



# SOYBEAN

Minnesota Agricultural Experiment Station scientists annually conduct tests of adapted public and private soybean varieties. Companies are charged a fee for each variety they enter, which partially cover the costs of conducting the test. A stipulation of the testing program is that the company is marketing the variety or intends to begin marketing it in the next growing season.

Tables on pages 65-67 present data from the regular public and private variety tests conducted annually at various locations within the northern, central and southern production zones. The map (lower right) shows test locations and zone boundaries. All of these tests were planted between May 10 and June 10 at planting rates of 160,000 plants/acre. Herbicides were used as necessary for good weed control. Row spacings were 30 inches at Becker and Fairmont and 10 inches at other locations. Plot combines were used to harvest the yield from all plots.

Tables on page 68 show results of the very early (northern Minnesota) and southeastern Minnesota public variety tests. These locations were added to provide data for environments not represented by other locations. Roseau and Grand Rapids were not harvested in 2002.

Tables on pages 68-75 provide results from specific tests of available Roundup Ready® varieties adapted to the northern, central and southern production zones. Planting was accomplished as described above, except that the only herbicide used was Roundup® at labeled rates.

The table on page 76 provides results from performance tests of soybean cyst-nematode-resistant varieties at “infested” field sites near Lamberton, Waseca, and Blue Earth and “non-infested” field sites near Lamberton, Potsdam and Waseca. Planting techniques were the same as for the regular performance tests.

Tables on pages 77-80 provide performance and characteristics data from special-use soybean variety tests. These tests were conducted to provide reliable data for growers who are interested in producing these types of soybeans, which are typically grown under contract.

The table on page 81 provides important variety characteristics of publicly developed varieties entered in the 2002 tests.

Tables on pages 81-83 provide results from the special white mold (*Sclerotinia*) evaluations at Staples, Morris, Rosemount and Waseca.

**To better understand and use the data provided in these tables, please read the following additional information very carefully:**

### *Relative Maturity and Calendar Dates of Maturity*

Soybeans respond to changing day length, so the actual calendar date of maturity achievement is affected by latitude. Each variety has a narrow range of north-south adaptation. Soybean yield and quality are assured if a variety arrives at physiological maturity before a season-ending freeze occurs. This date is determined visually by noting the actual date when 95 percent of the pods show their genetically programmed mature color. These dates for 2002 are provided in the tables. Harvest dates are typically 7 to 14 days later, depending upon drying conditions.

Relative maturity ratings are also provided for each variety. These ratings consist of a number for the maturity group designation (000, 00, 0, 1, 2) followed by a decimal and another number, ranging from 0-9, which indicates a ranking within each maturity group. For example the variety MN0302 is indicated as 0.3,

making it an early group 0 variety, while MN0901, with a 0.9 rating, is the latest. These values for public varieties are developed after observing them for several years in many locations. Relative maturity ratings for private varieties in these tables, provided by their owners, were developed in a similar manner.

### *Yield*

Because maturity is a very important attribute, varieties are arranged in the tables in order of their actual 2002 calendar date of maturity and not yield performance.

Later-maturing varieties can usually be expected to have higher yields than earlier-maturing types. If you wish to compare yields correctly, compare only between varieties with similar calendar dates of maturity, usually within 3 to 5 days. More-reliable comparisons can be made using variety yields from several consecutive years. All yield determinations were made from replicated tests harvested with a plot combine.

Yield information is presented as a percent of the mean of the test, with the actual mean value given at the bottom of each table. Values over 100 indicate the variety had a yield greater than the mean; values less than 100 have a yield less than the mean.

LSD values associated with data in these tables are measures of variability within the trials. The LSD values are given on the percent of mean data, not the actual yields. If a yield difference between two varieties within a single column exceeds this LSD value you can assume that the



higher-yielding variety was truly better-yielding. A 20-percent level of significance is used in all these tables. This means that yield differences exceeding the stated LSD value are real 80 percent of the time.

### Chlorosis

These ratings are based on how much of the leaf area was yellowing in tests conducted on high-lime (high pH) soils near Clarkfield and Foxhome in 2002. Comparing chlorosis scores of varieties permits you to estimate how well they perform relative to each other. Actual chlorosis ratings can vary depending on the specific site and year of test. The data in the tables is from the Clarkfield site only. Specific scores and evaluation dates from the 2002 test at both locations are provided at web site [www.soybeans.umn.edu/home.htm](http://www.soybeans.umn.edu/home.htm) Some universities and companies use numerical scores rather than word descriptors to describe chlorosis tolerance. A comparison of these systems follows:

Numerical Score		Word Description
1-5 scale	1-9 scale	Rating
1 to 2	1 to 2.5	Tolerant (T)
2.1 to 3	2.6 to 5	Moderately Tolerant (MT)
3.1 to 4	5.1 to 7.5	Moderately Susceptible (MS)
4.1 to 5	7.5 to 9	Susceptible (S)

### Protein and Oil

Protein and oil values were determined from mature seed using near infrared reflectance analysis equipment. The table values are for the 2002 season only. This year the protein and oil information is presented on a percent of the mean of the test, with actual mean values given at the bottom of each table. Values over 100 indicate the protein and/or oil contents of the variety were greater than

the mean value; varieties with values less than 100 have protein and/or oil contents less than the mean. Absolute values of protein and oil can vary from year to year. The mean protein and oil values are expressed on a 13-percent moisture basis. This formula converts the protein and oil values to another moisture basis:

$$\frac{100 - \text{desired moisture}}{87} \times \frac{\text{protein or oil value given in the table}}{\text{protein or oil value given in the table}}$$

The value of a bushel of soybeans (APV) based on its oil and protein content can be calculated by:

$$APV = 60 [Po (X) + \frac{Pm}{.44}(Y)]$$

Where:  
 APV = Approximate value of a bushel of soybeans  
 Po = soybean oil price (in \$ per pound)  
 Pm = price of 44% meal (in \$ per pound)\*  
 X = oil content at 13% moisture (in decimals)  
 Y = protein content at 13% moisture (in decimals)

And:  
 $\frac{\text{* price of meal \$/ton}}{2,000} = \text{\$/pound}$

The value of an acre of soybeans can be calculated by multiplying the APV by the yield in bushels per acre.

### Phytophthora

Phytophthora root rot can cause significant yield reductions if susceptible varieties are planted in poorly drained, infested fields. There are several known races of this fungus, so it is important to know which are present in your field. Genes can be incorporated into varieties to provide resistance to specific races of this disease.

Some published information refers to Phytophthora "tolerance" or "field resistance," which is not race-specific and should not be confused with race specific

resistance. Reliable tests for tolerance have not yet been developed.

The data tables in this report indicate the Phytophthora gene or genes present in each variety. The "Genes for resistance" chart shows which genes provide resistance to the various races.

### Soybean Cyst Nematode

Soybean Cyst Nematode (SCN), first identified in Minnesota in 1978, is now known to occur in many Minnesota counties where the soybean is grown. Both the area of infestation and numbers of nematodes per unit of soil appear to be increasing. Several races of this pest are known to occur in Minnesota. When SCN numbers are high, significant yield losses can occur. Rotations to non-host crops and planting of resistant varieties can assist in reducing nematode populations as well as reducing its impact on yield.

Yield performance results of susceptible (S), moderately susceptible (MS), moderately resistant (MR) and resistant (R) varieties planted in infested and non-infested fields in southern Minnesota are provided on page 76. The ratings for SCN resistance were determined using nematode counts from naturally infested field sites and a greenhouse test using a Minnesota field population of SCN.

For proper management of fields with SCN it is recommended that varieties with an R rating be planted. If the SCN population numbers are relatively low – less than 3,000 – a variety with an MR rating might be considered. Although SCN reproduction is less on MS-rated varieties than on S-rated varieties, for practical purposes these varieties should not be considered for planting in fields where SCN is present and being managed.

