficial or appropriate to combine data across locations from these performance trials. The trials are far enough apart from north to south that entries in the trial may not be adapted to several locations. The trial environments from east to west are also very different, especially in regard to the presence and severity of Phytophthora rot. It is important to realize that locations may all provide similar trial results one year and produce quite different results the following year. This year (2004) data combinations were made, for all locations, for Conventional and Roundup Ready® soybeans.

Trial results are ranked by yield. The Waller-Duncan Bayesian k ratio t test is used for the test of significance. A k ratio of 100:1 was used in computing the Bayesian least significant difference (BLSD) for the test of significance. This ratio may be considered in a loose sense to take the place of the (LSD) 5% level of significance. The BLSD value may be used to make all possible pair-wise comparisons among the entries. Yield differences smaller than the BLSD value should be considered due to chance

(experimental error) and not due to superior performance.

An asterisk (\*) is included in the yield column in each sub-table. The asterisk denotes all yields in the sub-table which are not, statistically, significantly different from the top yield. Do not place undue emphasis on yield differences followed by an asterisk. The BLSD value must still be used to determine if the particular yields being compared are, statistically, significantly different.

**At Location 1**, no measurable precipitation was recorded during the first two weeks of April. During the last two weeks of the month rain totaled 0.82 of an inch, and was distributed in showers of less than half an inch. This was 2.79 inches below normal (1971 to 2000 average) precipitation. Temperatures were cool the first half of April, with the lowest temperature, 23° F, on April 5. Temperatures moderated by mid month, and the warmest April temperature, 88° F, was recorded on April 19.

May rain totaled 5.15 inches which was 1.44 inches above normal. Nineteen days in May received measurable precipitation. The heaviest rain (1.16 inches) came on May 10. The next large rain (1.12 inches) came on May 31, and the rest of the precipitation came in showers of less than three-fourths of an inch. Temperature for the month averaged 60.8°F, or 1.4° F warmer than the (1971 to 2000) long-term average. The first five days in May were cool with the lowest temperature, 26° F, recorded on May 3. Temperatures warmed rapidly and the warmest May temperature, 90° F, came on May 7. Otherwise, daily high temperatures ranged from 48° to 86° F and nightly lows ranged from 27° to 66° F. The soybean trials were planted May 4, in a firm moist seedbed. The May 4 planting was the optimum planting date in 2004. Three days after planting light rains began and continued, off and on, through May 25. Emergence was uniform and excellent, vigorous stands were established.

June rain totaled 3.58 inches, or 0.77 of an inch below normal. Precipitation was distributed among fourteen days of the month, with most of the rain coming in showers of less than an inch and a half. June temperature for the month averaged 66.7° F or 2.3° F cooler than the long-term average of 69.0° F. June 9 and 10 had temperatures of 92° and 90° F respectively. Otherwise, daily high temperatures ranged from 70° to 87° F, and nightly lows ranged from 43° to 69° F.

Twelve days in July received measurable precipitation. Rain totaled 3.71 inches, which was 0.36 of an inch below normal. The heaviest rain, 1.92 inches, came on July 22. The rest of the rain came in amounts of less than one inch. The average July temperature (70.0° F) was 2.3° F cooler than the long-term average of 72.3° F. July 23 had a high temperature of 91° F, which was the last 90° F temperature of the 2004 growing season at Location 1. Otherwise, daytime high temperatures ranged from 72° to 89° F. Nightly lows ranged from 47° to 69° F.

Rain distribution was nearly ideal during August. The first week received 1.27 inches, the second week 0.47, the third week 1.68, and the last ten days of the month, 4.38 inches. Total rain for the month was 7.8 inches, or 4.04 inches above normal. August temperature averaged 5.3° F cooler than normal. The normal (1971 to 2000) average temperature for August is 70.3° F. In 2004, August temperature averaged 65.1° F. The highest temperature, 88° F, came on August 3 and 4. Daytime highs ranged from 68° to 88° F, and nightly lows ranged from 42° to 66° F.

In September it rained twice, 0.19 of an inch on September 4, and 0.38 of an inch on September 16, for a total of 0.57 of an inch. This was 3.1 inches below normal. Soybeans dried as soon as they matured. September temperature averaged 64.3° F which was 1.1° F warmer than the long-term average of 63.2° F. Daytime temperatures ranging from 65° to 88° F, and nightly lows from 31° to 63° F.

All soybeans, in the Location 1 trials, were mature before the first frost which arrived on September 31, 2004, and were harvested on October 4, before the killing freezes, which occurred on October 5 and 6.

From May 1 through September 30, soybean trials at Location 1 received a total of 20.81 inches of rain. Normal (average) precipitation (1971-2000) for northwest Indiana, May 1 through September 30, is 19.56 inches. June, July and August were all cooler than normal. During June, and July, three days had daytime high temperatures of 90° to 92° F.

The highest yields ever produced in this soybean performance testing program, were produced at Location 1, in 2004 in the Roundup Ready® trials for Maturity Groups II and III. The yield samples were weighed and moisture tested using the procedures described on page 4, column 2. Due to the extremely high yields, the equipment and the data were carefully checked, and the yields are believed to be correct.

Several factors came together which contributed to high yields.

- Date of planting, rapid emergence and vigorous stands.
- Prevailing cool weather.
- Low disease level.
- Nearly ideal moisture, amounts and distribution, throughout the growing season, especially during the last half of August.

It is unlikely that this yield level will be repeated in the near future, but the yield potential of the entries is clearly documented in the 2004 trials at Location 1.

Performance data for Location 1, in 2004, are presented in Tables 1, and 2. Data combinations, which include data from Location 1, and data from other locations, are presented in Tables 16 and 17. Previous year's data, or data combined with other trial locations, may be more realistic for predicting future yield levels.

**At Location 2**, April precipitation totaled 1.33 inches, which was 2.24 inches below the (1971 to 2000) average of 3.57 inches. The first twenty days of the month had no measurable precipitation. Three days, April 21 (0.64 of an inch) April 23 (0.48), and April 25, (0.21) had rain. Average April temperature (52.9° F) was 2.8° F warmer than the 1971 to 2000 average of 50.1° F. Daily high temperatures ranged from 49° to 87° F, and nightly lows from 25° to 63° F.

May rain totaled 5.96 inches which was 1.61 inches above the long-term average of 4.35 inches. Fourteen days in May received measurable precipitation. The heaviest rain (1.17 inches) fell on May 1, and the rest of the precipitation was distributed throughout the month in showers of less than one inch. May temperatures averaged 65.3° F which was 3.9° F above the long-term average of 61.4° F. Daily high temperatures ranged from 50° to 92° F, and nightly lows ranged from 33° F to 69° F. The 92° F temperature was recorded on May 21.

Wet soil prevented plot planting, three weeks to a month later than the optimum planting date. The soybean trials were planted June 3 in a firm moist seedbed. Heavy rains came about a week after planting and the soybeans emerged in very wet soil. Uniform stands were established. June rain totaled 9.89 inches, with 8.51 inches coming over the course of 3 days; June 11 (3.19 inches), June 12 (4.22) and June 13 (1.10). Rain total, 9.89 inches for the month, was 5.65 inches more than the long-term June average of 4.24 inches. June daily high temperatures ranged

from 68° F (June 20) to 91° F (June 9). Nightly low temperature ranged from 45° F (June 4 and 20) to 69° F (June 15, 16, and 17). Average temperature for the month was 68.6° F, which was 1.9° F cooler than the long-term average of 70.5° F.

Scattered throughout the month, eleven July days had measurable precipitation. Rain came in showers of less than one inch and totaled 3.06 inches. This was 0.94 of an inch below the long-term average precipitation of 4.0 inches. July daytime high temperatures ranged from 70° F (July 26) to 90° F (July 23). Night temperatures ranged from 49° F (July 28) to 69° F (July 3 and 22). Fourteen nights had low temperatures between 50° and 60° F. Average temperature for the month was 70.9° F, which was 2.9° F cooler than the long-term average of 73.8° F.

August was cooler than July. August temperature averaged 67° F, which was 4.6° F cooler than the long-term average temperature of 71.6° F. Daily highs ranged from 65° F (August 13 and 21) to 89° F (August 4). Night temperature ranged from 44° (August 14) to 69° F (August 28). Nine nights had temperatures of 44° to 49° F, and twelve nights had temperatures of 52° to 58° F. Precipitation for the month totaled 3.85 inches, up 0.17 of an inch from the long-term average of 3.68 inches. The largest rain, (1.25 inches) came on August 4. Eleven more showers, each less than one inch, were scattered throughout the month. Eight of the eleven showers came the last half of August and totaled 2.87 inches. That rain was very timely and beneficial for pod filling.

Two rain showers were recorded in September; 0.14 of an inch (September 4) and 0.37 of an inch (September 7). Precipitation total for the month was 0.51 of an inch. That was 2.47 inches less than the long-term precipitation average of 2.98 inches for September. Temperatures were mild, with daytime highs ranging from 63° to 90° F, and nightly lows ranging from 33° to 65° F. The 90° F temperature was recorded on September 14. Average temperature for the month (65.7° F) varied only 0.7° F from the long-term average of 65.0° F.

The first two weeks of October were dry. October 9 received 0.02 of an inch of rain. During the first eleven days of the month daily high temperatures ranged from 62° to 76° F and nightly lows from 24° to 52° F. The Conventional soybean and the Roundup Ready® maturity group II trials were mature before the first killing frost, and were harvested October 5. The Roundup Ready® maturity group III trial was mature, except for a few of the latest maturing entries, when the first hard freeze (24° F) came on the night of

October 5. Freeze damage, if any, was minimal. The Roundup Ready® maturity group III trial was harvested October 11.

From June 1 through September 30, the soybean trials at Location 2 received a total of 17.31 inches of rain; 2.41 inches above normal. Normal (long-term average) precipitation (1971-2000) for the Purdue University Agronomy Center for Research and Education (ACRE), June 1 through September 30, is 14.90 inches. During June, July and August, rain totaled 16.8 inches, which was 4.88 inches above the long-term average (11.92 inches) for those three months. After the soybean plots emerged, only two days (July 23 and September 14) had temperature which reached 90° F. For the growing season June 1 through September 30, temperature averaged 68.05° F, which was 2.18° F cooler than the long-term average of 70.23° F.

In 2004, the Conventional soybean trial produced higher yields than in 2003, but the yield differences are not, statistically, significant at the 10 percent probability level. Plant height was taller and maturity dates 2 weeks later than in 2003. Results of the Conventional soybean trial are presented in Table 3. Location 2 data, combined with data from other trial locations, are presented in Table 15. Some of the data from Table 15 may provide better information for yield comparisons.

Results for the Roundup Ready® maturity group II soybean trial are presented in Table 4. Yields are higher, maturity dates a week and a half later, and plant heights taller than the 2003 trial results. The data should be useful for variety selection. Location 2 data, combined with data from multiple locations, are presented in Table 16. The combined location data is also useful for variety selection.

Results for the Roundup Ready® maturity group III soybean trial are presented in Table 5. Yields are higher, maturity dates approximately 2 weeks later, and plant heights taller than the 2003 trial. Yield results are, statistically, significantly different, and the data should be useful for yield comparisons. Location 2 data, combined with data from other trial locations, are presented in Table 17 and 18. The combined data should also be useful in making yield comparisons.

**At Location 3**, April rain came mostly during the last nine days of the month. The largest rain (1.07 inches) came on April 23. Rain total for the month was 1.65 inches, which was 1.85 inches below the long-term (1971-2000) average of 3.50 inches.

Temperatures were mild with the daily high ranging from 47° to 85° and averaging 63° F. Daily lows ranged from 23° to 63° and averaged 39.6° F. Average temperature for the month was 51.3° F, which was 2.4° F warmer than the long-term average of 48.9° F.

May rain totaled 5.43 inches, or 1.37 inches more than the long-term average of 4.06 inches. Seven showers came the first half of May, and provided 1.92 inches of moisture. Ten showers, the last half of May, produced 3.51 inches of rain. The largest rain (1.27 inches) came on May 28. May temperatures for the month averaged 65.7°, which was 5.5° warmer than the long-term average of 60.2° F. Daily highs ranged from 54° to 90° and averaged 75.4° F. The 90° F temperature was recorded on May 10. Nightly lows ranged from 34° to 71° and averaged 55.9° F. The soybean trials were planted May 7 in firm, moist seedbeds. The planting was near the optimum planting date. Emergence was normal, and uniform, vigorous stands were established.

June had 4.36 inches of rain, compared to the long-term average of 4.42 inches. The heaviest rain (1.58 inches) came on June 11. Most of the rain came in the middle of the month, in amounts of less than one inch. Daily high temperatures ranged from 65° to 89° and averaged 78° F. Nightly lows ranged from 44° to 71° and averaged 58.5° F. June temperature averaged 68.3° F, 1.1° cooler than the long-term average of 69.4° F.

July received 4.11 inches of rain, compared to the long-term average of 4.40 inches. Rain was distributed throughout the month, in showers of less than one inch. Daytime high temperatures ranged from 73° to 89° and averaged 80.3° F. Nightly lows ranged from 51° to 70° and averaged 60.3° F. Average temperature for the month, 70.6° F, was 2.3° cooler than the long-term average of 72.9° F.

August rain totaled 4.35 inches, 0.7 of an inch more than the long-term average of 3.65 inches. Rain distribution was very beneficial for soybean pod filling. Four showers, in amounts of less than two-thirds of an inch, came the first half of the month, and totaled 1.01 inches. The last half of the month received 3.34 inches of rain. The largest rain (1.92 inches) came on August 21. Five other showers, with amounts of less than an inch, also came during the last half of the month. Daytime high temperatures, for the month, ranged from 63° to 88° and averaged 78.2° F. Nightly lows ranged from 44° to 68° and averaged 56.4° F. Average August temperature was 67.3° F, which was 3.0° cooler than the long-term average of 70.3° F.

September had two rains; September 17, (0.08 of an inch), and September 29, (0.03), for a total of 0.11 of an inch. This was 2.91 inches below the long-term average of 3.02 inches. September daytime high temperatures ranged from 61° to 89° F, and averaged 79.5° F. Nightly lows ranged from 39° to 64° and averaged 52.2° F. Average temperature for the month was 65.9° F, which was 2.6° warmer than the long-term average of 63.3° F.

Soybeans matured rapidly and dried quickly during September. All of the soybean trials at Location 3 were harvested on September 30, ahead of the first frosts which arrived on October 3 and 5.

From May 1 through September 30, the soybean trials at Location 3 received 18.36 inches of rain, which was 1.19 inches below normal. Normal (average) precipitation (1971-2000) for Location 3, May 1 through September 30, is 19.55 inches. The soybean trials were planted May 7, and after the soybeans emerged, no 90° F temperature was recorded. The long-term average temperature, May 1 through September 30, for Location 3, is 67.2° F. This year (2004) temperature from May 1 through September 30 averaged 67.6° F, or 0.4° F, warmer than normal.