Management information is available from web site [www.soybeans.umn.edu](http://www.soybeans.umn.edu) or from the Minnesota Soybean Research and Promotion Council, 360 Pierce Avenue, Suite 110, North Mankato, MN 56003, 1-888-896-9678, web site [www.mnssoybean.org](http://www.mnssoybean.org)

### White Mold

White mold, also known as Sclerotinia stem rot, develops in infested fields when high relative humidity and moder-

## Genes for resistance to various races of Phytophthora root rot.

### Gene Races

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Rps1,1a																											
Rps1b																											
Rps1c																											
Rps1k																											
Rps3																											
Rps4																											
Rps6																											

ate temperatures occur during soybean flowering. Planting less-susceptible varieties in wider row spacings or at lower populations is the most effective method of reducing white mold severity. Accurate ratings for soybean variety resistance to white mold are difficult to obtain because both infection and disease development are dependent on weather conditions. Because of this variability, a variety's performance can change significantly among locations and years depending on the interaction of plant development, precipitation, relative humidity and temperature. White mold severity also tends to be greater if lodging occurs. Growers concerned about variety performance in the presence of white mold should select varieties that show consistently less white mold during several years of testing.

In 2002, white mold variety trials were planted at Ada, Staples, Morris, Rosemount, Lambertson, and Waseca. The plots at Ada were lost due to flooding and no white mold developed at Lambertson. Only low levels of white mold developed at the remaining five locations. Yield information was not available from Waseca.

### ***Brown Stem Rot***

Brown stem rot (BSR) is a fungal disease that can cause yield losses in certain situations. The disease occurs most frequently when soybeans follow soybeans but can occur where soybeans are planted every-other year. Resistant varieties, or longer rotations assist in the management of this disease. Freeborn, IA1006 and IA2008R are available public varieties with resistance to BSR. Anderson 2063RR, GL1903RR, GL2200RR, Latham 297RR, Latham 367RR, Latham 547RRN, Latham EX318RR, Mustang M-0883 and Mustang M211RR are the privately developed varieties reported to be resistant to BSR. Latham 140, Latham 290, Latham 507RR, Latham Ex388RRN and Latham EX468RR are privately developed varieties reported to be moderately resistant to BSR.

Some information refers to "tolerance" or "field resistance." Reliable tests for tolerance or field resistance have not yet been developed.

### ***Privately developed varieties.***

Contact addresses and brand names for privately developed varieties entered in these tests are:

- Advantage Soybean Seed** (Advantage), 17303 Highway 22, Good Thunder, MN 56037  
**AgriPro Seeds** (AP), 2369 330th St., Box 500, Slater, IA 50244  
**Albert Lea Seed House** (Viking), P.O. Box 127, 1414 W. Main, Albert Lea, MN 56007  
**Anderson Seeds** (Anderson), RR 3 Box 94, St. Peter, MN 56082  
**Crow's Hybrid Corn Co.** (Crow's), Box 306, Milford, IL 60953  
**Dahlco Seeds** (Dahlco), 14730 15th St. S.W., Cokato, MN 55321  
**Dahlman Seeds** (Dahlman), 73504 200th St., Dassel, MN 55325  
**Dairyland Seed Co., Inc.** (Dairyland), P.O. Box 150, 209 Main St., Gilbert, IA 50105  
**Dennis Ewing Farm Seed** (Yield King), 6131 North Fork Road, Ames, IA 50010  
**Excel Brand** (Excel Brand), 116E. State, Camp Point, IL 62320  
**Farm Advantage** (Farm Advantage), 1275 Hwy 69, Belmond, IA 50421  
**Gold Country Seed, Inc.** (GCS), 16506 Hwy. 15 N., P.O. Box 604, Hutchinson, MN 55350  
**Golden Harvest** (Golden Harvest), P.O. Box A, Waterloo, NE 68069  
**Great Lakes Hybrids, Inc.** (Great Lakes), 9915 W. M-21, Ovid, MI 48866  
**Helena** (Helena), Collierville, TN  
**Hyland Seeds** (Hyland), Box 130, 2 Hyland Drive, Blenheim, ON, Canada NOP 1A0  
**Jung Seed Genetics** (Jung), 341 S. High St., Randolph, WI 53956  
**Kaltenberg Seeds** (Kaltenberg), 5506 State Hwy. 19, Waunakee, WI 53597  
**Kruger Seed Company** (Kruger), Highway 20 East, Box A, Dike, IA 50624  
**KSC/Challenger** (KSC/Challenger), Box A, Dike, IA 50624  
**Latham Brothers Farm** (Latham), 131 180th St., Alexander, IA 50420  
**Latham Seed Company** (Latham), 131 180th St., Alexander, IA 50420  
**Legend Seeds** (Legend), P.O. Box 241, De Smet, SD 57231  
**LG Seeds** (LG), 710 N. Main St., Suite 201, River Falls, WI 54022  
**Mallard Seed Co.** (Mallard), P.O. Box 637, Plainview, MN 55964  
**Maple Leaf Foods** (MLF), 3080 Yonge St., Suite 2000, Toronto, ON, Canada M4N 3N1  
**Midwest Seed Genetics** (MW Genetics), P.O. Box 518, Carroll, IA 51401  
**Monsanto Global Seed Group** (Dekalb), 3100 Sycamore Road, De Kalb, IL 60115  
**Mustang Seed** (Mustang), Box 466, Madison, SD 57042  
**NorthStar Genetics** (NS), Box 40, Wanamingo, MN 55983  
**Pioneer Hi-Bred International, Inc.** (Pioneer), 921 Darien Dr., Madison WI 53717  
**Profiseed, Inc.** (Profiseed), 1691 Highway 65, Hampton, IA 50441  
**Prairie Brand Research** (PBR), 15 X Ave., Story City, IA 50248  
**Prairie Brand Seed Company** (Prairie Brand), 15 X Ave., Story City, IA 50248  
**Quality Seed Co.** (Quality Seed), 307 3rd Street, Alice, ND 58031  
**Renk Seed Co.** (Renk), 6800 Wilburn Rd., Sun Prairie, WI 53590  
**Sabre Initiatives LLC** (Sabre), 2508 Trott Ave. S.W., P.O. Box 386, Willmar, MN 56201  
**Sand Seed Service, Inc.** (Sands), P.O. Box 648, Marcus, IA 51035  
**Sansgaard Seed Farms, Inc.** (Sansgaard), 15 X Avenue, Story City, IA 50248  
**Seeds 2000** (Seeds 2000), P.O. Box 200, Breckenridge, MN 56520  
**Sodak Genetics** (Sodak Genetics), Box 2207A, SDSU, Brookings, SD 57007  
**Stine Seed Co.** (Stine), 2225 Laredo Trail, Adel, IA 50003  
**Stine Seed Farm** (Stine), 2225 Laredo Trail, Adel, IA 50003  
**Syngenta Seeds** (NK Brand), 3701 W 49th St., Suite 206, Sioux Falls, SD 57106  
**Thompson Agronomics, Inc.** (Thompson), 40321 130th Avenue, Leland, IA 50453  
**Thompson Seeds, Inc.** (Thompson), 40321 130th Ave., Leland, IA 50453  
**Thunder Seed** (Thunder) 3008 210th St. N., Hawley, MN 56549  
**Top Farm Hybrids** (Top Farm), P.O. Box 850, Cokato, MN 55321  
**Trelay Seeds** (High Cycle), 11623 State Road 80, Livingston, WI 53544  
**UAP Seed** (Dyna-Gro), P.O. Box 10, Wall Lake, IA, 51466  
**United Suppliers Inc.** (U.S. Seeds) 30473 260th St., P.O. Box 538, Eldora, IA 50627  
**Wensman Seed Company** (Wensman), P.O. Box 190, Wadena, MN 56482  
**Ziller Seed Co., Inc.** (Ziller), 76374 380th St., Bird Island, MN 55310

### Special-Use Varieties

There is growing interest in producing soybeans with special characteristics important to manufacturers of specialty food products. Soybean scientists previously developed some of these special-use varieties, which were general releases, but more recently varieties have been released under exclusive or nonexclusive licenses to specific companies who then contract with growers for production. For further information contact MCIA at web site [www.mncia@tc.umn.edu](http://www.mncia@tc.umn.edu) or telephone number 612-625-7766.

The most recent data available on the performance and characteristics of several of these special use varieties is on pages 77-80. If you are interested in further information about these varieties, contact the owner/developer or exclusive marketing company.

### Publicly Developed Varieties

Important characteristics of the publicly developed varieties entered in 2002 tests are presented on page 81.

### Soybean Planting Rate and Date

Bushel Weight, Pounds .....	60
Seeds/Pound.....	2,800
Planting Rate, Pounds/Acre .....	56
Planting Rate, Seeds/Ft. of Row	
7-inch rows.....	2
10-inch rows.....	3
20-inch rows.....	6
22-inch rows.....	7
30-inch rows.....	9
Planting Date.....	May 10 to June 10

### Performance and characteristics of public and private soybean varieties, northern zone; Crookston, Moorhead and Shelly, 2000-2002.

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2000-2002	2001-2002	2002	Protein	Oil			
McCall	Minn. AES	9-15	81	86	84	100	97	00.7	S	2.7
90A07	Pioneer	9-16	94	99	100	99	104	00.7	S	2.7
Jim	N.D. AES	9-17	97	101	96	99	98	00.7	S	2.3
Glacier	Minn. AES	9-21	95	90	82	99	101	00.8	Rps6	2.7
Traill	N.D. AES	9-22	103	105	100	104	96	0.0	Rps1	3.7
Bygland	Gold Country	9-23	–	107	109	100	100	0.3	Rps1	4.3
S00-K6	NK Brand	9-23	–	–	98	102	99	0.0	Rps1	4.3
Emerson	Hyland Seeds	9-23	–	–	94	97	104	00.6	S	2.7
MN0201	Minn. AES	9-23	102	93	90	107	95	0.2	Rps1	2.3
Walsh	N.D. AES	9-24	–	101	95	98	102	0.2	Rps6	2.7
MN0302	Minn. AES	9-25	105	97	97	101	100	0.3	Rps1k	3.0
MN0301	Minn. AES	9-26	107	103	102	98	104	0.3	Rps1	2.7
90B43	Pioneer	9-26	110	104	99	96	102	0.4	Rps1c	2.0
Barnes	N.D. AES	9-27	–	101	104	98	104	0.2	Rps6	4.0
K-0555	Kruger	9-30	–	–	118	100	102	0.3	S	3.0
M-0333	Mustang	9-30	–	–	113	98	100	0.3	S	4.0
Lambert	Minn. AES	10-1	108	102	104	98	101	0.7	Rps1	2.7
K-0991	Kruger	10-4	–	–	108	104	95	0.7	S	3.7
DST0810	Dairyland	10-4	–	110	106	98	104	0.8	Rps1k	5.0
PB-098	Prairie Brand	10-3	–	–	105	102	96	0.9	S	2.7
K-0777	Kruger	10-5	–	–	109	103	98	0.5	S	3.0
Mean		9-25	39.3 bu/a	41.8 bu/a	41.7 bu/a	36.8 %	19.4 %			
LSD 20%			5%	7%	12%					

**Performance and characteristics of public and private soybean varieties, central zone;  
Becker, Morris and Rosemount, 2000-2002.**

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2000-2002	2001-2002	2002	Protein	Oil			
MN0302	Minn. AES	9-12	–	89	89	98	102	0.3	Rps1k	2.3
Barnes	N.D. AES	9-12	88	88	87	99	106	0.2	Rps6	3.0
X3203	Gold Country	9-13	–	–	99	100	99	0.4	Rps1c	3.7
MN0301	Minn. AES	9-13	89	89	89	95	104	0.3	Rps1	3.0
91B01	Pioneer	9-14	98	96	94	94	105	1.0	Rps1k	4.3
M-0883	Mustang	9-15	–	–	105	101	97	0.8	S	3.7
K-0707	KSC/Challenger	9-16	–	108	105	102	97	0.5	S	3.0
Lambert	Minn. AES	9-16	99	99	99	101	100	0.7	Rps1	2.7
ADV0900	Advantage	9-17	–	–	95	104	97	0.9	Rps1k	2.7
MN0902CN	Minn. AES	9-17	92	93	93	103	96	0.9	S	3.7
Surge	Minn. & S.D. AES	9-17	101	101	92	103	100	0.9	Rps1	3.7
MN0901	Minn. AES	9-17	94	90	89	97	102	0.9	Rps1	4.0
MN1006CN	Minn. AES	9-18	–	–	91	99	102	1.0	Rps1	3.3
Sargent	N.D. AES	9-19	–	95	95	101	103	1.0	Rps6	3.7
ADV1010	Advantage	9-19	–	95	93	98	101	1.0	Rps1k	2.7
K-1222	KSC/Challenger	9-20	–	–	109	96	104	1.0	S	4.3
MN1302	Minn. AES	9-20	–	102	99	95	103	1.3	Rps1k	2.7
Kato	Minn. AES	9-20	93	88	89	109	93	1.3	Rps1	2.3
91B53	Pioneer	9-22	108	108	105	103	97	1.6	S	4.3
EX3161	Thompson	9-22	–	–	103	101	99	1.6	Rps1k	4.0
MN1401	Minn. AES	9-22	96	93	92	103	97	1.4	Rps1	2.7
140 Brand	Latham	9-23	109	107	106	101	99	1.4	S	4.0
FA1545	Farm Advantage	9-24	–	–	111	102	98	1.4	Rps1c	2.7
K-1666	Kruger	9-24	–	–	109	101	99	1.4	S	2.7
K-1313	KSC/Challenger	9-25	–	116	109	101	99	1.1	S	3.0
PB-146	Prairie Brand	9-25	110	109	107	101	99	1.5	S	3.3
K-1919	Kruger	9-26	118	118	114	101	99	1.7	S	4.0
Parker	Minn. AES	9-26	106	104	95	101	101	1.5	Rps1	4.7
Freeborn	Minn. AES	9-26	98	97	94	104	98	1.6	Rps1	3.0
EX3151	Thompson	9-27	–	–	117	103	97	1.5	S	4.0
K-1828	KSC/Challenger	9-27	–	–	105	98	101	1.6	S	3.3
PB-178	Prairie Brand	9-28	–	117	116	102	99	1.7	S	4.7
K-1996	Kruger	9-28	–	–	105	99	102	1.7	Rps1	4.7
K-2121	Kruger	9-29	–	–	108	98	99	1.9	S	4.3
Mean		9-26	54.2 bu/acre	53.3 bu/acre	62.7bu/acre	36.5%	19.5%			
LSD 20%			3%	7%	7%					

**Performance and characteristics of public and private soybean varieties, southern zone;  
Fairmont, Lambertson and Waseca, 2000-2002.**