In 2004, all of the trials, at Location 3, produced high yields, were earlier maturing, and were similar in plant height compared to data from previous years. Precision was good in each of the trials, and the data should be useful for making yield comparisons. Data for Location 3 are presented in Tables 6, 7 and 8. Tables 15, 16, 17, 18 and 19 combine Location 3 data with data from other locations across Indiana.

**At location 4,** April rain came in eight showers of less than one-third of one inch each, and totaled 1.03 inches. Precipitation for April was 3.25 inches below the long-term average of 4.28 inches. Day temperatures ranged from 49° to 86° and averaged 68° F. Night temperatures ranged from 31° to 62° and averaged 46° F. Average temperature for April was 57.0° F, which was 3.5° warmer than the long-term average of 53.5° F.

The soybean trials were planted May 3 in firm, moist seedbeds. Emergence was rapid and vigorous stands were established. The first half of May received 8 showers, each in amounts of less than six-tenths of an inch, which provided 2.26 inches of rain. The last half of the month received 5.92 inches of rain. May 14, 15 and 16, received 1.31, 1.67 and 1.86 inches respectively. May rain totaled 8.18 inches, 3.05 inches above the long-term average of 5.13 inches. Daily high temperatures ranged from 59° to 89° and

averaged 80° F. Nightly lows ranged from 39° to 71° and averaged 60° F. For the month, temperatures averaged 69.9° F, which was 6.1° above the long-term average of 63.8° F.

The first 12 days of June had no precipitation. Ten days, June 13 through June 22, had six showers, each bringing less than one inch of rain. The last 8 days of June received no moisture. Rain totaled 2.23 inches, which was 1.82 inches below the long-term average of 4.05 inches. Highest daytime temperatures were on June 9 (91° F), 11 (90° F), 12 (93° F), 15 (91° F) and 16 (91° F). Daytime temperatures for the month ranged from 74° to 93° and averaged 84° F. Night temperatures ranged from 52° to 75° and averaged 63° F. Average temperature for the month was 73.3° F, which was 0.8° above the long-term average 72.5° F.

July had five days of 90° to 92° F temperatures. Daytime temperatures, for the month, ranged from 66° to 92° F, and averaged 84° F. Night temperatures ranged from 55° to 74° F, and averaged 65° F. Average temperature, for the month, was 74.6° F, which was 1.7° below the long-term average of 76.3° F. Rain for the month measured 7.36 inches, which was 2.69 inches above the long-term average of 4.67 inches. The first half of the month received nine showers, which produced a total of 4.74 inches of rain. The last half of the month received 6 showers, which produced a total of 2.62 inches of rain. The largest rain (1.41 inches) came on the last day of the month.

Four August days had daytime temperatures which ranged from 90° to 91° F. Daytime temperatures, for the month, ranged from 69° to 91° F, and averaged 83° F. Night temperatures ranged from 47° to 75° F, and averaged 60° F. Temperature, for the month, averaged 71.6° F, which was 2.7° cooler than the long-term average of 74.3° F. August rain totaled 3.55 inches, which was 0.17 of an inch less than the long-term average of 3.72 inches. Two showers, the first half of the month, produced 0.07 of an inch of rain. The last half of the month, 6 showers brought a total of 3.48 inches of rain.

September day temperatures ranged from 71° to 89° and averaged 83° F. Night temperatures ranged from 42° to 67° and averaged 57° F. Average temperature for the month, 70° F, was 3.0° warmer than the long-term average of 67° F. Three showers, during the first half of the month, provided all of the September moisture. September rain totaled 1.04 inches, which was 2.12 inches below the long-term average of 3.16 inches.

From May 1 through September 30, the soybean trials, at Location 4, received 22.36 inches of rain, which was 1.63 inches above the long-term average precipitation of 20.73 inches. Fourteen days, June 1 through August 30, had high temperatures ranging from 90° to 93° F.

The Roundup Ready® maturity group III trial was harvested September 21. The Conventional soybean, and Roundup Ready® maturity group IV trials, were harvested on September 28. All of the trials at Location 4, in 2004, produced higher yields than the trials conducted in 2003. Precision in the 2004 trials is good, and the data should be useful in making performance comparisons. Data from Location 4 are presented in Tables 9, 10 and 11. Tables 15, 17, 18, 19 and 20 combine data from Location 4, with data from other trial locations across Indiana.

**At Location 5**, weather data are taken daily for temperature and precipitation, and are used, in this report, for daily and monthly averages. The official weather station is located at North Vernon, Indiana, approximately five miles west of the soybean performance trial location. The official weather station data provide the long-term (1971 to 2000) averages, which are used in this report.

April day temperatures ranged from 40° to 84° F and averaged 65.4°F. Night temperatures ranged from 28° to 64° F and averaged 44.1° F. Average temperature for April was 54.7° F, which was 0.5° warmer than the official long-term average of 54.2° F. April rain totaled 3.89 inches, with one-third of it coming the first half of the month and two-thirds, the last half. Normal April rain for Location 5 is 4.37 inches. April rain was 0.48 of an inch below normal.

May was wet and warm. The soybean trials were planted May 11, in a firm moist seedbed. Sixteen days in May had measurable precipitation. Seven showers, the first half of the month, brought 2.63 inches and nine showers, the last half of the month, provided 5.05 inches of rain. Rain totaled 7.68 inches, which was 2.96 inches above the long-term average of 4.72 inches. Daily high temperatures ranged from 56° to 87° F, and averaged 78.1° F. Nightly lows ranged from 34° to 72° F and averaged 52.8° F. Average May temperature is 68.1° F, which is 4.4° above the long-term average of 63.7° F.

The first eight, and the last eight, days of June had no rain. Nine of fourteen days (June 9 through 22) had rain. June rain totaled 6.74 inches, which was 2.92 inches more than the long-term average of 3.82 inches. June day temperatures ranged from 75° to 89° and

averaged 82.6° F. Nightly lows ranged from 52° to 73° and averaged 61.5° F. June temperature averaged 72.1° F, which was 0.2° above the long-term average of 71.9° F.

July had seventeen days of measurable rain. The first half of the month had nine showers, which provided 3.81 inches of rain. The last half of the month had eight showers, which provided 1.34 inches of rain. Total July rain (5.14 inches) was 0.19 of an inch below the long-term average of 5.33 inches. July daily high temperatures ranged from 67° to 92° and averaged 83.5° F. Nightly lows ranged from 55° to 71° and averaged 63.5° F. Temperature for the month averaged 73.5° F, which was 2.0° cooler than the long-term average of 75.5° F. High temperatures for the month were on July 9 (91° F) and July 22 (92° F).

One rain (0.49 of an inch) fell during the first eighteen days of August. Six showers, during the last thirteen days of the month, provided an additional 2.94 inches of moisture. Rain total (3.14 inches) for August was 1.28 inches below the long-term average of 4.42 inches. August day temperatures ranged from 68° to 92° and averaged 81.9° F. Nightly lows ranged from 47° to 73° and averaged 58.5° F. Average August temperature was 70.2° F, which was 3.4° cooler than the long-term average temperature of 73.6° F. August 3 was the only day of the month when temperature reached 92° F.

September daytime temperatures ranged from 70° to 89° and averaged 80.7° F. Nightly lows ranged from 40° to 66° and averaged 55.1° F. Average September temperature (67.9° F) was 0.8° warmer than the long-term average temperature of 67.1° F. All September rain came on September 2 (0.10 of an inch) and September 3 (0.01 of an inch). No other precipitation was recorded for the month. The rain total (0.11 of an inch) was 2.78 inches below the long-term average of 2.89 inches. All of the soybean performance trials at Location 5 were harvested on September 22.

From May 1 through September 30, the soybean performance trials, at Location 5, received 22.82 inches of rain, which was 2.55 inches above the long-term average rainfall of 20.27 inches. July had two days and August had one day, when temperatures reached 91° and 92° F.

In 2004, at Location 5, yields were higher, precision of the trials better, and maturity dates earlier, than the 2003 performance trial results. Extensive foliar feeding, by Mexican Bean Beetles, was evident through out the trials. No assessment was made as to

whether any impact on yield actually occurred. Data from the 2004 trials should be useful in making performance comparisons. Results for Location 5 are presented in Tables 12, 13 and 14. Results from Location 5, combined with data from other locations across Indiana, are presented in Tables 15, 17, 18, and 20.

## **SOURCES OF SEED**

Information concerning certified seed may be obtained from the Indiana Crop Improvement Association, 7700 Stockwell Road, Lafayette, Indiana 47909. Companies, participating in these trials, have requested that inquiries concerning the entries, presented in this bulletin, be directed to the addresses listed on the following pages.

**Adler Seeds, Inc.**  
**6085 West 550 North**  
**Sharpsville, Indiana 46068**  
Telephone: 800-536-2676

Adler 296RRN  
Adler 321RRN  
Adler 338RRN  
Adler 354RRN  
Adler 374RRN  
Adler 385RRN

**Alliance Production, L.L.C.**  
**1009 North John Street, P.O. Box 79**  
**Farmer City, Illinois 61842**  
Telephone: 309-928-3123

IP 2902N  
IP 2991N  
IP 3400N  
IP 3822N

**Battleground Hybrids**  
**2265 West 600 North**  
**West Lafayette, Indiana 47906**  
Telephone: 765-463-4455

BG 341STS  
BG 353STS  
BG 382STS

**Beck's Superior Hybrids, Inc.**  
**6767 East 276th Street**  
**Atlanta, Indiana 46031**  
Telephone: 317-984-3508

Beck 323RR  
Beck 354NRR  
Beck 367NRR  
Beck 375NRR  
Beck 434NRR

**Bio Gene Seeds**  
**5491 Tri-County Highway**  
**Sardinia, Ohio 45171**  
Telephone: 937-444-6422

BioGene BG 3620NRR  
BioGene BG 3703NRR  
BioGene BG 4200NRRST

**Crop Production Services**  
**1445 West State Road 56**  
**Scottsburg, Indiana 47170**  
Telephone: 812-752-4951

CPS 6373NRR  
CPS 6396RR  
CPS 6401NRR  
CPS 6413NRR

**Dairyland Seed Company, Inc.**  
**P. O. Box 958, 3570 Highway H**  
**West Bend, Wisconsin 53095**  
Telephone: 800-236-0163

DSR-2801/RR  
DSR-3000/RR  
DSR-3002/RR  
DSR-326/RR  
DSR-345/RR  
DSR-3500/RR  
DSR-3501/RR  
DSR-3600/RR  
DSR-3800/RR  
DSR-385/RR

**Garst & AgriPro Seed Company**  
**2369 330th Street, P.O. Box 500**  
**Slater, Iowa 50244**  
Telephone: 800-831-6630

2724RR/N	Garst
3212RR/N	Garst
3585N	Garst
3624RR/N	Garst
3712RR/N	Garst
3824RR/N	Garst
3906N	Garst
4112RR/N	Garst
4212RR/STS/N	Garst
D294RR/N	Garst

**Martin Seeds, Inc.**  
**10045 West Second Street**  
**Williamsport, Indiana 47933**  
Telephone: 765-986-2030

M-328NRR	Martin
M-435NRR	Martin
M-533RR	Martin
M-538NRR	Martin

**Miles Farm Supply, L.L.C.**  
**P.O. Box 22879, 2760 Keller Road**  
**Owensboro, Kentucky 42304-2879**  
Telephone: 270-926-2420  
Telephone: 800-666-4537

SC Aaron NSTS
SC Abraham NRR
SC Hoshea N
SC Michael NRR/STS
SC Silas NRR
SC Stephen NRR

**Monsanto**  
**800 North Lindbergh Blvd.**  
**St. Louis, Missouri 63167**  
Telephone: 314-694-1000

AG 2801	Asgrow
AG 3101	Asgrow
AG 3201	Asgrow
AG 3305	Asgrow
AG 3401	Asgrow
AG 3602	Asgrow
AG 3802	Asgrow
AG 3905	Asgrow
AG 3906	Asgrow
DKB 28-53	DeKalb
DKB 31-51	DeKalb
DKB 34-51	DeKalb
DKB 36-52	DeKalb
DKB 37-51	DeKalb
DKB 38-52	DeKalb

**Prairie Stream Farms, Inc.**  
**2175 East Kelley Road**  
**Frankfort, Indiana 46041**  
Telephone: 765-659-4711

PSF 3103RR
PSF 325N
PSF 3304NNRR
PSF 3405RR
PSF 355N
PSF 371N
PSF 3903NRR

**Royster-Clark, Inc.**  
**717 Robinson Road SE**  
**Washington C.H., Ohio 43160**  
Telephone: 740-869-2181

V284RR	Vigoro
V28N5RR	Vigoro
V32N3RR	Vigoro
V354RR	Vigoro
V36N5RR	Vigoro
V38N5RS	Vigoro
V39N4RR	Vigoro
V42N3RR	Vigoro

**Rupp Seeds, Inc.**  
**17919 County Road B**  
**Wauseon, Ohio 43567**  
Telephone: 419-337-1841

Rupp RS 4232NRR  
Rupp RS 4279RR  
Rupp RS 4295RR  
Rupp RS 4314RR  
Rupp RS 4345RR

**Steyer Seeds**  
**5559 North 500 West**  
**McCordsville, Indiana 46055**  
Telephone: 317-335-3333

Steyer 3720RR  
Steyer 4000RR SCN  
Steyer 4200RR SCN

**Stine Seed Company, Inc.**  
**2225 Laredo Trail**  
**Adel, Iowa 50003**  
Telephone: 800-362-2510  
Telephone: 515-677-2605

Stine S2702-4  
Stine S3532-4  
Stine S3832-4

**Wabash Valley Hybrids**  
**2265 West 600 North**  
**West Lafayette, Indiana 47906**  
Telephone: 765-463-4455

TL 276RR  
TL 290RR  
TL 304RR  
TL 334RR  
TL 342RR  
TL 353RR  
TL 364RR  
TL 378RR  
TL 382RR  
TL 389RR

**Wyckoff Hybrids, Inc.**  
**Hoosier Pride Genetics, Inc.**  
**594 East 400 North**  
**Valparaiso, Indiana 46383**  
Telephone: 219-462-6716

Hoosier HP 2824CRR  
Hoosier HP 3041RR  
Hoosier HP 3233CRR  
Hoosier HP 3433CRR  
Hoosier HP 3502CRR  
Hoosier HP 3715RR  
Hoosier HP 3734C  
Hoosier HP 3832RR  
Hoosier HP 3934CRR