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2000-2002	2001-2002	2002	Protein	Oil			
MN1301	Minn. AES	9-19	89	85	82	106	97	1.3	Rps1	3.3
MN1401	Minn. AES	9-20	93	90	87	104	99	1.4	Rps1	3.0
MN1302	Minn. AES	9-22	–	91	92	96	101	1.3	Rps1k	2.7
XG219cyst	Gold Country	9-23	–	–	107	99	102	1.9	Rps1k	3.3
91B92	Pioneer	9-23	–	95	93	97	105	1.9	Rps1k	4.7
Freeborn	Minn. AES	9-23	88	88	77	103	99	1.6	Rps1	3.0
K-1666	KSC/Challenger	9-24	–	–	111	100	101	1.4	S	3.3
290 Brand	Latham	9-25	–	–	105	100	101	1.7	S	3.3
T-3201	Thompson Seeds	9-26	108	107	115	95	101	2.0	S	4.0
S18-N5	NK Brand	9-26	–	–	100	102	99	1.8	S	3.3
IA1006	Iowa AES	9-26	99	95	100	99	101	1.6	S	3.3
IA2050	Viking	9-26	–	99	97	99	101	2.0	S	4.3
AC Hime	Maple Leaf Foods	9-26	–	–	82	114	88	2.1	S	3.3
K-2100	Kruger	9-27	–	–	103	97	104	1.9	S	4.3
SOI 176	Sands	9-27	–	–	103	100	102	1.7	S	3.3
IA2050	Iowa AES	9-27	104	99	97	96	102	2.1	S	4.0
1846	Farm Advantage	9-28	–	–	116	101	101	1.8	S	4.0
SOI 202	Sands	9-28	–	107	114	95	99	2.0	S	3.7
EX3192	Thompson Seeds	9-28	–	–	108	101	99	1.9	S	3.7
2072	Garst/AgriPro	9-28	–	104	104	104	99	2.0	S	3.3
K-1943	Kruger	9-28	–	107	103	104	101	1.7	S	3.7
K-1991	KSC/Challenger	9-28	–	–	101	103	99	1.7	S	3.3
M-1173	Mustang	9-28	–	–	101	100	102	1.7	S	3.0
ADV1666	Advantage	9-28	–	–	98	102	100	1.5	S	4.0
Parker	Minn. AES	9-28	102	100	98	102	99	1.5	Rps1	4.7
MN1801	Minn. AES	9-28	102	99	97	103	101	1.8	Rps1c	3.0
PB-178	Prairie Brand	9-28	–	103	96	100	102	1.7	S	3.3
Sturdy	Minn. AES	9-28	90	89	87	102	98	2.0	Rps1	3.0
EX-280	Latham	9-29	–	–	109	103	101	1.7	S	3.3
K-1996	Kruger	9-29	–	–	97	97	102	1.7	Rps1	4.3
IA2021	Iowa AES	9-29	99	101	95	92	106	2.1	Rps1k	4.0
T-3222	Thompson Seeds	9-30	112	113	118	100	98	2.2	S	3.7
SOI 187	Sands	9-30	–	111	110	96	106	1.8	Rps1	3.0
MLF 128	Maple Leaf Foods	9-30	–	–	108	100	104	1.7	S	3.3
M-2243	Mustang	9-30	–	–	104	97	102	2.4	S	3.7
k-2303	KSC/Challenger	9-30	–	–	102	96	101	2.1	S	4.3
2077	Viking	9-30	–	103	101	102	98	2.0	S	2.7
392 Brand	Latham	9-30	106	104	101	102	98	1.9	S	3.3
2199	Viking	9-30	105	106	97	103	96	2.1	S	3.7
2022	Viking	9-30	–	–	90	100	99	2.0	Rps1c	3.3
T-3182	Thompson Seeds	10-1	–	–	112	96	104	1.8	Rps1	4.0
570 Brand	Latham	10-1	–	107	111	101	100	2.1	S	3.7
K-2111	KSC/Challenger	10-1	–	–	104	99	99	1.9	S	4.3
PB-230	Prairie Brand	10-1	104	100	103	97	98	2.3	Rps1	4.0
2244	Farm Advantage	10-2	–	–	111	99	99	2.2	Rps1	4.3
PB-202	PBR	10-2	–	104	109	99	98	2.0	S	4.0
PB-217	Prairie Brand	10-2	102	101	100	99	99	2.1	S	3.3
IA2008R	Iowa AES	10-2	99	95	98	98	98	2.1	Rps1k	4.0
IA2052	Iowa AES	10-2	98	95	94	102	101	2.3	Rps1	3.3
K-2525+	Kruger	10-3	–	102	99	103	105	1.3	S	3.3
Mean		9-28	55.5 bu/acre	59.7 bu/acre	59.1 bu/acre	35.8%	19.1%			
LSD 20%			5%	7%	8%					

**Performance and characteristics of very early maturing soybean varieties;  
Grand Rapids, Kennedy and Roseau, 2000-2002.**

Variety	Maturity Rating	Yield, Percent of Mean			Percent of Mean		Phytophthora Gene	Chlorosis Score
		2000-2002	2001-2002	2002	Protein	Oil		
McCall	00.7	99	92	91	99	99	S	3.7
Jim	00.8	113	113	116	97	99	S	3.4
Agassiz	0.0	93	93	111	101	99	Rps1	3.3
Traill	0.0	93	95	93	101	97	S	2.9
Mean		34.2 bu/acre	37.3 bu/acre	39.2 bu/acre	33.4%	17.7%		
LSD 20%		6%	11%	13%				

**Performance and characteristics of public soybean varieties, southeastern Minn., 1999-2002.**

Variety	Maturity Rating	Yield, Percent of Mean			Percent of Mean		Phytophthora Gene	Chlorosis Score
		2000-2002	2001-2002	2002	Protein	Oil		
Lambert	0.7	96	102	91	96	102	Rps1	2.7
MN1302	1.3	–	–	104	93	98	Rps1k	3.0
Kato	1.3	96	101	93	109	92	Rps1	3.3
MN1301	1.3	85	84	80	101	102	Rps1	3.3
MN1401	1.4	98	105	98	99	99	Rps1	3.0
91B53	1.5	–	–	108	102	102	S	4.3
Parker	1.5	100	105	102	104	98	Rps1	3.7
IA1006	1.6	102	107	97	101	96	S	3.3
Freeborn	1.6	95	102	89	99	98	Rps1	3.0
MN1801	1.8	102	108	101	101	102	Rps1c	3.0
A1900	1.9	90	96	95	92	113	Rps1k	4.0
IA1008	2.0	87	89	105	100	96	S	4.0
IA2050	2.1	106	112	106	101	97	S	4.3
IA2021	2.1	100	107	105	97	104	Rps1k	3.7
IA2052	2.3	104	113	115	102	99	Rps1	3.3
Sturdy	2.0	105	114	112	102	98	Rps1	3.0
Mean		41.2 bu/acre	40.0 bu/acre	43.1 bu/acre	36.5%	17.7%		
LSD 20%		6%	11%	13%				

**Performance and characteristics of Roundup Ready soybean varieties, northern zone;  
Crookston and Shelly, 2000-2002.**

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2000-2002	2001-2002	2002	Protein	Oil			
00533RR	Gold Country	9-20	–	–	95	102	101	00.9	S	2.7
90B11	Pioneer	9-20	–	96	94	98	99	0.1	S	2.0
YK-009RR	Yield King	9-21	–	–	101	99	101	00.7	Rps1k	2.7
RR Ramsey	Hyland Seeds	9-21	–	–	99	102	101	00.5	S	3.0
DG X403RR	Dyna Gro	9-23	–	–	100	100	100	00.9	Rps1k	2.3
RR Raven	Hyland Seeds	9-23	–	–	98	99	102	00.8	S	3.0
W 2025RR	Wensman	9-23	–	92	98	96	103	0.2	S	2.3
YK-008RR	Yield King	9-23	–	–	83	102	98	00.7	S	3.0
3202RR	Gold Country	9-24	–	–	99	98	103	0.2	S	2.7
AG-0201	Asgrow	9-24	–	–	97	96	102	0.2	Rps1	2.7
2021RR	Seeds 2000	9-24	–	–	96	97	102	0.2	S	2.7
PB-0201RR	Sansgaard	9-24	–	–	94	98	103	0.2	Rps1	3.7
DG 3024RR	Dyna Gro	9-24	–	–	93	99	102	0.2	Rps1	2.7
YK-023RR	Yield King	9-25	–	–	98	99	102	0.0	Rps1k	2.7
2200	Thunder	9-25	–	–	95	101	99	00.9	S	2.7