**2004 Indiana Soybean Performance Trial Results,  
Tables 1 through 20.**

**Table 1. Results of Maturity Group II, Roundup Ready® soybean performance trials in Porter Co., Location 1, northwest Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height	
	bu./A.			in.	
<b>Three-year average (2002, 2003, 2004)</b>					
TL 290RR	57.5 *	9-16	123	1.0	29
D294RR/N Garst	56.8 *	9-16	124	1.0	35
Rupp RS 4279RR	55.0 *	9-15	123	1.0	27
Grand mean	56.4	9-16	123	1.0	30
BLSD (k=100)	ns	ns	ns	ns	5
C.V. (%)	7.5	2	1		6
<b>Two-year average (2003, 2004)</b>					
AG 2801 Asgrow	70.1 *	9-17	129	1.0	32
TL 290RR	65.8 *	9-16	127	1.0	30
D294RR/N Garst	62.3 *	9-17	128	1.0	37
Rupp RS 4279RR	59.8 *	9-15	127	1.0	28
Grand mean	64.5	9-16	128	1.0	32
BLSD (k=100)	ns	ns	ns	ns	ns
C.V. (%)	6.5	2	1		4
<b>2004 results(4)</b>					
AG 2801 Asgrow	96.9 *	9-14	133	1.0	32
TL 290RR	94.8 *	9-15	134	1.0	27
Adler 296RRN	94.3 *	9-16	135	1.0	32
Hoosier HP 3041RR	92.1 *	9-14	133	1.0	32
Hoosier HP 2824CRR	90.8	9-15	134	1.0	33
Rupp RS 4295RR	90.0	9-13	132	1.0	36
Stine S2702-4	89.7	9-12	131	1.0	28
2724RR/N Garst	89.6	9-14	133	1.0	35
DSR-2801/RR	89.4	9-15	134	1.0	36
DKB 28-53 DeKalb	87.3	9-11	130	1.0	33
Rupp RS 4232NRR	86.6	9-06	125	1.0	28
D294RR/N Garst	84.4	9-14	133	1.0	37
Rupp RS 4279RR	83.4	9-11	130	1.0	29
Grand mean	89.9	9-13	132	1.0	32
BLSD (k=100)	5.3	1	1	ns	2
C.V. (%)	4.0	2	1		5

**Table 1 contd. Results of Maturity Group II, Roundup Ready® soybean performance trials in Porter Co., Location 1, northwest Indiana.**

Roundup Ready® is a trademark of Monsanto Co.  
 (1) Proprietary names are company or brand names, generally associated in the trade with variety, brand, or blend names.  
 (2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.  
 (3) 1 (erect) to 5 (flat).  
 (4) Conducted on the Pinney-Purdue Agricultural Center, Wanatah.  
 Jon D. Leuck, superintendent.  
 Soil type: Runnymede loam.  
 Soil test for Roundup Ready® soybeans, maturity group II: pH 6.0, P 29 ppm (medium), K 146 ppm (medium).  
 Date of planting: May 4, 2004.  
 Date of harvest: October 4, 2004.  
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**Table 2. Results of Maturity Group III, Roundup Ready® soybean performance trials in Porter Co., Location 1, northwest Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height	
	bu./A.			in.	
<b>Three-year average (2002, 2003, 2004)</b>					
Beck 323RR	66.3 *	9-21	128	1.0	31
3212RR/N Garst	61.4 *	9-17	125	1.0	32
Grand mean	63.9	9-19	127	1.0	32
BLSD (k=100)	ns	3	3	ns	1
C.V. (%)	6.5	2	1		5
<b>Two-year average (2003, 2004)</b>					
Beck 323RR	75.3 *	9-22	133	1.0	32
3212RR/N Garst	69.9 *	9-18	129	1.0	34
DSR-326/RR	69.6 *	9-23	135	1.0	35
Grand mean	71.6	9-21	132	1.0	34
BLSD (k=100)	ns	3	3	ns	2
C.V. (%)	5.3	1	0		6

**Table 2 contd. Results of Maturity Group III, Roundup Ready® soybean performance trials in Porter Co., Location 1, northwest Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>2004 results (4)</b>				
Adler 338RRN	98.3 *	9-20	139	1.0 36
Beck 323RR	97.4 *	9-19	138	1.0 31
3212RR/N	96.2 *	9-16	135	1.0 33
AG 3305	95.4 *	9-22	141	1.0 28
DKB 31-51 DeKalb	95.0 *	9-19	138	1.0 31
3624RR/N	94.7	9-22	141	1.0 34
Hoosier HP 3502CRR	94.5	9-20	139	1.0 36
DSR-326/RR	93.7	9-21	140	1.0 34
DSR-3002/RR	92.7	9-19	138	1.0 34
Rupp RS 4314RR	92.6	9-13	132	1.0 33
AG 3101	91.9	9-16	135	1.0 33
AG 3201	91.4	9-15	134	1.0 32
Adler 321RRN	91.0	9-19	138	1.0 35
TL 304RR	90.8	9-19	138	1.0 34
DSR-3000/RR	89.6	9-15	134	1.0 30
Hoosier HP 3233CRR	86.9	9-15	134	1.0 33
Hoosier HP 3934CRR	86.4	9-24	143	1.0 41
Grand mean	92.9	9-18	137	1.0 33
B LSD (k=100)	3.5	1	1	ns 2
C.V. (%)	2.8	2	1	5

Roundup Ready® is a trademark of Monsanto Co.

- (1) Proprietary names are company or brand names, generally associated in the trade with variety, brand, or blend names.
- (2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.
- (3) 1 (erect) to 5 (flat).
- (4) Conducted on the Pinney-Purdue Agricultural Center, Wanatah.  
Jon D. Leuck, superintendent.  
Soil type: Runnymede loam.  
Soil test for Roundup Ready® soybeans, maturity group III: pH 6.2, P 28 ppm (medium), K 140 ppm (medium).  
Date of planting: May 4, 2004.  
Date of harvest: October 4, 2004.  
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**Table 3. Results of the Conventional Soybean performance trial (Maturity Groups II and III) in Tippecanoe Co., Location 2, west central Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>2004 results(4)</b>				
PSF 325N	65.2 *	9-25	114	1.0 31
3585N	63.7 *	10-02	121	1.0 37
PSF 355N	63.0 *	9-29	118	1.0 35
PSF 371N	62.5 *	10-03	122	1.0 38
Hoosier HP 3734C	62.2 *	10-03	122	1.0 38
IP 2902N	60.8 *	10-01	120	1.0 33
IP 2991N	55.7 *	9-24	113	1.0 28
Grand mean	61.9	9-30	119	1.0 34
B LSD (k=100)	ns	2	2	ns 3
C.V. (%)	9.9	2	1	6

- (1) Proprietary names are company or brand names, generally associated in the trade with variety, brand, or blend names.
- (2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.
- (3) 1 (erect) to 5 (flat).
- (4) Conducted on the Purdue University Agronomy Center for Research and Education, Lafayette.  
James J. Beaty III, superintendent.  
Randomized complete block design: 4 blocks.  
Soil type: Drummer (Chalmers) clay loam.  
Soil test for conventional soybeans: pH 6.4, P 17 ppm (low), K 163 ppm (high).  
Date of planting: June 3, 2004.  
Date of harvest: October 5, 2004.  
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**Table 4. Results of Maturity Group II, Roundup Ready® soybean performance trials in Tippecanoe Co., Location 2, west central Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height	
	bu./A.			in.	
<b>Three-year average (2002, 2003, 2004)</b>					
M-328NRR Martin	56.5 *	9-23	116	1.0	31
Rupp RS 4279RR	53.9 *	9-21	114	1.0	26
Grand mean	55.2	9-22	115	1.0	29
	ns	ns	ns	ns	1
C.V. (%)	12.9	2	1		8
<b>Two-year average (2003, 2004)</b>					
M-328NRR Martin	51.8 *	9-21	116	1.0	29
Rupp RS 4279RR	50.6 *	9-20	115	1.0	24
Grand mean	51.2	9-21	116	1.0	27
	ns	ns	ns	ns	2
C.V. (%)	16.6	3	1		10
<b>2004 results(4)</b>					
V284RR Vigoro	71.7 *	9-26	115	1.0	30
AG 2801 Asgrow	70.4 *	9-28	117	1.0	29
TL 290RR	69.8 *	9-28	117	1.0	26
TL 276RR	67.3 *	9-25	114	1.0	31
Hoosier HP 3041RR	67.2 *	9-26	115	1.0	29
V28N5RR Vigoro	66.7 *	9-25	114	1.0	30
Stine S2702-4	65.3 *	9-26	115	1.0	26
Rupp RS 4232NRR	65.2 *	9-23	112	1.0	26
DSR-2801/RR	65.1 *	9-28	117	1.0	32
2724RR/N Garst	65.0 *	9-25	114	1.0	32
DKB 28-53 DeKalb	65.0 *	9-26	115	1.0	29
Hoosier HP 2824CRR	63.0 *	9-26	115	1.0	29
Rupp RS 4279RR	61.1	9-25	114	1.0	25
M-328NRR Martin	60.0	9-27	116	1.0	30
D294RR/N Garst	58.1	9-25	114	1.0	33
Grand mean	65.4	9-26	115	1.0	29
BLSD (k=100)	10.2	1	1	ns	2
C.V. (%)	8.3	2	1		5

**Table 4 contd. Results of Maturity Group II, Roundup Ready® soybean performance trials in Tippecanoe Co., Location 2, west central Indiana.**

Roundup Ready® is a trademark of Monsanto Co.  
 (1) Proprietary names are company or brand names, generally associated in the trade with variety, brand, or blend names.  
 (2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.  
 (3) 1 (erect) to 5 (flat).  
 (4) Conducted on the Purdue University Agronomy Center for Research and Education, Lafayette. James J. Beaty III, superintendent.  
 Randomized complete block design: 4 blocks.  
 Soil type: Drummer (Chalmers) clay loam.  
 Soil test for Roundup Ready® soybeans, maturity group II: pH 6.3, P 13 ppm (low), K 156 ppm (high).  
 Date of planting: June 3, 2004.  
 Date of harvest for maturity group II: October 5, 2004.  
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**Table 5. Results of Maturity Group III, Roundup Ready® soybean performance trials in Tippecanoe Co., Location 2, west central Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height	
	bu./A.			in.	
<b>Three-year average (2002, 2003, 2004)</b>					
Beck 367NRR	63.6 *	10-01	124	1.1	31
DKB 31-51 DeKalb	62.6 *	9-27	120	1.0	31
3712RR/N Garst	62.3 *	10-02	124	1.3	31
TL 342RR	61.5 *	9-28	120	1.1	31
Beck 323RR	60.6 *	9-27	120	1.2	32
TL 353RR	60.0 *	9-29	121	1.1	33
AG 3401 Asgrow	60.0 *	9-30	123	1.3	36
3212RR/N Garst	59.1 *	9-25	117	1.1	32
Grand mean	61.2	9-29	121	1.1	32
BLSD (k=100)	ns	3	3	ns	3
C.V. (%)	6.4	2	1	21.2	7

**Table 5 contd. Results of Maturity Group III, Roundup Ready® soybean performance trials in Tippecanoe Co., Location 2, west central Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Two-year average (2003, 2004)</b>				
Beck 375NRR	58.6 *	9-30	125	1.0 32
Beck 367NRR	57.7 *	10-01	126	1.0 29
DKB 31-51 DeKalb	56.4 *	9-25	120	1.0 29
TL 342RR	54.5 *	9-26	121	1.0 29
3712RR/N Garst	54.5 *	10-01	126	1.0 29
DSR-326/RR	54.2 *	9-27	122	1.0 34
AG 3401 Asgrow	53.7 *	9-29	124	1.0 34
M-435NRR Martin	53.7 *	9-30	125	1.1 35
DSR-345/RR	53.4 *	9-28	123	1.0 32
3212RR/N Garst	53.3 *	9-23	118	1.0 31
TL 353RR	52.8 *	9-27	122	1.0 31
DSR-385/RR	52.8 *	10-01	126	1.0 29
Rupp RS 4345RR	52.5 *	9-24	119	1.0 28
Beck 323RR	52.5 *	9-25	120	1.0 29
Grand mean	54.3	9-28	123	1.0 31
BLSD (k=100)	ns	3	3	ns 3
C.V. (%)	8.1	3	1	9.4 6
<b>2004 results(4)</b>				
DKB 37-51 DeKalb	68.5 *	10-05	124	1.0 35
3712RR/N Garst	68.0 *	10-05	124	1.0 32
DKB 38-52 DeKalb	67.7 *	10-05	124	1.0 34
Beck 367NRR	67.6 *	10-05	124	1.0 30
3624RR/N Garst	67.5 *	10-04	123	1.0 35
DSR-3600/RR	66.7 *	10-04	123	1.0 31
V36N5RR Vigoro	66.7 *	10-05	124	1.0 36
Beck 375NRR	66.6 *	10-04	123	1.0 34
DKB 31-51 DeKalb	66.4 *	10-01	120	1.0 30
M-533RR Martin	66.2 *	9-30	119	1.0 32
DSR-326/RR	66.0 *	10-03	122	1.0 36
3212RR/N Garst	65.7 *	9-29	118	1.0 32
V354RR Vigoro	65.7 *	10-02	121	1.0 34
TL 342RR	65.6 *	9-29	118	1.0 28
TL 334RR	65.3 *	10-02	121	1.0 36
DSR-3501/RR	65.3 *	10-03	122	1.3 37
Rupp RS 4345RR	65.0 *	9-29	118	1.0 30
3824RR/N Garst	64.9 *	10-04	123	1.0 34
V32N3RR Vigoro	64.7 *	9-30	119	1.0 33
DSR-3002/RR	64.6 *	10-02	121	1.0 36
PSF 3405RR	64.5 *	10-03	122	1.0 36

**Table 5 contd. Results of Maturity Group III, Roundup Ready® soybean performance trials in Tippecanoe Co., Location 2, west central Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>2004 results continued(4)</b>				
Stine S3532-4	63.8 *	10-03	122	1.0 32
DSR-3500/RR	63.8 *	10-05	124	1.0 36
AG 3101 Asgrow	63.7 *	9-29	118	1.0 34
AG 3201 Asgrow	63.6 *	9-29	118	1.0 33
AG 3305 Asgrow	63.6 *	10-03	122	1.0 29
Beck 354NRR	63.4 *	10-04	123	1.0 34
AG 3401 Asgrow	62.8 *	10-04	123	1.0 37
DSR-3000/RR	62.6 *	9-29	118	1.0 30
DSR-385/RR	62.6 *	10-05	124	1.0 31
DSR-345/RR	62.5 *	10-04	123	1.0 34
PSF 3304NNRR	61.5 *	10-03	122	1.0 35
M-435NRR Martin	61.4 *	10-05	124	1.3 37
PSF 3903NRR	61.1 *	10-05	124	1.0 38
AG 3602 Asgrow	61.0 *	10-04	123	1.0 35
Beck 323RR	60.9 *	9-30	119	1.0 30
M-538NRR Martin	60.9 *	10-05	124	1.0 33
V38N5RS Vigoro	60.6 *	10-05	124	1.0 30
DKB 34-51 DeKalb	60.5 *	9-30	119	1.0 34
PSF 3103RR	60.3 *	9-30	119	1.0 28
TL 353RR	59.7 *	10-02	121	1.0 32
DKB 36-52 DeKalb	59.0	10-04	123	1.0 34
TL 304RR	57.8	9-30	119	1.0 32
TL 364RR	57.8	10-05	124	1.0 38
AG 3802 Asgrow	57.6	10-05	124	1.0 37
DSR-3800/RR	55.5	10-05	124	1.0 34
Grand mean	63.4	10-03	122	1.0 33
BLSD (k=100)	9.4	1	1	ns 2
C.V. (%)	7.5	2	1	10.2 5

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(2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.

(3) 1 (erect) to 5 (flat).

**Table 5 contd. Results of Maturity Group III, Roundup Ready® soybean performance trials in Tippecanoe Co., Location 2, west central Indiana.**

(4) Conducted on the Purdue University Agronomy Center for Research and Education, Lafayette. James J. Beaty III, superintendent. Randomized complete block design: 4 blocks. Soil type: Drummer (Chalmers) clay loam. Soil test for Roundup Ready® soybeans, maturity group III: pH 6.2, P 12 ppm (low), K 135 ppm (medium). Date of planting: June 3, 2004. Date of harvest for maturity group III: October 11, 2004. (Copyright 2004 Purdue Research Foundation)

**Table 6. Results of the Conventional Soybean performance trial (Maturity Groups II and III) in Randolph Co., Location 3, east central Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>2004 results(4)</b>				
3906N	Garst 72.8 *	9-19	135	1.0 31
PSF 355N	67.8 *	9-10	126	1.0 30
PSF 371N	65.9 *	9-12	128	1.0 30
IP 3822N	65.5 *	9-15	131	1.0 27
IP 3400N	65.3 *	9-14	130	1.0 27
3585N	Garst 64.3 *	9-12	128	1.0 30
IP 2902N	56.7	9-12	128	1.0 24
Hoosier HP 3832RR	53.7	9-22	138	1.0 25
IP 2991N	52.4	9-03	119	1.0 21
PSF 325N	51.2	9-08	124	1.0 23
Grand mean	61.6	9-13	129	1.0 27
B LSD (k=100)	9.0	4	4	ns 4
C.V. (%)	10.1	7	2	10

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 (2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.  
 (3) 1 (erect) to 5 (flat).

**Table 6 contd. Results of the Conventional Soybean performance trial (Maturity Groups II and III) in Randolph Co., Location 3, east central Indiana.**

(4) Conducted on the Davis-Purdue Agricultural Center, Farmland. Jeffrey L. Boyer, superintendent. Randomized complete block design: 4 blocks. Soil type: Blount silty clay loam. Soil test for conventional soybeans: pH 6.7, P 23 ppm (medium), K 117 ppm (medium). Date of planting: May 7, 2004. Date of harvest for conventional soybeans: September 30, 2004. (Copyright 2004 Purdue Research Foundation)

**Table 7. Results of the Maturity Group II, Roundup Ready® soybean performance trial in Randolph Co., Location 3, east central Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>2004 results(4)</b>				
Rupp RS 4295RR	88.8 *	9-12	128	1.0 27
Adler 296RRN	84.6 *	9-17	133	1.0 27
V28N5RR Vigoro	82.6 *	9-17	133	1.0 26
V284RR Vigoro	77.7	9-12	128	1.0 23
M-328NRR Martin	76.7	9-14	130	1.0 22
Grand mean	82.1	9-14	130	1.0 25
B LSD (k=100)	6.4	5	5	ns 3
C.V. (%)	5.0	6	2	8

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 (2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.  
 (3) 1 (erect) to 5 (flat).

**Table 7 contd. Results of the Maturity Group II, Roundup Ready® soybean performance trial in Randolph Co., Location 3, east central Indiana.**

(4) Conducted on the Davis-Purdue Agricultural Center, Farmland.  
 Jeffrey L. Boyer, superintendent.  
 Randomized complete block design: 4 blocks.  
 Soil type: Blount silty clay loam.  
 Soil test for Roundup Ready® soybeans, maturity group II: pH 5.6, P 49 ppm (high), K 163 ppm (high).  
 Date of planting: May 7, 2004.  
 Date of harvest: September 30, 2004.  
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**Table 8. Results of Maturity Group III, Roundup Ready® soybean performance trials in Randolph Co., Location 3, east central Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Three-year average (2002, 2003, 2004)</b>				
3712RR/N Garst	67.9 *	9-28	130	1.0 28
Beck 367NRR	67.6 *	9-28	130	1.0 29
Beck 323RR	63.7 *	9-23	125	1.0 28
AG 3401 Asgrow	62.7 *	9-27	128	1.0 34
Grand mean	65.5	9-27	128	1.0 30
BLSD (k=100)	ns	2	2	ns 4
C.V. (%)	9.7	2	1	10
<b>Two-year average (2003, 2004)</b>				
3712RR/N Garst	74.4 *	9-29	135	1.0 29
Beck 367NRR	73.0 *	9-29	134	1.0 30
DSR-385/RR	69.8 *	9-30	135	1.0 30
Beck 375NRR	69.5 *	9-26	132	1.0 32
DSR-345/RR	69.2 *	9-24	129	1.0 34
Beck 323RR	67.4 *	9-24	129	1.0 29
Rupp RS 4345RR	66.2 *	9-26	131	1.0 28
AG 3401 Asgrow	65.0 *	9-28	133	1.0 36
Grand mean	69.3	9-27	132	1.0 31
BLSD (k=100)	ns	3	3	ns 5
C.V. (%)	6.7	3	1	7

**Table 8 contd. Results of Maturity Group III, Roundup Ready® soybean performance trials in Randolph Co., Location 3, east central Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>2004 results(4)</b>				
M-435NRR Martin	94.6 *	9-24	140	1.0 34
Beck 354NRR	92.8 *	9-24	140	1.0 35
3712RR/N Garst	92.6 *	9-24	140	1.0 30
Beck 367NRR	92.2 *	9-24	140	1.0 32
V38N5RS Vigoro	91.5 *	9-24	140	1.0 29
V36N5RR Vigoro	91.4 *	9-24	140	1.0 32
DSR-3800/RR	91.3 *	9-24	140	1.0 34
Hoosier HP 3715RR	90.9 *	9-24	140	1.0 37
M-538NRR Martin	90.6 *	9-24	140	1.0 31
Adler 385RRN	90.3 *	9-24	140	1.0 30
Rupp RS 4314RR	89.9 *	9-12	128	1.0 31
DKB 36-52 DeKalb	89.8 *	9-22	138	1.0 33
DSR-385/RR	89.8 *	9-24	140	1.0 31
M-533RR Martin	89.6 *	9-17	133	1.0 29
AG 3602 Asgrow	88.8 *	9-24	140	1.0 31
DSR-3500/RR	88.6 *	9-22	138	1.0 32
DSR-3501/RR	88.3 *	9-22	138	1.0 33
DSR-3600/RR	87.8 *	9-24	140	1.0 32
AG 3305 Asgrow	87.7 *	9-24	140	1.0 28
3824RR/N Garst	87.7 *	9-24	140	1.0 31
V354RR Vigoro	87.4	9-19	135	1.0 32
Adler 354RRN	86.8	9-21	137	1.0 30
DKB 38-52 DeKalb	86.7	9-24	140	1.0 31
3624RR/N Garst	86.3	9-21	137	1.0 33
DSR-345/RR	86.2	9-17	133	1.0 32
Adler 321RRN	85.8	9-19	135	1.0 30
Rupp RS 4345RR	85.7	9-21	137	1.0 29
Beck 375NRR	85.4	9-21	137	1.0 31
DKB 34-51 DeKalb	83.6	9-19	135	1.0 31
Adler 338RRN	83.6	9-21	137	1.0 27
Hoosier HP 3502CRR	83.2	9-22	138	1.0 34
V32N3RR Vigoro	83.0	9-17	133	1.0 31
AG 3802 Asgrow	82.5	9-24	140	1.0 34
AG 3401 Asgrow	82.0	9-22	138	1.0 34
Stine S3532-4	81.8	9-17	133	1.0 28
Hoosier HP 3433CRR	81.8	9-19	135	1.0 29
Hoosier HP 3233CRR	81.3	9-17	133	1.0 29
Hoosier HP 3934CRR	81.3	9-24	140	1.0 29
AG 3201 Asgrow	80.7	9-15	131	1.0 30

**Table 8 contd. Results of Maturity Group III, Roundup Ready® soybean performance trials in Randolph Co., Location 3, east central Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>2004 results continued(4)</b>				
DKB 37-51 DeKalb	79.5	9-19	135	30
PSF 3304NNRR	79.1	9-21	137	33
Adler 374RRN	79.0	9-19	135	30
PSF 3103RR	78.8	9-15	131	28
Beck 323RR	77.7	9-17	133	28
AG 3101 Asgrow	77.4	9-17	133	28
DKB 31-51 DeKalb	76.7	9-17	133	27
Grand mean	85.9	9-21	137	31
BLSD (k=100)	7.0	3	3	ns
C.V. (%)	5.7	5	2	7

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(2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.

(3) 1 (erect) to 5 (flat).

(4) Conducted on the Davis-Purdue Agricultural Center, Farmland.

Jeffrey L. Boyer, superintendent.

Randomized complete block design: 4 blocks.

Soil type: Blount silty clay loam.

Soil test for Roundup Ready® soybeans, maturity group III: pH 5.8, P 50 ppm (very high), K 135 ppm (high).

Date of planting: May 7, 2004.

Date of harvest: September 30, 2004.

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**Table 9. Results of Maturity Groups III and IV, Conventional Soybean performance trials in Knox Co., Location 4, southwest Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Maturity Group III (2002, 2003, 2004)</b>				
3906N Garst	58.3	9-14	121	35
<b>Maturity Group IV (2002, 2003, 2004)</b>				
SC Aaron NSTS	48.2	9-21	128	32
<b>Two-year average (2003, 2004)</b>				
3906N Garst	67.5 *	9-11	131	37
SC Aaron NSTS	39.0	9-28	148	33
Grand mean	53.3	9-20	140	35
BLSD (k=100)	4.2			ns
C.V. (%)	11.6			46.1

**2004 results(4)**

3906N Garst	73.3 *	9-11	131	34
SC Hoshea N	69.0 *	9-15	135	37
IP 3400N	66.4 *	8-31	120	32
IP 3822N	65.8 *	9-12	132	34
BG 382STS	62.2	9-10	130	39
BG 341STS	59.9	9-05	125	34
BG 353STS	45.7	9-11	131	29
SC Aaron NSTS	43.3	9-28	148	27
Grand mean	60.7	9-12	132	33
BLSD (k=100)	7.6	2	2	ns
C.V. (%)	9.2	4	1	33.3

(1) Proprietary names are company or brand names, generally associated in the trade with variety, brand, or blend names.

(2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.

(3) 1 (erect) to 5 (flat).

(4) Conducted on the Southwest-Purdue Agricultural Center, Vincennes.

Melborn K. Lang, superintendent.

Soil type: Ade loamy fine sand.

Soil test for conventional soybeans: pH 6.5, P 88 ppm (very high), K 176 ppm (high).

Date of planting: May 3, 2004.

Date of harvest: September 28, 2004.

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**Table 10. Results of Maturity Group III, Roundup Ready® soybean performance trials in Knox Co., Location 4, southwest Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Three-year average (2002, 2003, 2004)</b>				
DKB 38-52 DeKalb	73.8 *	9-15	122	1.2
TL 389RR	67.5 *	9-14	120	1.6
Grand mean	70.7	9-15	121	1.4
B LSD (k=100)	ns			0.2
C.V. (%)	7.2		27.9	5
<b>Two-year average (2003, 2004)</b>				
AG 3905 Asgrow	77.8 *	9-12	132	1.4
SC Abraham NRR	76.6 *	9-13	133	1.0
3824RR/N Garst	76.3 *	9-08	128	1.5
Stine S3832-4	76.0 *	9-09	129	1.4
DKB 37-51 DeKalb	74.2 *	9-02	122	1.9
SC Stephen NRR	72.8 *	9-11	131	1.3
DKB 38-52 DeKalb	71.9 *	9-10	130	1.1
TL 389RR	67.1 *	9-06	126	1.6
Grand mean	74.1	9-09	129	1.4
B LSD (k=100)	ns			0.3
C.V. (%)	7.4		28.4	5
<b>2004 results(4)</b>				
AG 3906 Asgrow	88.1 *	9-13	133	1.0
AG 3602 Asgrow	88.0 *	9-05	125	1.8
AG 3905 Asgrow	87.3 *	9-12	132	1.3
Adler 354RRN	86.4 *	9-03	123	1.0
AG 3802 Asgrow	82.4 *	9-05	125	1.3
3624RR/N Garst	81.3 *	9-03	123	2.3
V39N4RR Vigoro	80.1	9-08	128	1.5
Stine S3832-4	79.5	9-09	129	1.3
TL 382RR	79.4	9-01	121	2.0
SC Abraham NRR	79.4	9-13	133	1.0
Adler 374RRN	78.9	9-03	123	1.5
Steyer 3720RR	78.8	9-06	126	2.0
CPS 6373NRR	78.2	9-01	121	2.0
BioGene BG 3703NRR	78.2	9-02	122	1.8
V38N5RS Vigoro	76.2	9-09	129	1.0
3824RR/N Garst	76.0	9-08	128	1.3
Adler 385RRN	75.7	9-10	130	1.3
DKB 37-51 DeKalb	75.4	9-02	122	1.8
DKB 38-52 DeKalb	74.7	9-10	130	1.0
Hoosier HP 3934CRR	74.2	9-10	130	1.3

**Table 10 contd. Results of Maturity Group III, Roundup Ready® soybean performance trials in Knox Co., Location 4, southwest Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>2004 results continued(4)</b>				
SC Stephen NRR	73.7	9-11	131	1.0
Hoosier HP 3502CRR	73.1	9-02	122	1.0
TL 389RR	65.4	9-06	126	1.5
BioGene BG 3620NRR	63.9	9-09	129	1.0
TL 378RR	62.6	9-12	132	1.0
CPS 6396RR	61.6	9-04	124	1.0
Grand mean	76.9	9-07	127	1.4
B LSD (k=100)	7.9	3	3	0.5
C.V. (%)	7.5	6	2	25.1

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 (1) Proprietary names are company or brand names, generally associated in the trade with variety, brand, or blend names.  
 (2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.  
 (3) 1 (erect) to 5 (flat).  
 (4) Conducted on the Southwest-Purdue Agricultural Center, Vincennes.  
 Melborn K. Lang, superintendent.  
 Soil type: Ade loamy fine sand.  
 Soil test for Roundup Ready® soybeans, maturity group III: pH 6.4, P 62 ppm (very high), K 136 ppm (high).  
 Date of planting: May 3, 2004.  
 Date of harvest for Roundup Ready® soybeans, maturity group III: September 21, 2004.  
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**Table 11. Results of Maturity Group IV Roundup Ready® soybean performance trials in Knox Co., Location 4, southwest Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Two-year average (2003, 2004)</b>				
SC Michael NRR/STS	74.4	9-14	134	1.3 36
<b>2004 results(4)</b>				
CPS 6413NRR	87.9 *	9-12	132	1.0 37
4212RR/STS/N Garst	85.3 *	9-12	132	1.0 31
V42N3RR Vigoro	84.2 *	9-13	133	1.0 35
SC MichaelNRR/STS	81.3 *	9-14	134	1.0 36
BioGene BG 4200NRRST	80.3 *	9-14	134	1.0 33
CPS 6401NRR	76.4	9-09	129	1.0 33
Steyer 4200RR SCN	76.0	9-17	137	2.0 45
Steyer 4000RR SCN	74.9	9-06	126	1.0 32
4112RR/N Garst	72.8	9-09	129	1.0 33
SC Silas NRR	70.7	9-28	148	1.0 40
Beck 434NRR	58.6	9-14	134	1.0 43
Grand mean	77.1	9-13	133	1.1 36
B LSD (k=100)	8.0	3	3	ns 4
C.V. (%)	7.5	5	2	8

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(1) Proprietary names are company or brand names, generally associated in the trade with variety, brand, or blend names.