*Performance and characteristics of Roundup Ready soybean varieties, northern zone; Crookston and Shelly, 2000-2002 (continued).*

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2000-2002	2001-2002	2002	Protein	Oil			
S0236-4	Stine	9-25	-	-	94	99	102	0.2	S	2.7
W 2033RR	Wensman	9-25	-	-	92	100	101	0.3	Rps1	3.0
Ex 6002RR	TopFarm	9-25	-	-	89	101	101	00.0	S	2.7
90B51	Pioneer	9-26	-	-	111	99	102	0.5	Rps1c	2.7
M-023RR	Mustang	9-26	-	-	107	98	103	0.2	S	2.0
PB-0091RR	PBR	9-26	-	-	102	100	101	00.9	Rps1k	3.7
PB-0232RR	Sansgaard	9-26	-	-	102	99	102	0.2	Rps1k	2.0
PB-0799RR	Prairie Brand	9-27	-	-	108	101	99	0.5	Rps1k	2.3
K-040RR	KSC/Challenger	9-27	-	-	103	102	99	0.1	S	5.0
PB-0352RR	Prairie Brand	9-27	-	-	99	98	99	0.3	Rps1k	2.3
YK-021RR	Yield King	9-27	-	-	98	101	98	00.8	S	2.7
PB-0081RR	Sansgaard	9-27	-	-	94	101	99	00.7	S	3.0
90B74	Pioneer	9-28	-	-	111	96	102	0.7	Rps1c	2.3
C0551RR	LG Seeds	9-28	-	-	109	99	101	0.5	Rps1k	2.7
DKB03-51	Dekalb	9-28	101	105	105	99	101	0.3	Rps1	3.7
RR Rugged	Hyland Seeds	9-28	93	94	97	98	103	0.3	S	3.0
S02-G2	NK Brand	9-28	-	-	89	97	102	0.2	Rps1	4.0
QSG-0555RR	Quality Seed	9-29	-	-	116	97	101	0.2	Rps1	4.3
0201RR	Legend Seeds	9-29	-	-	114	100	100	0.0	S	2.7
6042RR	TopFarm	9-29	-	-	102	101	101	0.3	S	3.0
0601RR	Legend Seeds	9-29	-	-	97	99	102	0.0	S	4.0
PB-0532RR	PBR	9-30	-	-	122	101	98	0.5	S	4.0
PB-0432RR	PBR	9-30	-	-	111	98	102	0.4	S	2.7
W 2054RR	Wensman	9-30	-	104	108	101	100	0.5	Rps1k	2.3
DSR-030/RR	Dairyland	9-30	-	102	105	103	96	0.3	S	4.3
W 2050RR	Wensman	9-30	100	103	105	99	99	0.5	Rps1k	3.7
M-053RR	Mustang	10-1	-	-	116	99	98	0.5	S	3.3
K-051RR	KSC/Challenger *	10-1	-	110	114	101	101	0.1	S	4.0
K-061RR	KSC/Challenger	10-1	-	-	86	104	97	0.3	Rps1	2.7
DST0811/RR	Dairyland	10-2	-	-	122	102	99	0.5	S	4.3
K-060RR	Kruger	10-2	-	-	120	102	97	0.3	S	3.0
2203	Thunder	10-2	-	-	103	99	100	0.3	Rps1k	3.0
PB-0452RR	Sansgaard	10-3	-	-	108	97	103	0.4	Rps1c	4.0
8046RR	Excel Brand	10-3	-	-	104	100	98	0.4	S	3.7
PB-0321RR	Prairie Brand	10-3	-	92	102	98	103	0.3	Rps1k	4.3
DSR-040/RR	Dairyland	10-4	-	-	111	103	97	0.4	S	4.7
DSR-075/RR	Dairyland	10-4	102	101	108	100	100	0.7	S	2.3
8080RR	Excel Brand	10-4	-	-	108	100	101	0.8	S	3.0
M-051RR	Mustang	10-4	-	106	102	101	100	0.5	S	3.7
PB-0561RR	PBR	10-4	-	-	100	102	101	0.5	S	4.0
QSG-0636RR	Quality Seed	10-4	-	-	95	103	96	0.3	Rps1	2.7
PB-0094RR	Prairie Brand	10-4	-	-	93	99	98	00.9	Rps1k	3.7
K-077-1RR	Kruger	10-5	98	99	98	102	102	0.6	Rps1k	2.3
K-077RR	Kruger	10-6	106	110	108	101	99	0.7	S	3.3
K-080-1RR	KSC/Challenger	10-6	-	97	95	100	97	0.7	Rps1	4.0
S0846-4	Stine	10-6	-	-	90	102	97	0.7	S	2.7
K-070RR	Kruger	10-7	-	-	94	104	102	0.6	S	2.3
8120RR	Excel Brand	10-7	-	-	67	99	95	1.2	S	4.0
Mean		9-28	43.0 bu/acre	43.4 bu/acre	48.5 bu/acre	36.7%	19.6%			
LSD 20%			6%	9%	10%					

**Performance and characteristics of Roundup Ready soybean varieties, central zone;  
Becker, Rosemount and Morris, 2000-2002.**

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2000-2002	2001-2002	2002	Protein	Oil			
0517RR	Northstar	9-13	-	-	105	99	97	0.5	S	3.7
098RR	Sabre	9-13	-	-	101	99	100	0.9	S	4.0
0707RR	Garst/AgriPro	9-13	-	-	95	97	99	0.7	Rps1k	3.0
9083	Dahlco	9-13	-	-	83	101	97	0.8	Rps1k	2.7
RR Rally	Hyland Seeds	9-13	83	83	83	99	97	0.7	Rps1k	2.3
C9093RR	LG Seeds	9-14	-	98	98	99	100	0.9	S	4.7
DG X425RR	Dyna Gro	9-14	-	-	97	93	101	0.9	S	3.3
PB-0932RR	Prairie Brand	9-14	-	-	94	93	101	0.9	Rps1c	2.7
RR Randell	Hyland Seeds	9-14	-	-	93	97	99	0.8	Rps1k	4.0
PB-0920RR	PBR	9-14	-	-	93	98	100	0.9	S	4.7
3205RR	Gold Country	9-14	-	-	91	98	99	0.5	Rps1k	2.3
RS071RR	Renk	9-14	-	85	87	99	98	0.7	Rps1k	3.0
DG 3094RR	Dyna Gro	9-15	-	-	104	97	99	0.9	Rps1	2.7
DKB06-51	Dekalb	9-15	94	96	97	96	103	0.6	Rps1k	3.3
PB-0810RR	Prairie Brand	9-15	-	94	93	94	101	0.8	Rps1k	3.0
GR0804	Midwest	9-15	-	-	89	97	99	0.8	Rps1k	3.7
6072RR	Top Farm	9-15	-	-	88	98	100	0.7	Rps1k	2.7
EX-078RR	Latham	9-16	-	-	103	101	96	1.2	S	3.0
US S0909RR	US Seeds	9-16	97	101	99	101	97	0.9	S	4.3
PB-0940RR	Sansgaard	9-16	-	-	98	96	99	0.9	Rps1	2.7
2109RR	Thunder	9-16	-	98	97	99	96	0.9	Rps1	3.0
K-090RR	KSC/Challenger	9-16	-	-	96	101	97	0.7	S	3.3
2108RR	Thunder	9-16	-	94	95	97	100	0.8	Rps1k	2.7
PB-0812RR	Sansgaard	9-17	-	-	106	99	98	0.8	S	2.0
M-092RR	Mustang	9-17	-	-	102	101	96	0.9	S	3.7
W 2093RR	Wensman	9-17	-	-	101	100	96	0.9	S	3.0
RR 1011	Mallard	9-17	100	99	98	99	95	1.0	Rps1c	4.0
RR Ranger	Hyland	9-17	-	-	97	98	100	1.0	S	4.0
W 2081RR	Wensman	9-17	-	-	94	98	98	0.8	Rps1	2.3
BT 7090R	Ziller	9-17	-	96	94	98	98	0.9	Rps1	2.3
SD1081RR	Sodak Genetics	9-17	-	-	90	99	98	0.8	Rps1	2.0
K-070RR	Kruger	9-18	-	-	103	101	97	0.6	S	4.0
RS101RR	Renk	9-18	-	100	103	99	98	1.0	Rps1c	3.3
PB-0812-1RR	Prairie Brand	9-18	-	-	101	101	97	1.2	S	2.7
W 2131RR	Wensman	9-18	-	102	101	100	98	1.3	Rps1k	4.3
PB-1241RR	Sansgaard	9-18	-	-	100	100	99	1.2	Rps1k	3.7
2312RR	Thunder	9-18	-	-	99	103	97	1.2	S	3.7
AG0801	Asgrow	9-18	98	99	97	98	98	0.8	Rps1k	2.3
6102RR	Top Farm	9-18	-	-	97	97	98	0.9	Rps1	3.0
2110RR	Gold Country	9-18	-	94	97	99	96	1.0	Rps1c	4.7
SOI 1200RR	Sands	9-18	102	100	96	96	100	1.3	Rps1k	3.7
XR12C94	Garst/AgriPro	9-18	-	-	94	96	96	1.1	S	3.3
RS141RR	Renk	9-18	-	97	94	96	99	1.4	Rps1k	3.7
121RR	Sabre	9-18	-	-	94	98	99	1.2	Rps1k	4.0
91B03	Pioneer	9-18	-	-	92	101	100	1.0	Rps1k	2.7
090RR	Sabre	9-18	-	-	92	99	97	0.9	Rps1k	3.0
SD1091RR	Sodak Genetics	9-18	-	98	92	104	97	0.9	Rps1	2.0
913	Helena	9-18	-	-	88	98	97	0.9	Rps1	2.7
K-121RR	KSC/Challenger	9-19	-	-	108	100	102	1.0	Rps1k	4.7
BT 7106R	Ziller	9-19	100	103	105	99	96	1.0	Rps1c	3.0

**Performance and characteristics of Roundup Ready soybean varieties, central zone;  
Becker, Rosemount and Morris, 2000-2002 (continued).**

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2000-2002	2001-2002	2002	Protein	Oil			
ADV1283R	Advantage	9-19	–	–	91	103	97	1.2	S	4.0
91B52	Pioneer	9-20	104	107	107	98	101	1.5	Rps1k	4.0
DG 3082RR	Dyna Gro	9-20	–	–	106	100	98	0.8	S	3.7
2308RR	Thunder	9-20	–	–	95	99	100	0.8	S	2.3
T-7095	Thompson	9-20	–	–	90	98	100	0.9	S	4.0
Exp. 41514RR	Ziller	9-21	–	–	106	99	97	1.4	S	2.0
AG1401	Asgrow	9-21	–	–	103	96	103	1.4	Rps1k	2.3
PB-0852RR	PBR	9-21	–	–	98	97	102	0.8	Rps1k	3.0
W 2077RR	Wensman	9-21	–	–	95	101	97	0.7	S	3.3
K-155+RR	Kruger	9-22	–	–	110	100	97	1.2	S	3.0
PB-1452RR	Prairie Brand	9-22	–	–	105	99	99	1.4	S	2.7
2131RR	High Cycle	9-22	–	–	104	97	97	1.3	S	4.3
EX-7101	Thompson	9-22	–	–	103	99	95	1.0	Rps1c	3.7
1406RR	Garst/AgriPro	9-22	–	–	101	100	94	1.4	S	4.7
PB-1552RR	PBR	9-22	–	–	101	97	98	1.5	S	3.7
2110RR	Seeds 2000	9-22	–	91	86	101	98	1.1	Rps1k	2.0
K-166RR	Kruger	9-23	–	–	110	99	98	1.3	S	2.3
DG X409RR	Dyna Gro	9-23	–	–	110	98	97	1.5	S	2.3
C1410RR	LG Seeds	9-23	–	–	107	101	98	1.4	S	3.0
DSR-130/RR	Dairyland	9-23	105	106	106	99	95	1.3	S	4.7
GL1400RR	Great Lakes	9-23	–	–	106	100	96	1.4	S	2.7
PS4132	ProfiSeed	9-23	–	–	106	99	98	1.3	S	3.3
T-3155	Thompson	9-23	–	–	106	104	94	1.5	S	3.7
S1346-4	Stine	9-23	–	–	104	99	99	1.3	S	3.7
GL1502RR	Great Lakes	9-23	–	–	100	98	97	1.5	S	3.3
EXP121	Crows	9-23	–	–	94	99	95	1.2	S	3.0
YK-191RR	Yield King	9-24	–	–	118	98	99	1.8	Rps1k	3.0
1512	Helena	9-24	–	–	113	105	94	1.5	S	3.0
M-153RR	Mustang	9-24	–	–	110	97	98	1.5	S	3.0
7153	Farm Advantage	9-24	–	108	109	104	94	1.4	S	3.0
PS4153	ProfiSeed	9-24	–	–	108	97	98	1.5	S	3.0
T-7122	Thompson	9-24	–	–	106	98	99	1.0	S	4.0
RR 1511	Mallard	9-24	–	–	105	105	93	1.5	S	3.7
X-1131RR	Dahlco	9-24	–	101	104	104	96	1.3	Rps1k	4.0
US S1403RR	US Seeds	9-24	–	–	101	99	97	1.4	S	3.7
EX-148RR	Latham	9-24	–	–	100	100	98	1.4	S	2.7
M-123RR	Mustang	9-24	–	–	98	99	95	1.2	S	3.7
1508RR	Anderson Seeds	9-25	–	109	109	104	96	1.5	S	2.3
S1586-4	Stine	9-25	–	–	104	99	97	1.5	S	3.0
K-193RR	Kruger	9-25	–	–	102	101	96	1.7	S	2.7
YK-151-1RR	Yield King	9-25	–	–	102	105	92	1.3	S	4.3
PB-1632RR	Sansgaard	9-25	–	–	99	102	98	1.5	Rps1k	3.7
1304RR	Garst/AgriPro	9-25	–	–	92	101	96	1.3	Rps1k	3.0
K-191+RR	KSC/Challenger	9-26	–	–	117	95	103	1.7	S	3.7
SOI 174RR	Sands	9-26	–	112	108	96	97	1.5	Rps1c	2.0
KB161RR	Kaltenberg	9-26	–	–	107	99	96	1.6	Rps1c	2.7
RS159RR	Renk	9-26	112	108	106	95	99	1.5	Rps1c	3.0
DST-1226/RR	Dairyland	9-26	–	–	99	102	97	1.5	Rps1k	5.0
8153RR	Excel Brand	9-26	–	–	99	102	98	1.5	Rps1k	3.0
X-2150RR	Dahlco	9-27	–	–	110	98	97	1.5	S	3.3

**Performance and characteristics of Roundup Ready soybean varieties, central zone;  
Becker, Rosemount and Morris, 2000-2002 (continued).**