(2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.

(3) 1 (erect) to 5 (flat).

(4) Conducted on the Southwest-Purdue Agricultural Center, Vincennes.

Melborn K. Lang, superintendent.

Soil type: Ade loamy fine sand.

Soil test for Roundup Ready® soybeans, maturity group IV: pH 6.4, P 67 ppm (very high), K 178 ppm (high).

Date of planting: May 3, 2004.

Date of harvest for Roundup Ready® soybeans, maturity group IV: September 28, 2004.

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**Table 12. Results of Maturity Groups III and IV, Conventional Soybean performance trials in Jennings Co., Location 5, southeast Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Maturity Group III (2002, 2003, 2004)</b>				
3906N	Garst 61.7	9-27	116	1.1 32
<b>Maturity Groups III and IV (2003, 2004)</b>				
3906N	Garst 63.9 *	9-25	122	1.1 33
SC Aaron NSTS	49.3 *	9-29	126	1.5 30
Grand mean	56.6	9-27	124	1.3 32
B LSD (k=100)	ns	ns	ns	ns ns
C.V. (%)	6.8		36.8	6
<b>2004 results(4)</b>				
3906N	Garst 71.6 *	9-15	127	1.3 38
SC Hoshea N	71.6 *	9-16	128	1.0 37
Hoosier HP 3734C	67.4 *	9-12	124	1.0 33
SC Aaron NSTS	67.0 *	9-19	131	2.0 37
BG 382STS	66.1 *	9-13	125	2.3 36
BG 353STS	64.5 *	9-12	124	2.0 34
BG 341STS	63.7	9-12	124	1.8 32
Hoosier HP 3832RR	62.6	9-15	127	1.0 31
Grand mean	66.8	9-14	126	1.6 35
B LSD (k=100)	7.5	2	2	0.9 3
C.V. (%)	6.4	3	1	36.3 5

(1) Proprietary names are company or brand names, generally associated in the trade with variety, brand, or blend names.

(2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.

(3) 1 (erect) to 5 (flat).

(4) Conducted on the Southeast-Purdue Agricultural Center, Butlerville.

Donald J. Biehle, superintendent.

Soil type: Avonburg.

Soil test for conventional soybeans: pH 6.1, P 21 ppm (medium), K 116 ppm (medium).

Date of planting: May 11, 2004.

Date of harvest: September 22, 2004.

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**Table 13. Results of Maturity Group III, Roundup Ready® soybean performance trials in Jennings Co., Location 5, southeast Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Three-year average (2002, 2003, 2004)</b>				
TL 378RR	62.0	9-27	116	1.4 27
<b>Two-year average (2003, 2004)</b>				
AG 3905 Asgrow	62.3 *	9-26	123	1.3 33
3824RR/N Garst	61.7 *	9-23	121	1.4 32
Stine S3832-4	61.2 *	9-26	123	1.9 31
TL 378RR	59.5 *	9-23	121	1.6 26
SC Abraham NRR	58.8 *	9-26	123	1.0 30
Grand mean	60.7	9-25	122	1.4 30
BLSD (k=100)	ns	ns	ns	ns 3
C.V. (%)	8.6	3	1	40.8 6

**2004 results(4)**

TL 334RR	79.8 *	9-12	124	1.5 36
Beck 375NRR	79.6 *	9-13	125	2.0 36
BioGene BG 3703NRR	77.9 *	9-13	125	1.8 36
AG 3602 Asgrow	77.8 *	9-13	125	1.0 35
TL 342RR	77.7 *	9-12	124	3.0 32
BioGene BG 3620NRR	77.3 *	9-15	127	1.5 34
Stine S3832-4	76.8 *	9-15	127	2.8 34
V38N5RS Vigoro	76.6 *	9-15	127	1.0 35
Beck 367NRR	76.5 *	9-13	125	2.8 33
AG 3906 Asgrow	76.0 *	9-17	129	1.0 33
CPS 6396RR	75.9 *	9-14	126	2.3 34
TL 364RR	74.9 *	9-17	129	3.3 39
TL 353RR	74.7 *	9-10	122	1.0 34
Hoosier HP 3502CRR	74.7 *	9-11	123	1.0 37
AG 3905 Asgrow	74.7 *	9-17	129	1.5 38
3624RR/N Garst	74.6 *	9-13	125	1.8 36
CPS 6373NRR	74.4 *	9-13	125	1.8 35
TL 378RR	73.8 *	9-13	125	2.3 30
SC Abraham NRR	73.5 *	9-18	130	1.0 34
DKB 37-51 DeKalb	73.4 *	9-13	125	1.8 36
TL 382RR	73.3 *	9-13	125	1.5 36
AG 3802 Asgrow	72.4 *	9-13	125	1.0 39
V39N4RR Vigoro	72.3 *	9-13	125	2.0 34
3824RR/N Garst	71.5 *	9-12	124	1.8 36
Steyer 3720RR	70.7 *	9-12	124	2.5 37
Hoosier HP 3433CRR	70.5 *	9-11	123	1.3 32
Hoosier HP 3715RR	69.4 *	9-13	125	3.0 38

**Table 13 contd. Results of Maturity Group III, Roundup Ready® soybean performance trials in Jennings Co., Location 5, southeast Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>2004 results continued(4)</b>				
SC Stephen NRR	67.6 *	9-15	127	2.3 33
TL 389RR	67.5 *	9-14	126	3.0 40
PSF 3903NRR	66.4 *	9-13	125	2.5 41
PSF 3405RR	65.7 *	9-12	124	1.3 34
DKB 38-52 DeKalb	64.0	9-11	123	1.3 34
Hoosier HP 3934CRR	62.3	9-15	127	1.0 38
Grand mean	73.2	9-13	125	1.8 35
BLSD (k=100)	15.8	3	3	0.9 2
C.V. (%)	9.9	5	2	35.4 4

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 (2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.  
 (3) 1 (erect) to 5 (flat).  
 (4) Conducted on the Southeast-Purdue Agricultural Center, Butlerville.  
 Donald J. Biehle, superintendent.  
 Soil type: Avonburg.  
 Soil test for Roundup Ready® soybeans, maturity group III: pH 6.6, P 20 ppm (medium), K 104 ppm (medium).  
 Date of planting: May 11, 2004.  
 Date of harvest: September 22, 2004.  
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**Table 14. Results of Maturity Group IV Roundup Ready® soybean performance trials in Jennings Co., Location 5, southeast Indiana.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Two-year average (2003, 2004)</b>				
SC Michael NRR/STS	64.0	9-27	124	1.0 30
<b>2004 results(4)</b>				
CPS 6413NRR	79.2 *	9-18	130	1.0 33
4112RR/N Garst	77.9 *	9-15	127	1.0 33
CPS 6401NRR	76.5 *	9-16	128	1.0 32
V42N3RR Vigoro	76.1 *	9-16	128	1.0 32
Steyer 4000RR SCN	73.8 *	9-15	127	1.0 32
SC Michael NRR/STS	72.1 *	9-18	130	1.0 34
4212RR/STS/N Garst	71.0 *	9-17	129	1.0 33
BioGene BG 4200NRRST	70.1 *	9-15	127	1.0 32
Steyer 4200RR SCN	69.8 *	9-19	131	1.8 43
Beck 434NRR	65.8	9-19	131	1.3 38
SC Silas NRR	63.5	9-20	132	1.5 40
Grand mean	72.3	9-17	129	1.1 35
BLSD (k=100)	9.6	1	1	0.4 2
C.V. (%)	8.1	2	1	23.8 4

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 (2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.  
 (3) 1 (erect) to 5 (flat).  
 (4) Conducted on the Southeast-Purdue Agricultural Center, Butlerville.  
 Donald J. Biehle, superintendent.  
 Soil type: Avonburg.  
 Soil test for Roundup Ready® soybeans, maturity group IV: pH 7.0, P 18 ppm (low), K 89 ppm (medium).  
 Date of planting: May 11, 2004.  
 Date of harvest: September 22, 2004.  
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**Table 15. Results of Conventional Soybean performance trials averaged across Indiana locations 2 through 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 2 and 3 (2004)</b>				
PSF 355N	65.4 *	9-19	122	1.0 32
PSF 371N	64.2 *	9-23	125	1.0 34
3585N Garst	64.0 *	9-22	124	1.0 34
IP 2902N	58.7 *	9-21	124	1.0 28
PSF 325N	58.2 *	9-16	119	1.0 27
IP 2991N	54.0 *	9-13	116	1.0 25
Grand mean	60.8	9-19	122	1.0 30
BLSD (k=100)	ns	3	3	ns 2
C.V. (%)	9.2	4	2	8
<b>Locations 2 and 5 (2004)</b>				
Hoosier HP 3734C	64.8	9-22	123	1.0 36
<b>Locations 3, 4 and 5 (2004)</b>				
3906N Garst	72.5	9-15	131	1.1 34
<b>Locations 3 and 4 (2004)</b>				
3906N Garst	73.0 *	9-15	133	1.0 32
IP 3400N	65.8	9-07	125	1.0 29
IP 3822N	65.7	9-13	131	1.0 31
Grand mean	68.2	9-12	130	1.0 31
BLSD (k=100)	0.8	ns	ns	ns ns
C.V. (%)	10.7	5	2	11
<b>Locations 4 and 5 (2003, 2004)</b>				
3906N Garst	65.7 *	9-20	125	1.2 35
SC Aaron NSTS	44.1	9-29	134	1.5 31
Grand mean	54.9	9-25	130	1.4 33
BLSD (k=100)	16.5			ns 4
C.V. (%)	9.4			42.1 8
<b>Locations 4 and 5 (2004)</b>				
3906N Garst	72.4 *	9-13	129	1.1 36
SC Hoshea N	70.3 *	9-15	131	1.0 37
BG 382STS	64.1 *	9-11	127	1.9 37
BG 341STS	61.8 *	9-09	125	1.4 33
BG 353STS	55.1 *	9-11	127	1.5 31
SC Aaron NSTS	55.1 *	9-23	139	1.5 32
Grand mean	63.1	9-14	130	1.4 34
BLSD (k=100)	20.2	11	11	0.8 ns
C.V. (%)	7.7	4	1	36.8 7

**Table 15 contd. Results of Conventional Soybean performance trials averaged across Indiana locations 2 through 5.**

- (1) Proprietary names are company or brand names, generally associated in the trade with variety, brand, or blend names.  
 (2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.  
 (3) 1 (erect) to 5 (flat).  
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**Table 16. Results of Roundup Ready® soybean, Maturity Group II, performance trials averaged across Indiana locations 1 through 3.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 1 and 2 (2002, 2003, 2004)</b>				
Rupp RS 4279RR	54.5	9-18	118	1.0 26
<b>Locations 1 and 2 (2003,2004)</b>				
Rupp RS 4279RR	55.2	9-17	121	1.0 26
<b>Locations 1 and 2 (2004)</b>				
AG 2801 Asgrow	83.7 *	9-21	125	1.0 31
TL 290RR	82.3 *	9-21	125	1.0 27
Hoosier HP 3041RR	79.6	9-20	124	1.0 31
Stine S2702-4	77.5	9-19	123	1.0 27
2724RR/N Garst	77.3	9-19	123	1.0 33
DSR-2801/RR	77.2	9-22	126	1.0 34
Hoosier HP 2824CRR	76.9	9-20	124	1.0 31
DKB 28-53 DeKalb	76.1	9-18	122	1.0 31
Rupp RS 4232NRR	75.9	9-14	118	1.0 27
Rupp RS 4279RR	72.3	9-18	122	1.0 27
D294RR/N Garst	71.3	9-19	123	1.0 35
Grand mean	77.3	9-19	123	1.0 30
BLSD (k=100)	2.9	3	3	ns 2
C.V. (%)	5.8	2	1	5
<b>Locations 1 and 3 (2004)</b>				
Rupp RS 4295RR	89.4 *	9-12	130	1.0 32
Adler 296RRN	89.4 *	9-17	134	1.0 30
Grand mean	89.4	9-15	132	1.0 31
BLSD (k=100)	ns	3	3	ns ns
C.V. (%)	5.3	4	1	7

**Table 16 contd. Results of Roundup Ready® soybean, Maturity Group II, performance trials averaged across Indiana locations 1 through 3.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 2 and 3 (2004)</b>				
V284RR Vigoro	74.7 *	9-19	121	1.0 27
V28N5RR Vigoro	74.6 *	9-21	124	1.0 28
M-328NRR Martin	68.4 *	9-20	123	1.0 26
Grand mean	72.6	9-20	123	1.0 27
BLSD (k=100)	ns	ns	ns	ns ns
C.V. (%)	7.1	5	2	6

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 (3) 1 (erect) to 5 (flat).  
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**Table 17. Results of Roundup Ready® soybean, Maturity Group III, performance trials averaged across Indiana locations 1 through 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 1, 2, 3, 4 and 5 (2004)</b>				
3624RR/N Garst	80.9	9-18	130	1.4 34
<b>Locations 1, 3, 4 and 5(2004)</b>				
3624RR/N Garst	84.2 *	9-15	131	1.5 34
Hoosier HP 3502CRR	81.4 *	9-14	130	1.0 36
Hoosier HP 3934CRR	76.0	9-18	135	1.1 36
Grand mean	80.5	9-16	132	1.2 35
BLSD (k=100)	5.7	3	3	ns ns
C.V. (%)	7.4	5	2	22.0 7
<b>Locations 1, 2, 3 and 4 (2004)</b>				
3624RR/N Garst	82.4	9-20	131	1.3 34

**Table 17 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials, averaged across Indiana locations 1 through 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 1, 2 and 3 (2002, 2003, 2004)</b>				
Beck 323RR	63.5	9-24	124	1.1 30
<b>Locations 1, 2 and 3 (2003, 2004)</b>				
Beck 323RR	65.1	9-24	128	1.0 30
<b>Locations 1, 2 and 3 (2004)</b>				
3624RR/N Garst	82.8 *	9-26	134	1.0 34
AG 3305 Asgrow	82.2 *	9-26	134	1.0 29
DKB 31-51 DeKalb	79.4 *	9-22	130	1.0 29
Beck 323RR	78.6 *	9-22	130	1.0 30
AG 3201 Asgrow	78.5 *	9-20	128	1.0 32
AG 3101 Asgrow	77.7 *	9-21	129	1.0 32
Grand mean	79.9	9-23	131	1.0 31
BLSD (k=100)	ns	2	2	ns 2
C.V. (%)	5.9	3	1	7
<b>Locations 1 and 2 (2002, 2003, 2004)</b>				
Beck 323RR	63.4 *	9-24	124	1.1 31
3212RR/N Garst	60.2 *	9-21	121	1.0 32
Grand mean	61.8	9-23	123	1.0 32
BLSD (k=100)	ns	2	2	ns ns
C.V. (%)	5.8	2	1	26.3 5
<b>Locations 1 and 2 (2003, 2004)</b>				
Beck 323RR	63.9 *	9-23	127	1.0 31
DSR-326/RR	61.9 *	9-25	128	1.0 34
3212RR/N Garst	61.6 *	9-20	124	1.0 32
Grand mean	62.5	9-23	126	1.0 32
BLSD (k=100)	ns	2	2	ns 2
C.V. (%)	6.1	2	1	6
<b>Locations 1 and 2 (2004)</b>				
3624RR/N Garst	81.1 *	9-28	132	1.0 34
3212RR/N Garst	80.9 *	9-22	126	1.0 33
DKB 31-51 DeKalb	80.7 *	9-25	129	1.0 31
DSR-326/RR	79.8 *	9-27	131	1.0 35
AG 3305 Asgrow	79.5 *	9-28	132	1.0 29
Beck 323RR	79.1 *	9-24	128	1.0 30
DSR-3002/RR	78.6 *	9-25	129	1.0 35

**Table 17 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials, averaged across Indiana locations 1 through 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 1 and 2 (2004) continued</b>				
AG 3101 Asgrow	77.8 *	9-22	126	1.0 34
AG 3201 Asgrow	77.5 *	9-22	126	1.0 32
DSR-3000/RR	76.1 *	9-22	126	1.0 30
TL 304RR	74.3	9-25	129	1.0 33
Grand mean	78.7	9-25	129	1.0 32
BLSD (k=100)	5.8	2	2	ns 2
C.V. (%)	4.7	2	1	6
<b>Locations 1 and 3 (2002, 2003, 2004)</b>				
Beck 323RR	65.0	9-22	127	1.0 29
<b>Locations 1 and 3 (2003, 2004)</b>				
Beck 323RR	71.3	9-23	131	1.0 31
<b>Locations 1 and 3 (2004)</b>				
AG 3305 Asgrow	91.6 *	9-23	141	1.0 28
Rupp RS 4314RR	91.2 *	9-12	130	1.0 32
Adler 338RRN	90.9 *	9-20	138	1.0 31
3624RR/N Garst	90.5 *	9-21	139	1.0 33
Hoosier HP 3502CRR	88.8 *	9-21	139	1.0 35
Adler 321RRN	88.4 *	9-19	136	1.0 33
Beck 323RR	87.5 *	9-18	135	1.0 30
AG 3201 Asgrow	86.0 *	9-15	133	1.0 31
DKB 31-51 DeKalb	85.8 *	9-18	136	1.0 29
AG 3101 Asgrow	84.7 *	9-16	134	1.0 31
Hoosier HP 3233CRR	84.1 *	9-16	134	1.0 31
Hoosier HP 3934CRR	83.8 *	9-24	142	1.0 35
Grand mean	87.8	9-19	136	1.0 32
BLSD (k=100)	ns	2	2	ns 6
C.V. (%)	5.1	4	1	7
<b>Locations 1 and 4 (2004)</b>				
3624RR/N Garst	88.0 *	9-13	132	1.6 35
Hoosier HP 3502CRR	83.8 *	9-11	130	1.0 37
Hoosier HP 3934CRR	80.3 *	9-17	137	1.1 39
Grand mean	84.0	9-14	133	1.2 37
BLSD (k=100)	ns	5	5	ns ns
C.V. (%)	4.0	4	1	25.3 6

**Table 17 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials, averaged across Indiana locations 1 through 5.**

Entry name (1)		Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
		bu./A.			in.
<b>Locations 1 and 5 (2004)</b>					
Hoosier HP 3502CRR		84.6 *	9-15	131	37
3624RR/N	Garst	84.6 *	9-17	133	35
Hoosier HP 3934CRR		74.3	9-19	135	39
Grand mean		81.2	9-17	133	37
BLSD (k=100)		4.8	1	1	ns
C.V. (%)		9.4	5	2	18.0
<b>Locations 2, 3, 4 and 5 (2004)</b>					
AG 3602	Asgrow	78.9 *	9-19	128	34
3624RR/N	Garst	77.4 *	9-18	127	34
V38N5RS	Vigoro	76.2 *	9-21	130	31
3824RR/N	Garst	75.0 *	9-20	129	34
DKB 37-51	DeKalb	74.2 *	9-17	126	33
AG 3802	Asgrow	73.7 *	9-19	128	38
DKB 38-52	DeKalb	73.3 *	9-20	129	33
Grand mean		75.5	9-19	128	34
BLSD (k=100)		ns	3	3	0.5
C.V. (%)		5.9	4	1	27.0
<b>Locations 2, 3 and 4 (2004)</b>					
AG 3602	Asgrow	79.3 *	9-21	130	34
3624RR/N	Garst	78.4 *	9-19	128	34
DKB 38-52	DeKalb	76.4 *	9-23	131	33
3824RR/N	Garst	76.2 *	9-22	130	33
V38N5RS	Vigoro	76.1 *	9-22	131	30
DKB 37-51	DeKalb	74.4 *	9-19	127	32
AG 3802	Asgrow	74.1 *	9-21	130	37
Grand mean		76.4	9-21	130	33
BLSD (k=100)		ns	3	3	ns
C.V. (%)		5.5	3	1	17.3
<b>Locations 2 and 3 (2002, 2003, 2004)</b>					
Beck 367NRR		65.6 *	9-30	127	30
3712RR/N	Garst	65.1 *	9-30	127	30
Beck 323RR		62.1 *	9-25	122	30
AG 3401	Asgrow	61.3 *	9-28	126	35
Grand mean		63.5	9-28	126	31
BLSD (k=100)		ns	1	1	ns
C.V. (%)		8.2	2	1	18.2

**Table 17 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials, averaged across Indiana locations 1 through 5.**

Entry name (1)		Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
		bu./A.			in.
<b>Locations 2 and 3 (2003, 2004)</b>					
Beck 367NRR		65.3 *	9-30	130	29
3712RR/N	Garst	64.4 *	9-30	130	29
Beck 375NRR		64.1 *	9-28	128	32
DSR-345/RR		61.3 *	9-26	126	33
DSR-385/RR		61.3 *	9-30	131	30
Beck 323RR		60.0 *	9-24	125	29
Rupp RS 4345RR		59.4 *	9-25	125	28
AG 3401	Asgrow	59.4 *	9-29	129	35
Grand mean		61.9	9-28	128	31
BLSD (k=100)		6.4	2	2	ns
C.V. (%)		7.5	2	1	6
<b>Locations 2 and 3 (2004)</b>					
3712RR/N	Garst	80.3 *	9-29	132	31
Beck 367NRR		79.9 *	9-30	132	31
V36N5RR	Vigoro	79.0 *	9-29	132	34
Beck 354NRR		78.1 *	9-29	132	34
M-435NRR	Martin	78.0 *	9-29	132	35
M-533RR	Martin	77.9 *	9-24	126	31
DSR-3600/RR		77.2 *	9-29	131	32
DKB 38-52	DeKalb	77.2 *	9-29	132	32
3624RR/N	Garst	76.9 *	9-27	130	34
DSR-3501/RR		76.8 *	9-27	130	35
V354RR	Vigoro	76.6 *	9-25	128	33
3824RR/N	Garst	76.3 *	9-29	132	33
DSR-3500/RR		76.2 *	9-29	131	34
DSR-385/RR		76.2 *	9-30	132	31
V38N5RS	Vigoro	76.1 *	9-29	132	30
Beck 375NRR		76.0 *	9-27	130	33
M-538NRR	Martin	75.8 *	9-30	132	32
AG 3305	Asgrow	75.6 *	9-29	131	29
Rupp RS 4345RR		75.3 *	9-25	127	29
AG 3602	Asgrow	74.9 *	9-29	132	33
DSR-345/RR		74.4 *	9-25	128	33
DKB 36-52	DeKalb	74.4 *	9-28	131	33
DKB 37-51	DeKalb	74.0 *	9-27	129	32
V32N3RR	Vigoro	73.8 *	9-24	126	32
DSR-3800/RR		73.4 *	9-29	132	34
Stine S3532-4		72.8 *	9-25	127	30
AG 3401	Asgrow	72.4 *	9-28	130	35
AG 3201	Asgrow	72.1 *	9-22	125	31
DKB 34-51	DeKalb	72.1 *	9-25	127	33

**Table 17 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials, averaged across Indiana locations 1 through 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 2 and 3 (2004) continued</b>				
DKB 31-51 DeKalb	71.6 *	9-24	126	1.0 28
AG 3101 Asgrow	70.6 *	9-23	126	1.0 31
PSF 3304NNRR	70.3 *	9-27	129	1.0 34
AG 3802 Asgrow	70.0 *	9-30	132	1.0 36
PSF 3103RR	69.6 *	9-23	125	1.0 28
Beck 323RR	69.3 *	9-24	126	1.0 29
Grand mean	74.9	9-27	130	1.0 32
BLSD (k=100)	ns	3	3	ns 2
C.V. (%)	6.5	3	1	8.3 6
<b>Locations 2 and 3 (2004) ranked by maturity</b>				
AG 3201 Asgrow	72.1 *	9-22	125	1.0 31
AG 3101 Asgrow	70.6 *	9-23	126	1.0 31
PSF 3103RR	69.6 *	9-23	125	1.0 28
M-533RR Martin	77.9 *	9-24	126	1.0 31
V32N3RR Vigoro	73.8 *	9-24	126	1.0 32
DKB 31-51 DeKalb	71.6 *	9-24	126	1.0 28
Beck 323RR	69.3 *	9-24	126	1.0 29
V354RR Vigoro	76.6 *	9-25	128	1.0 33
Rupp RS 4345RR	75.3 *	9-25	127	1.0 29
DSR-345/RR	74.4 *	9-25	128	1.0 33
Stine S3532-4	72.8 *	9-25	127	1.0 30
DKB 34-51 DeKalb	72.1 *	9-25	127	1.0 33
3624RR/N Garst	76.9 *	9-27	130	1.0 34
DSR-3501/RR	76.8 *	9-27	130	1.1 35
Beck 375NRR	76.0 *	9-27	130	1.0 33
DKB 37-51 DeKalb	74.0 *	9-27	129	1.0 32
PSF 3304NNRR	70.3 *	9-27	129	1.0 34
DKB 36-52 DeKalb	74.4 *	9-28	131	1.0 33
AG 3401 Asgrow	72.4 *	9-28	130	1.0 35
3712RR/N Garst	80.3 *	9-29	132	1.0 31
V36N5RR Vigoro	79.0 *	9-29	132	1.0 34
Beck 354NRR	78.1 *	9-29	132	1.0 34
M-435NRR Martin	78.0 *	9-29	132	1.1 35
DSR-3600/RR	77.2 *	9-29	131	1.0 32
DKB 38-52 DeKalb	77.2 *	9-29	132	1.0 32

**Table 17 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials, averaged across Indiana locations 1 through 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 2 and 3 (2004) ranked by maturity, continued</b>				
3824RR/N Garst	76.3 *	9-29	132	1.0 33
DSR-3500/RR	76.2 *	9-29	131	1.0 34
V38N5RS Vigoro	76.1 *	9-29	132	1.0 30
AG 3305 Asgrow	75.6 *	9-29	131	1.0 29
AG 3602 Asgrow	74.9 *	9-29	132	1.0 33
DSR-3800/RR	73.4 *	9-29	132	1.0 34
Beck 367NRR	79.9 *	9-30	132	1.0 31
DSR-385/RR	76.2 *	9-30	132	1.0 31
M-538NRR Martin	75.8 *	9-30	132	1.0 32
AG 3802 Asgrow	70.0 *	9-30	132	1.0 36
Grand mean	74.9	9-27	130	1.0 32
BLSD (k=100)	ns	3	3	ns 2
C.V. (%)	6.5	3	1	8.3 6
<b>Locations 2 and 4 (2004)</b>				
AG 3602 Asgrow	74.5 *	9-20	124	1.4 35
3624RR/N Garst	74.4 *	9-19	123	1.6 35
DKB 37-51 DeKalb	71.9 *	9-18	123	1.4 34
DKB 38-52 DeKalb	71.2 *	9-22	127	1.0 34
3824RR/N Garst	70.4 *	9-21	126	1.1 34
AG 3802 Asgrow	70.0 *	9-20	125	1.1 38
V38N5RS Vigoro	68.4 *	9-22	126	1.0 31
Grand mean	71.5	9-20	125	1.2 34
BLSD (k=100)	ns	ns	ns	ns 3
C.V. (%)	6.1	3	1	20.2 7
<b>Locations 2 and 5 (2004)</b>				
Beck 375NRR	73.1 *	9-23	124	1.5 35
TL 334RR	72.5 *	9-22	122	1.3 36
Beck 367NRR	72.0 *	9-24	125	1.9 31
TL 342RR	71.6 *	9-20	121	2.0 30
3624RR/N Garst	71.0 *	9-23	124	1.4 35
DKB 37-51 DeKalb	70.9 *	9-24	124	1.4 35
AG 3602 Asgrow	69.4 *	9-24	124	1.0 35
V38N5RS Vigoro	68.6 *	9-25	125	1.0 32
3824RR/N Garst	68.2 *	9-23	124	1.4 35
TL 353RR	67.2 *	9-21	121	1.0 33
TL 364RR	66.4 *	9-26	127	2.1 39

**Table 17 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials, averaged across Indiana locations 1 through 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 2 and 5 (2004) continued</b>				
DKB 38-52 DeKalb	65.9 *	9-23	123	1.1 34
PSF 3405RR	65.1 *	9-22	123	1.1 35
AG 3802 Asgrow	65.0 *	9-24	124	1.0 38
PSF 3903NRR	63.8 *	9-24	124	1.8 39
Grand mean	68.7	9-23	124	1.4 35
B LSD (k=100)	ns	3	3	ns 3
C.V. (%)	8.2	3	1	35.2 5

<b>Locations 2 and 5 (2004) ranked by maturity</b>				
TL 342RR	71.6 *	9-20	121	2.0 30
TL 353RR	67.2 *	9-21	121	1.0 33
TL 334RR	72.5 *	9-22	122	1.3 36
PSF 3405RR	65.1 *	9-22	123	1.1 35
Beck 375NRR	73.1 *	9-23	124	1.5 35
3624RR/N Garst	71.0 *	9-23	124	1.4 35
3824RR/N Garst	68.2 *	9-23	124	1.4 35
DKB 38-52 DeKalb	65.9 *	9-23	123	1.1 34
Beck 367NRR	72.0 *	9-24	125	1.9 31
DKB 37-51 DeKalb	70.9 *	9-24	124	1.4 35
AG 3602 Asgrow	69.4 *	9-24	124	1.0 35
AG 3802 Asgrow	65.0 *	9-24	124	1.0 38
PSF 3903NRR	63.8 *	9-24	124	1.8 39
V38N5RS Vigoro	68.6 *	9-25	125	1.0 32
TL 364RR	66.4 *	9-26	127	2.1 39
Grand mean	68.7	9-23	124	1.4 35
B LSD (k=100)	ns	3	3	ns 3
C.V. (%)	8.2	3	1	35.2 5