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2000-2002	2001-2002	2002	Protein	Oil			
M-163RR	Mustang	9-27	–	–	110	102	96	1.6	S	4.3
SOI 1730RR	Sands	9-27	–	–	110	99	99	1.5	Rps1k	2.7
BT7150R	Ziller	9-27	110	108	108	98	96	1.5	Rps1c	2.7
YK-199RR	Yield King	9-27	–	–	107	102	98	1.7	S	3.3
S1613-4	Stine	9-27	–	–	106	102	96	1.6	S	3.7
DSR-181/RR	Dairyland	9-27	–	107	103	100	99	1.8	S	3.7
YK-200RR	Yield King	9-27	–	–	103	100	99	1.8	S	5.0
SOI 1743RR	Sands	9-27	–	–	101	104	94	1.5	S	4.7
DSR-184/RR	Dairyland	9-27	–	–	99	99	100	1.8	Rps1k	3.3
PB-1620RR	PBR	9-28	–	–	110	97	97	1.6	Rps1c	3.3
8193RR	Excel Brand	9-28	–	–	107	102	97	1.9	Rps1k	3.7
7174	Farm Advantage	9-28	–	–	107	102	97	1.5	Rps1k	4.3
2173RR	High Cycle	9-28	–	–	106	101	98	1.7	S	3.3
8172RR	Excel Brand	9-28	–	–	103	100	99	1.7	Rps1k	3.0
9160RR	Dahlco	9-28	–	–	101	97	97	1.5	Rps1c	3.3
6016RR	Gold Country	9-28	–	101	101	99	95	1.4	Rps1c	2.7
K-199RR/STS	KSC/Challenger	9-29	–	–	111	99	97	1.5	Rps1k	3.0
Mean		9-21	52.6 bu/acre	50.8 bu/acre	62.1 bu/acre	36/9%	20.0%			
LSD 20%			8%	10%	10%					

**Performance and characteristics of Roundup Ready soybean varieties, southern zone;  
Fairmont, Lamberton and Waseca, 2000-2002.**

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2000-2002	2001-2002	2002	Protein	Oil			
AG1602	Asgrow	9-16	–	98	95	94	102	1.6	Rps1k	3.7
S15-B1	NK Brand	9-17	–	–	91	102	96	1.5	Rps1	3.0
AG1401	Asgrow	9-17	–	–	89	96	104	1.4	Rps1k	2.7
W 2145RR	Wensman	9-18	–	–	99	100	100	1.4	S	2.3
2131RR	High Cycle	9-18	–	–	98	100	97	1.3	S	3.7
91B64	Pioneer	9-18	96	97	95	97	102	1.6	Rps1c	3.0
1406RR	Garst/AgriPro	9-18	–	–	93	100	98	1.4	S	3.7
1512	Helena	9-19	–	–	101	104	96	1.5	S	2.3
W 2153RR	Wensman	9-19	–	–	90	104	96	1.5	S	3.3
RS199RR	Renk	9-20	–	–	106	95	104	1.9	Rps1k	4.3
W 2162RR	Wensman	9-20	–	–	96	98	99	1.6	S	2.3
S1586-4	Stine	9-21	–	–	95	100	98	1.5	S	1.7
AG2001	Asgrow	9-21	93	90	85	100	102	2.0	Rps1k	3.6
DKB15-51	Dekalb	9-22	–	–	102	99	98	1.5	S	2.7
AG1902	Asgrow	9-23	–	–	96	97	103	1.9	Rps1k	3.7
2173RR	High Cycle	9-24	–	–	101	102	101	1.7	S	4.3
140RR	Sabre	9-24	–	–	100	97	98	1.4	Rps1c	3.7
US S1703RR	US Seeds	9-24	–	–	99	101	102	1.7	S	2.7
C1630R	Crow's	9-24	–	–	98	97	98	1.6	Rps1c	2.7
2063RR	Anderson Seeds	9-24	97	97	97	103	101	2.0	S	3.3
PB-1821RR	PBR	9-24	–	–	96	97	102	1.8	S	3.0
YK-199RR	Yield King	9-24	–	–	93	100	101	1.7	S	4.0
T-7181RR	Thompson	9-24	–	–	92	102	98	1.8	S	4.7
EX-318RR	Latham	9-24	–	–	91	96	103	1.8	S	3.3
T-7166RR	Thompson	9-25	–	–	105	102	99	1.6	Rps1k	4.7

**Performance and characteristics of Roundup Ready soybean varieties, southern zone;  
Fairmont, Lambertson and Waseca, 2000-2002 (continued).**

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2000-2002	2001-2002	2002	Protein	Oil			
S19-V2	NK Brand	9-25	–	102	104	101	98	1.9	Rps1	4.0
PB-1932RR	PBR	9-25	–	–	102	104	99	2.0	S	3.7
W 2186RR	Wensman	9-25	–	–	99	101	101	1.8	Rps1k	4.3
6318RR	Gold Country	9-25	–	–	99	95	105	1.8	S	4.7
2212n	Helena	9-25	–	–	98	104	103	2.0	Rps1	4.3
PS4172	ProfiSeed	9-25	–	97	97	103	98	1.8	Rps1k	3.7
X-2180RR	Dahlco	9-25	–	–	95	99	101	1.8	S	2.7
DG 3183RR	Dyna Gro	9-25	–	–	95	97	105	1.8	S	3.3
GL2109RR	Great Lakes	9-25	–	96	94	101	104	2.1	Rps1c	4.3
297RR Brand	Latham	9-25	–	–	94	102	101	1.8	Rps1k	4.0
BT7150R	Ziller	9-25	97	93	94	96	97	1.5	Rps1c	2.3
RS172RR	Renk	9-25	–	–	92	102	99	1.7	Rps1k	4.0
2000RR	Viking	9-25	99	97	90	101	101	2.0	S	3.0
E3182RR	Top Farm	9-25	–	–	90	96	104	1.7	S	4.3
GR1710	Midwest	9-25	–	–	88	96	98	1.7	Rps1c	3.0
507RR Brand	Latham	9-26	–	–	107	103	98	2.2	S	4.0
GL1903RR	Great Lakes	9-26	–	101	103	103	98	1.9	Rps1k	3.0
K-193RR	KSC/Challenger	9-26	–	–	103	103	97	1.7	S	3.7
K-191RR	Kruger	9-26	–	105	102	98	101	2.8	Rps1k	3.7
BT7211R	Ziller	9-26	102	101	102	99	99	2.1	S	4.0
1122RR	Gold Country	9-26	102	102	102	100	99	2.2	S	4.7
1221RR	Gold Country	9-26	–	102	101	102	99	1.9	Rps1k	4.0
GL2200RR	Great Lakes	9-26	–	–	100	103	98	2.2	S	3.3
1719RR	Anderson Seeds	9-26	–	101	99	100	101	1.7	Rps1k	4.3
92B13	Pioneer	9-26	–	–	99	98	98	2.1	Rps1k	3.0
1813	Helena	9-26	–	–	98	102	99	1.8	Rps1k	3.7
GL1709RR	Great Lakes	9-26	–	97	97	101	99	1.7	S	3.0
S1613-4	Stine	9-26	–	–	96	104	98	1.6	S	3.7
C2142RR	LG Seeds	9-26	–	–	95	102	97	2.1	Rps1c	3.3
DSR-199/RR	Dairyland	9-26	–	98	94	100	99	1.9	Rps1k	3.3
1773	Viking	9-26	–	–	93	99	102	1.7	Rps1k	3.3
AG2103	Asgrow	9-26	–	–	90	103	98	2.1	Rps1k	3.7
367RR Brand	Latham	9-27	–	–	112	101	98	1.9	Rps1k	3.0
2018RR	Garst/AgriPro	9-27	–	104	110	99	98	2.0	Rps1k	4.0
X-1210RR	Dahlco	9-27	–	–	105	101	98	2.1	S	3.0
KB211RR	Kaltenberg	9-27	–	–	105	103	98	2.1	S	3.3
K-191+RR	KSC/Challenger	9-27	–	–	104	95	103	1.7	S	3.7
K-199+RR	KSC/Challenger	9-27	–	–	104	103	98	1.6	Rps1k	3.7
92B38	Pioneer	9-27	–	105	104	101	98	2.3	S	3.0
T-7225RR	Thompson	9-27	–	–	104	104	98	2.2	S	3.7
6223RR	Top Farm	9-27	–	–	104	99	102	2.2	Rps1k	3.7
DSR-228/RR	Dairyland	9-27	106	103	103	103	99	2.3	S	3.3
ADV1910R	Advantage	9-27	–	–	102	101	101	1.9	Rps1k	2.3
PB-1921RR	Prairie Brand	9-27	–	–	102	100	99	1.9	Rps1k	3.0
C1911RR	LG Seeds	9-27	–	–	101	103	98	1.9	Rps1k	2.3
SOI 1940RR	Sands	9-27	–	–	100	103	98	1.9	Rps1k	2.7
X-1180RRC	Dahlco	9-27	–	–	99	100	102	1.8	S	3.0
PB-2117RR	Sansgaard	9-27	–	–	98	103	99	2.2	S	3.3
181CNR	Anderson Seeds	9-27	–	–	97	101	98	1.8	S	2.7
8235RR	Excel Brand	9-27	–	–	97	103	97	2.3	S	2.7