<b>Locations 3, 4 and 5 (2004)</b>				
AG 3602 Asgrow	84.8 *	9-14	130	1.3 34
V38N5RS Vigoro	81.4 *	9-16	132	1.0 32
3624RR/N Garst	80.8 *	9-12	128	1.7 34
AG 3802 Asgrow	79.1 *	9-14	130	1.1 38
3824RR/N Garst	78.4 *	9-15	131	1.3 34

**Table 17 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials, averaged across Indiana locations 1 through 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 3, 4 and 5 (2004) continued</b>				
Hoosier HP 3502CRR	77.0	9-12	128	1.0 36
DKB 37-51 DeKalb	76.1	9-11	127	1.5 33
DKB 38-52 DeKalb	75.1	9-15	131	1.1 33
Hoosier HP 3934CRR	72.6	9-16	132	1.1 35
Grand mean	78.4	9-14	130	1.2 34
B LSD (k=100)	7.3	4	4	0.6 2
C.V. (%)	7.4	5	2	29.1 7

<b>Locations 3 and 4 (2004)</b>				
AG 3602 Asgrow	88.4 *	9-15	133	1.4 33
Adler 354RRN	86.6 *	9-12	130	1.0 31
3624RR/N Garst	83.8 *	9-12	130	1.6 34
V38N5RS Vigoro	83.8 *	9-16	134	1.0 30
Adler 385RRN	83.0 *	9-17	135	1.1 32
AG 3802 Asgrow	82.4 *	9-15	133	1.1 37
3824RR/N Garst	81.8 *	9-16	134	1.1 33
DKB 38-52 DeKalb	80.7 *	9-17	135	1.0 33
Adler 374RRN	79.0 *	9-11	129	1.3 32
Hoosier HP 3502CRR	78.1 *	9-12	130	1.0 36
Hoosier HP 3934CRR	77.8 *	9-17	135	1.1 33
DKB 37-51 DeKalb	77.4 *	9-11	129	1.4 31
Grand mean	81.9	9-14	132	1.2 33
B LSD (k=100)	12.1	3	3	ns 3
C.V. (%)	6.0	5	2	21.4 8

<b>Locations 3 and 5 (2004)</b>				
Beck 367NRR	84.4 *	9-19	133	1.9 32
V38N5RS Vigoro	84.1 *	9-20	134	1.0 32
AG 3602 Asgrow	83.3 *	9-19	133	1.0 33
Beck 375NRR	82.5 *	9-17	131	1.5 33
3624RR/N Garst	80.4 *	9-17	131	1.4 34
Hoosier HP 3715RR	80.1 *	9-18	132	2.0 37
3824RR/N Garst	79.6 *	9-18	132	1.4 34
Hoosier HP 3502CRR	78.9 *	9-17	131	1.0 35
AG 3802 Asgrow	77.4 *	9-18	132	1.0 37
DKB 37-51 DeKalb	76.4 *	9-16	130	1.4 33
Hoosier HP 3433CRR	76.1 *	9-15	129	1.1 30
DKB 38-52 DeKalb	75.4 *	9-18	132	1.1 32
Hoosier HP 3934CRR	71.8	9-19	133	1.0 33
Grand mean	79.3	9-18	132	1.3 33
B LSD (k=100)	10.8	4	4	ns 4
C.V. (%)	7.6	4	2	34.6 5

**Table 17 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials, averaged across Indiana locations 1 through 5.**

Entry name (1)		Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
		bu./A.			in.
<b>Locations 4 and 5 (2003, 2004)</b>					
AG 3905	Asgrow	70.1 *	9-21	126	1.3 36
3824RR/N	Garst	69.0 *	9-18	123	1.4 35
Stine S3832-4		68.6 *	9-20	125	1.6 34
SC Abraham NRR		67.7 *	9-21	126	1.0 33
Grand mean		68.9	9-20	125	1.3 35
BLSD (k=100)		ns		ns	3
C.V. (%)		7.3		35.9	6
<b>Locations 4 and 5 (2004)</b>					
AG 3602	Asgrow	82.9 *	9-09	125	1.4 35
AG 3906	Asgrow	82.1 *	9-15	131	1.0 33
AG 3905	Asgrow	81.0 *	9-14	130	1.4 39
Stine S3832-4		78.2 *	9-12	128	2.0 34
BioGene BG 3703NRR		78.1 *	9-07	123	1.8 35
3624RR/N	Garst	78.0 *	9-08	124	2.0 35
AG 3802	Asgrow	77.4 *	9-09	125	1.1 40
V38N5RS	Vigoro	76.4 *	9-12	128	1.0 33
SC Abraham NRR		76.4 *	9-15	131	1.0 35
CPS 6373NRR		76.3 *	9-07	123	1.9 35
TL 382RR		76.3 *	9-07	123	1.8 35
V39N4RR	Vigoro	76.2 *	9-10	126	1.8 34
Steyer 3720RR		74.7 *	9-09	125	2.3 36
DKB 37-51	DeKalb	74.4 *	9-07	123	1.8 34
Hoosier HP 3502CRR		73.9 *	9-06	122	1.0 38
3824RR/N	Garst	73.8 *	9-10	126	1.5 35
SC Stephen NRR		70.7 *	9-13	129	1.6 34
BioGene BG 3620NRR		70.6 *	9-12	128	1.3 29
DKB 38-52	DeKalb	69.3 *	9-11	127	1.1 34
CPS 6396RR		68.8 *	9-09	125	1.6 31
Hoosier HP 3934CRR		68.3 *	9-12	128	1.1 38
TL 378RR		68.2 *	9-12	128	1.6 28
TL 389RR		66.4 *	9-10	126	2.3 39
Grand mean		74.7	9-10	126	1.5 35
BLSD (k=100)		17.5	5	5	1.4 4
C.V. (%)		8.5	5	2	31.9 7

**Table 17 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials, averaged across Indiana locations 1 through 5.**

Entry name (1)		Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
		bu./A.			in.
<b>Locations 4 and 5 (2004) ranked by maturity</b>					
Hoosier HP 3502CRR		73.9 *	9-06	122	1.0 38
BioGene BG 3703NRR		78.1 *	9-07	123	1.8 35
CPS 6373NRR		76.3 *	9-07	123	1.9 35
TL 382RR		76.3 *	9-07	123	1.8 35
DKB 37-51	DeKalb	74.4 *	9-07	123	1.8 34
3624RR/N	Garst	78.0 *	9-08	124	2.0 35
AG 3602	Asgrow	82.9 *	9-09	125	1.4 35
AG 3802	Asgrow	77.4 *	9-09	125	1.1 40
Steyer 3720RR		74.7 *	9-09	125	2.3 36
CPS 6396RR		68.8 *	9-09	125	1.6 31
V39N4RR	Vigoro	76.2 *	9-10	126	1.8 34
3824RR/N	Garst	73.8 *	9-10	126	1.5 35
TL 389RR		66.4 *	9-10	126	2.3 39
DKB 38-52	DeKalb	69.3 *	9-11	127	1.1 34
Stine S3832-4		78.2 *	9-12	128	2.0 34
V38N5RS	Vigoro	76.4 *	9-12	128	1.0 33
BioGene BG 3620NRR		70.6 *	9-12	128	1.3 29
Hoosier HP 3934CRR		68.3 *	9-12	128	1.1 38
TL 378RR		68.2 *	9-12	128	1.6 28
SC Stephen NRR		70.7 *	9-13	129	1.6 34
AG 3905	Asgrow	81.0 *	9-14	130	1.4 39
AG 3906	Asgrow	82.1 *	9-15	131	1.0 33
SC Abraham NRR		76.4 *	9-15	131	1.0 35
Grand mean		74.7	9-10	126	1.5 35
BLSD (k=100)		17.5	5	5	1.4 4
C.V. (%)		8.5	5	2	31.9 7

(1) Proprietary names are company or brand names, generally associated in the trade with variety, brand, or blend names.

(2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.

(3) 1 (erect) to 5 (flat).

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**Table 18. Results of Roundup Ready® soybean, Maturity Group III, performance trials averaged across Indiana locations 2 through 5.**

Entry name (1)		Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height	
		bu./A.			in.	
<b>Locations 2, 3, 4 and 5 (2004)</b>						
AG 3602	Asgrow	78.9 *	9-19	128	1.2	34
3624RR/N	Garst	77.4 *	9-18	127	1.5	34
V38N5RS	Vigoro	76.2 *	9-21	130	1.0	31
3824RR/N	Garst	75.0 *	9-20	129	1.3	34
DKB 37-51	DeKalb	74.2 *	9-17	126	1.4	33
AG 3802	Asgrow	73.7 *	9-19	128	1.1	38
DKB 38-52	DeKalb	73.3 *	9-20	129	1.1	33
Grand mean		75.5	9-19	128	1.2	34
BLSD (k=100)		ns	3	3	0.5	1
C.V. (%)		5.9	4	1	27.0	6
<b>Locations 2, 3 and 4 (2004)</b>						
AG 3602	Asgrow	79.3 *	9-21	130	1.3	34
3624RR/N	Garst	78.4 *	9-19	128	1.4	34
DKB 38-52	DeKalb	76.4 *	9-23	131	1.0	33
3824RR/N	Garst	76.2 *	9-22	130	1.1	33
V38N5RS	Vigoro	76.1 *	9-22	131	1.0	30
DKB 37-51	DeKalb	74.4 *	9-19	127	1.3	32
AG 3802	Asgrow	74.1 *	9-21	130	1.1	37
Grand mean		76.4	9-21	130	1.2	33
BLSD (k=100)		ns	3	3	ns	2
C.V. (%)		5.5	3	1	17.3	6
<b>Locations 2, 3 and 5 (2004)</b>						
Beck 367NRR		78.8 *	9-24	130	1.6	31
Beck 375NRR		77.2 *	9-22	128	1.3	34
V38N5RS	Vigoro	76.2 *	9-25	130	1.0	31
3624RR/N	Garst	76.1 *	9-22	128	1.3	34
AG 3602	Asgrow	75.8 *	9-24	129	1.0	34
3824RR/N	Garst	74.7 *	9-23	129	1.3	34
DKB 37-51	DeKalb	73.8 *	9-22	128	1.3	33
DKB 38-52	DeKalb	72.8 *	9-23	129	1.1	33
AG 3802	Asgrow	70.8 *	9-24	130	1.0	37
Grand mean		75.1	9-23	129	1.2	33
BLSD (k=100)		ns	3	3	ns	2
C.V. (%)		6.2	3	1	32.9	5

**Table 18 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials averaged across Indiana locations 2 through 5.**

Entry name (1)		Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height	
		bu./A.			in.	
<b>Locations 2 and 3 (2002, 2003, 2004)</b>						
Beck 367NRR		65.6 *	9-30	127	1.0	30
3712RR/N	Garst	65.1 *	9-30	127	1.1	30
Beck 323RR		62.1 *	9-25	122	1.1	30
AG 3401	Asgrow	61.3 *	9-28	126	1.1	35
Grand mean		63.5	9-28	126	1.1	31
BLSD (k=100)		ns	1	1	ns	2
C.V. (%)		8.2	2	1	18.2	8
<b>Locations 2 and 3 (2003, 2004)</b>						
Beck 367NRR		65.3 *	9-30	130	1.0	29
3712RR/N	Garst	64.4 *	9-30	130	1.0	29
Beck 375NRR		64.1 *	9-28	128	1.0	32
DSR-345/RR		61.3 *	9-26	126	1.0	33
DSR-385/RR		61.3 *	9-30	131	1.0	30
Beck 323RR		60.0 *	9-24	125	1.0	29
Rupp RS 4345RR		59.4 *	9-25	125	1.0	28
AG 3401	Asgrow	59.4 *	9-29	129	1.0	35
Grand mean		61.9	9-28	128	1.0	31
BLSD (k=100)		6.4	2	2	ns	2
C.V. (%)		7.5	2	1		6
<b>Locations 2 and 3 (2004)</b>						
3712RR/N	Garst	80.3 *	9-29	132	1.0	31
Beck 367NRR		79.9 *	9-30	132	1.0	31
V36N5RR	Vigoro	79.0 *	9-29	132	1.0	34
Beck 354NRR		78.1 *	9-29	132	1.0	34
M-435NRR	Martin	78.0 *	9-29	132	1.1	35
M-533RR	Martin	77.9 *	9-24	126	1.0	31
DSR-3600/RR		77.2 *	9-29	131	1.0	32
DKB 38-52	DeKalb	77.2 *	9-29	132	1.0	32
3624RR/N	Garst	76.9 *	9-27	130	1.0	34
DSR-3501/RR		76.8 *	9-27	130	1.1	35
V354RR	Vigoro	76.6 *	9-25	128	1.0	33
3824RR/N	Garst	76.3 *	9-29	132	1.0	33
DSR-3500/RR		76.2 *	9-29	131	1.0	34
DSR-385/RR		76.2 *	9-30	132	1.0	31
V38N5RS	Vigoro	76.1 *	9-29	132	1.0	30
Beck 375NRR		76.0 *	9-27	130	1.0	33
M-538NRR	Martin	75.8 *	9-30	132	1.0	32
AG 3305	Asgrow	75.6 *	9-29	131	1.0	29
Rupp RS 4345RR		75.3 *	9-25	127	1.0	29

**Table 18 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials averaged across Indiana locations 2 through 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 2 and 3 (2004) continued</b>				
AG 3602 Asgrow	74.9 *	9-29	132	1.0 33
DSR-345/RR	74.4 *	9-25	128	1.0 33
DKB 36-52 DeKalb	74.4 *	9-28	131	1.0 33
DKB 37-51 DeKalb	74.0 *	9-27	129	1.0 32
V32N3RR Vigoro	73.8 *	9-24	126	1.0 32
DSR-3800/RR	73.4 *	9-29	132	1.0 34
Stine S3532-4	72.8 *	9-25	127	1.0 30
AG 3401 Asgrow	72.4 *	9-28	130	1.0 35
AG 3201 Asgrow	72.1 *	9-22	125	1.0 31
DKB 34-51 DeKalb	72.1 *	9-25	127	1.0 33
DKB 31-51 DeKalb	71.6 *	9-24	126	1.0 28
AG 3101 Asgrow	70.6 *	9-23	126	1.0 31
PSF 3304NNRR	70.3 *	9-27	129	1.0 34
AG 3802 Asgrow	70.0 *	9-30	132	1.0 36
PSF 3103RR	69.6 *	9-23	125	1.0 28
Beck 323RR	69.3 *	9-24	126	1.0 29
Grand mean	74.9	9-27	130	1.0 32
BLSD (k=100)	ns	3	3	ns 2
C.V. (%)	6.5	3	1	8.3 6
<b>Locations 2 and 3 (2004) ranked by maturity</b>				
AG 3201 Asgrow	72.1 *	9-22	125	1.0 31
AG 3101 Asgrow	70.6 *	9-23	126	1.0 31
PSF 3103RR	69.6 *	9-23	125	1.0 28
M-533RR Martin	77.9 *	9-24	126	1.0 31
V32N3RR Vigoro	73.8 *	9-24	126	1.0 32
DKB 31-51 DeKalb	71.6 *	9-24	126	1.0 28
Beck 323RR	69.3 *	9-24	126	1.0 29
V354RR Vigoro	76.6 *	9-25	128	1.0 33
Rupp RS 4345RR	75.3 *	9-25	127	1.0 29
DSR-345/RR	74.4 *	9-25	128	1.0 33
Stine S3532-4	72.8 *	9-25	127	1.0 30
DKB 34-51 DeKalb	72.1 *	9-25	127	1.0 33
3624RR/N Garst	76.9 *	9-27	130	1.0 34
DSR-3501/RR	76.8 *	9-27	130	1.1 35
Beck 375NRR	76.0 *	9-27	130	1.0 33
DKB 37-51 DeKalb	74.0 *	9-27	129	1.0 32
PSF 3304NNRR	70.3 *	9-27	129	1.0 34

**Table 18 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials averaged across Indiana locations 2 through 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 2 and 3 (2004) ranked by maturity continued</b>				
DKB 36-52 DeKalb	74.4 *	9-28	131	1.0 33
AG 3401 Asgrow	72.4 *	9-28	130	1.0 35
3712RR/N Garst	80.3 *	9-29	132	1.0 31
V36N5RR Vigoro	79.0 *	9-29	132	1.0 34
Beck 354NRR	78.1 *	9-29	132	1.0 34
M-435NRR Martin	78.0 *	9-29	132	1.1 35
DSR-3600/RR	77.2 *	9-29	131	1.0 32
DKB 38-52 DeKalb	77.2 *	9-29	132	1.0 32
3824RR/N Garst	76.3 *	9-29	132	1.0 33
DSR-3500/RR	76.2 *	9-29	131	1.0 34
V38N5RS Vigoro	76.1 *	9-29	132	1.0 30
AG 3305 Asgrow	75.6 *	9-29	131	1.0 29
AG 3602 Asgrow	74.9 *	9-29	132	1.0 33
DSR-3800/RR	73.4 *	9-29	132	1.0 34
Beck 367NRR	79.9 *	9-30	132	1.0 31
DSR-385/RR	76.2 *	9-30	132	1.0 31
M-538NRR Martin	75.8 *	9-30	132	1.0 32
AG 3802 Asgrow	70.0 *	9-30	132	1.0 36
Grand mean	74.9	9-27	130	1.0 32
BLSD (k=100)	ns	3	3	ns 2
C.V. (%)	6.5	3	1	8.3 6
<b>Locations 2 and 4 (2004)</b>				
AG 3602 Asgrow	74.5 *	9-20	124	1.4 35
3624RR/N Garst	74.4 *	9-19	123	1.6 35
DKB 37-51 DeKalb	71.9 *	9-18	123	1.4 34
DKB 38-52 DeKalb	71.2 *	9-22	127	1.0 34
3824RR/N Garst	70.4 *	9-21	126	1.1 34
AG 3802 Asgrow	70.0 *	9-20	125	1.1 38
V38N5RS Vigoro	68.4 *	9-22	126	1.0 31
Grand mean	71.5	9-20	125	1.2 34
BLSD (k=100)	ns	ns	ns	ns 3
C.V. (%)	6.1	3	1	20.2 7

**Table 18 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials averaged across Indiana locations 2 through 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 2 and 5 (2004)</b>				
Beck 375NRR	73.1 *	9-23	124	1.5 35
TL 334RR	72.5 *	9-22	122	1.3 36
Beck 367NRR	72.0 *	9-24	125	1.9 31
TL 342RR	71.6 *	9-20	121	2.0 30
3624RR/N Garst	71.0 *	9-23	124	1.4 35
DKB 37-51 DeKalb	70.9 *	9-24	124	1.4 35
AG 3602 Asgrow	69.4 *	9-24	124	1.0 35
V38N5RS Vigoro	68.6 *	9-25	125	1.0 32
3824RR/N Garst	68.2 *	9-23	124	1.4 35
TL 353RR	67.2 *	9-21	121	1.0 33
TL 364RR	66.4 *	9-26	127	2.1 39
DKB 38-52 DeKalb	65.9 *	9-23	123	1.1 34
PSF 3405RR	65.1 *	9-22	123	1.1 35
AG 3802 Asgrow	65.0 *	9-24	124	1.0 38
PSF 3903NRR	63.8 *	9-24	124	1.8 39
Grand mean	68.7	9-23	124	1.4 35
BLSD (k=100)	ns	3	3	ns 3
C.V. (%)	8.2	3	1	35.2 5
<b>Locations 2 and 5 (2004) ranked by maturity</b>				
TL 342RR	71.6 *	9-20	121	2.0 30
TL 353RR	67.2 *	9-21	121	1.0 33
TL 334RR	72.5 *	9-22	122	1.3 36
PSF 3405RR	65.1 *	9-22	123	1.1 35
Beck 375NRR	73.1 *	9-23	124	1.5 35
3624RR/N Garst	71.0 *	9-23	124	1.4 35
3824RR/N Garst	68.2 *	9-23	124	1.4 35
DKB 38-52 DeKalb	65.9 *	9-23	123	1.1 34
Beck 367NRR	72.0 *	9-24	125	1.9 31
DKB 37-51 DeKalb	70.9 *	9-24	124	1.4 35
AG 3602 Asgrow	69.4 *	9-24	124	1.0 35
AG 3802 Asgrow	65.0 *	9-24	124	1.0 38
PSF 3903NRR	63.8 *	9-24	124	1.8 39
V38N5RS Vigoro	68.6 *	9-25	125	1.0 32
TL 364RR	66.4 *	9-26	127	2.1 39
Grand mean	68.7	9-23	124	1.4 35
BLSD (k=100)	ns	3	3	ns 3
C.V. (%)	8.2	3	1	35.2 5

**Table 18 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials averaged across Indiana locations 2 through 5.**

- (1) Proprietary names are company or brand names, generally associated in the trade with variety, brand, or blend names.  
(2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.  
(3) 1 (erect) to 5 (flat).  
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**Table 19. Results of Roundup Ready® soybean, Maturity Group III, performance trials averaged across Indiana locations 3 through 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 3, 4 and 5 (2004)</b>				
AG 3602 Asgrow	84.8 *	9-14	130	1.3 34
V38N5RS Vigoro	81.4 *	9-16	132	1.0 32
3624RR/N Garst	80.8 *	9-12	128	1.7 34
AG 3802 Asgrow	79.1 *	9-14	130	1.1 38
3824RR/N Garst	78.4 *	9-15	131	1.3 34
Hoosier HP 3502CRR	77.0	9-12	128	1.0 36
DKB 37-51 DeKalb	76.1	9-11	127	1.5 33
DKB 38-52 DeKalb	75.1	9-15	131	1.1 33
Hoosier HP 3934CRR	72.6	9-16	132	1.1 35
Grand mean	78.4	9-14	130	1.2 34
BLSD (k=100)	7.3	4	4	0.6 2
C.V. (%)	7.4	5	2	29.1 7
<b>Locations 3 and 4 (2004)</b>				
AG 3602 Asgrow	88.4 *	9-15	133	1.4 33
Adler 354RRN	86.6 *	9-12	130	1.0 31
3624RR/N Garst	83.8 *	9-12	130	1.6 34
V38N5RS Vigoro	83.8 *	9-16	134	1.0 30
Adler 385RRN	83.0 *	9-17	135	1.1 32
AG 3802 Asgrow	82.4 *	9-15	133	1.1 37
3824RR/N Garst	81.8 *	9-16	134	1.1 33
DKB 38-52 DeKalb	80.7 *	9-17	135	1.0 33
Adler 374RRN	79.0 *	9-11	129	1.3 32
Hoosier HP 3502CRR	78.1 *	9-12	130	1.0 36
Hoosier HP 3934CRR	77.8 *	9-17	135	1.1 33
DKB 37-51 DeKalb	77.4 *	9-11	129	1.4 31
Grand mean	81.9	9-14	132	1.2 33
BLSD (k=100)	12.1	3	3	ns 3
C.V. (%)	6.0	5	2	21.4 8

**Table 19 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials averaged across Indiana locations 3 through 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 3 and 5 (2004)</b>				
Beck 367NRR	84.4 *	9-19	133	1.9
V38N5RS Vigoro	84.1 *	9-20	134	1.0
AG 3602 Asgrow	83.3 *	9-19	133	1.0
Beck 375NRR	82.5 *	9-17	131	1.5
3624RR/N Garst	80.4 *	9-17	131	1.4
Hoosier HP 3715RR	80.1 *	9-18	132	2.0
3824RR/N Garst	79.6 *	9-18	132	1.4
Hoosier HP 3502CRR	78.9 *	9-17	131	1.0
AG 3802 Asgrow	77.4 *	9-18	132	1.0
DKB 37-51 DeKalb	76.4 *	9-16	130	1.4
Hoosier HP 3433CRR	76.1 *	9-15	129	1.1
DKB 38-52 DeKalb	75.4 *	9-18	132	1.1
Hoosier HP 3934CRR	71.8	9-19	133	1.0
Grand mean	79.3	9-18	132	1.3
BLSD (k=100)	10.8	4	4	ns
C.V. (%)	7.6	4	2	34.6

<b>Locations 4 and 5 (2003, 2004)</b>				
AG 3905 Asgrow	70.1 *	9-21	126	1.3
3824RR/N Garst	69.0 *	9-18	123	1.4
Stine S3832-4	68.6 *	9-20	125	1.6
SC Abraham NRR	67.7 *	9-21	126	1.0
Grand mean	68.9	9-20	125	1.3
BLSD (k=100)	ns			ns
C.V. (%)	7.3			35.9

<b>Locations 4 and 5 (2004)</b>				
AG 3602 Asgrow	82.9 *	9-09	125	1.4
AG 3906 Asgrow	82.1 *	9-15	131	1.0
AG 3905 Asgrow	81.0 *	9-14	130	1.4
Stine S3832-4	78.2 *	9-12	128	2.0
BioGene BG 3703NRR	78.1 *	9-07	123	1.8
3624RR/N Garst	78.0 *	9-08	124	2.0
AG 3802 Asgrow	77.4 *	9-09	125	1.1
V38N5RS Vigoro	76.4 *	9-12	128	1.0
SC Abraham NRR	76.4 *	9-15	131	1.0
CPS 6373NRR	76.3 *	9-07	123	1.9
TL 382RR	76.3 *	9-07	123	1.8
V39N4RR Vigoro	76.2 *	9-10	126	1.8

**Table 19 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials averaged across Indiana locations 3 through 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 4 and 5 (2004) continued</b>				
Steyer 3720RR	74.7 *	9-09	125	2.3
DKB 37-51 DeKalb	74.4 *	9-07	123	1.8
Hoosier HP 3502CRR	73.9 *	9-06	122	1.0
3824RR/N Garst	73.8 *	9-10	126	1.5
SC Stephen NRR	70.7 *	9-13	129	1.6
BioGene BG 3620NRR	70.6 *	9-12	128	1.3
DKB 38-52 DeKalb	69.3 *	9-11	127	1.1
CPS 6396RR	68.8 *	9-09	125	1.6
Hoosier HP 3934CRR	68.3 *	9-12	128	1.1
TL 378RR	68.2 *	9-12	128	1.6
TL 389RR	66.4 *	9-10	126	2.3
Grand mean	74.7	9-10	126	1.5
BLSD (k=100)	17.5	5	5	1.4
C.V. (%)	8.5	5	2	31.9

<b>Locations 4 and 5 (2004) ranked by maturity</b>				
Hoosier HP 3502CRR	73.9 *	9-06	122	1.0
BioGene BG 3703NRR	78.1 *	9-07	123	1.8
CPS 6373NRR	76.3 *	9-07	123	1.9
TL 382RR	76.3 *	9-07	123	1.8
DKB 37-51 DeKalb	74.4 *	9-07	123	1.8
3624RR/N Garst	78.0 *	9-08	124	2.0
AG 3602 Asgrow	82.9 *	9-09	125	1.4
AG 3802 Asgrow	77.4 *	9-09	125	1.1
Steyer 3720RR	74.7 *	9-09	125	2.3
CPS 6396RR	68.8 *	9-09	125	1.6
V39N4RR Vigoro	76.2 *	9-10	126	1.8
3824RR/N Garst	73.8 *	9-10	126	1.5
TL 389RR	66.4 *	9-10	126	2.3
DKB 38-52 DeKalb	69.3 *	9-11	127	1.1
Stine S3832-4	78.2 *	9-12	128	2.0
V38N5RS Vigoro	76.4 *	9-12	128	1.0
BioGene BG 3620NRR	70.6 *	9-12	128	1.3
Hoosier HP 3934CRR	68.3 *	9-12	128	1.1
TL 378RR	68.2 *	9-12	128	1.6

**Table 19 contd. Results of Roundup Ready® soybean, Maturity Group III, performance trials averaged across Indiana locations 3 through 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Locations 4 and 5 (2004) ranked by maturity continued</b>				
SC Stephen NRR	70.7 *	9-13	129	1.6 34
AG 3905 Asgrow	81.0 *	9-14	130	1.4 39
AG 3906 Asgrow	82.1 *	9-15	131	1.0 33
SC Abraham NRR	76.4 *	9-15	131	1.0 35
Grand mean	74.7	9-10	126	1.5 35
BLSD (k=100)	17.5	5	5	1.4 4
C.V. (%)	8.5	5	2	31.9 7

(1) Proprietary names are company or brand names, generally associated in the trade with variety, brand, or blend names.

(2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.

(3) 1 (erect) to 5 (flat).

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**Table 20. Results of Roundup Ready® soybean, Maturity Group IV, performance trials averaged across Indiana locations 4 and 5.**

Entry name (1)	Yield est.(2)	Maturity date-days	Lodging score(3)	Plant height
	bu./A.			in.
<b>Two-year average (2003, 2004)</b>				
SC Michael NRR/STS	69.2	9-23	128	1.1 33
<b>2004 results</b>				
CPS 6413NRR	83.6 *	9-15	131	1.0 35
V42N3RR Vigoro	80.2 *	9-14	130	1.0 34
4212RR/STS/N Garst	78.1 *	9-14	130	1.0 32
SC Michael NRR/STS	76.7 *	9-16	132	1.0 35
CPS 6401NRR	76.5 *	9-12	128	1.0 33
4112RR/N Garst	75.4 *	9-12	128	1.0 33
BioGene BG 4200NRRST	75.2 *	9-15	131	1.0 32
Steyer 4000RR SCN	74.4 *	9-10	126	1.0 32
Steyer 4200RR SCN	72.9 *	9-18	134	1.9 44
SC Silas NRR	67.1	9-24	140	1.3 40
Beck 434NRR	62.2	9-17	133	1.1 40
Grand mean	74.8	9-15	131	1.1 35
BLSD (k=100)	12.3	8	8	0.3 3
C.V. (%)	7.8	4	1	17.2 7

(1) Proprietary names are company or brand names, generally associated in the trade with variety, brand, or blend names.

(2) Yields followed by an asterisk (\*) are not, statistically, significantly different from the highest yield in the sub-table.

(3) 1 (erect) to 5 (flat).

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