**Performance and characteristics of Roundup Ready soybean varieties, southern zone;  
Fairmont, Lamberton and Waseca, 2000-2002 (continued).**

Brand or Variety	Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2000-2002	2001-2002	2002	Protein	Oil			
AG2105	Asgrow	9-27	-	-	97	99	99	2.1	Rps1k	2.7
7194N	Farm Advantage	9-27	-	-	97	104	103	1.9	Rps1c	4.0
AG2302	Asgrow	9-27	103	99	96	102	98	2.3	Rps1k	2.7
PS4202	ProfiSeed	9-27	-	-	95	103	99	2.0	Rps1k	2.7
210RR	Sabre	9-27	-	-	95	102	96	2.1	S	2.7
Exp.62921R	Ziller	9-27	-	-	95	100	100	2.1	S	4.0
6202RR	Top Farm	9-27	97	96	94	102	98	1.9	S	4.0
PB-1981RR-1	Sansgaard	9-27	-	-	93	102	98	1.9	Rps1k	2.3
PB-1981RR	PBR	9-28	-	-	111	104	97	2.0	Rps1k	3.0
ADV2135R	Advantage	9-28	-	106	108	97	102	2.1	Rps1k	3.0
RRX2214	Mallard	9-28	-	-	107	97	102	2.2	Rps1k	3.7
PS4215	ProfiSeed	9-28	-	-	107	98	101	2.1	Rps1k	3.7
X-1211RR	Dahlco	9-28	-	-	106	98	101	2.1	S	3.0
PS4192	ProfiSeed	9-28	-	103	104	95	104	1.6	S	3.0
SOI 2363RR	Sands	9-28	-	-	104	104	99	2.3	S	3.7
2157RR	Viking	9-28	-	-	102	94	103	2.1	Rps1k	2.0
BT7193R	Ziller	9-28	-	-	102	102	100	1.9	S	3.3
418RR Brand	Latham	9-28	-	-	101	104	97	1.9	S	4.0
SOI 2143RR	Sands	9-28	-	-	101	97	101	2.1	Rps1k	3.3
2201RR	High Cycle	9-28	-	100	101	103	97	2.0	S	3.3
AG2402	Asgrow	9-28	-	99	100	99	102	2.4	Rps1k	3.3
PB-2131RR	Prairie Brand	9-28	-	101	99	101	101	2.1	Rps1k	3.0
DG 3223RR	Dyna Gro	9-28	-	100	99	101	99	2.2	S	4.3
8200RR	Excel Brand	9-28	-	102	98	102	98	2.1	S	3.7
T-7242RR	Thompson	9-28	-	-	97	101	97	2.4	Rps1k	3.7
RS240RR	Renk	9-28	98	96	95	104	97	2.4	S	3.7
YK-200RR	Yield King	9-28	-	-	92	99	102	1.8	S	5.0
US S2101RR	US Seeds	9-28	-	96	91	102	100	2.1	S	3.7
M-211RR	Mustang	9-28	-	95	89	101	102	2.1	S	3.7
T-7205RR	Thompson	9-29	-	-	114	97	101	2.0	Rps1k	2.3
PB-2141RR	Prairie Brand	9-29	-	111	113	98	102	2.1	Rps1k	3.3
2133	Helena	9-29	-	-	112	99	101	2.1	S	2.7
K-202+RR	KSC/Challenger	9-29	-	-	112	97	101	2.0	Rps1k	3.7
S24-K4	NK Brand	9-29	110	109	112	100	100	2.2	Rps1	4.0
K-262-2RR	Kruger	9-29	-	107	107	101	102	2.0	Rps1k	3.3
497RR Brand	Latham	9-29	-	-	107	99	100	2.2	Rps1k	3.3
GR2037	Midwest	9-29	-	-	107	98	100	2.0	S	2.7
DG 3200RR	Dyna Gro	9-29	-	-	107	97	101	2.0	S	3.0
C2130R	Crow's	9-29	-	-	105	97	101	2.1	S	3.3
EX-468RR	Latham	9-29	-	-	105	100	99	2.1	S	2.7
DG 3218RR	Dyna Gro	9-29	-	-	105	102	99	2.0	S	3.7
M-203RR	Mustang	9-29	-	-	104	96	104	2.0	S	3.3
PB-2352RR	PBR	9-29	-	-	103	98	100	2.2	Rps1k	2.7
K-211RR	Kruger	9-29	-	-	102	98	101	1.9	S	2.7
457RR Brand	Latham	9-29	-	102	102	101	98	2.3	S	4.7
RR2111	Mallard	9-29	-	-	102	102	102	2.1	Rps1k	3.0
RS212RR	Renk	9-29	-	-	102	98	99	2.1	Rps1k	3.0
DSR-221/RR	Dairyland	9-29	-	104	101	102	100	2.2	S	3.3
DKB23-51	Dekalb	9-29	99	100	101	100	99	2.3	Rps1	4.3
S2133-4	Stine	9-29	-	-	101	99	97	1.9	Rps1k	4.0

**Performance and characteristics of Roundup Ready soybean varieties, southern zone;  
Fairmont, Lambertson and Waseca, 2000-2002 (continued).**

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2000-2002	2001-2002	2002	Protein	Oil			
2332RR	Garst/AgriPro	9-29	–	100	98	102	98	2.3	S	3.3
92B47	Pioneer	9-29	–	–	98	106	95	2.4	Rps1k	3.0
7212	Farm Advantage	9-29	–	–	98	97	100	2.1	Rps1k	3.0
RR X2012	Mallard	9-29	–	–	97	97	101	2.0	S	2.3
M-201RR	Mustang	9-29	–	105	96	97	101	2.0	Rps1k	3.3
7192	Farm Advantage	9-30	–	–	113	97	102	1.9	S	3.3
YK-233RR	Yield King	9-30	–	–	111	98	103	1.9	Rps1k	3.7
2111RR	Anderson Seeds	9-30	–	–	108	98	101	2.0	S	2.3
T-7232RR	Thompson	9-30	–	–	108	99	99	2.3	Rps1k	2.3
T-7214RR	Thompson	9-30	–	–	108	99	99	2.1	S	3.0
PB-2232RR	Sansgaard	9-30	–	–	107	102	99	2.2	Rps1k	5.0
PB-2421RR	Sansgaard	9-30	–	–	107	100	100	2.4	Rps1k	4.3
S2103-4	Stine	9-30	–	–	106	97	102	2.2	Rps1k	3.0
K-232RR	Kruger	9-30	–	–	104	98	101	2.0	Rps1k	2.7
SOI 2141RR	Sands	9-30	–	–	104	99	101	2.1	S	3.0
S2123-4	Stine	9-30	–	–	104	100	99	2.2	Rps1k	4.0
S1918-4	Stine	9-30	–	–	103	97	101	1.8	S	3.3
DKB22-51	Dekalb	9-30	–	–	100	97	102	2.2	S	3.3
YK-201RR	Yield King	9-30	–	–	100	101	98	1.8	S	3.3
E3211RR	Top Farm	9-30	–	–	96	96	101	2.2	Rps1k	3.0
PB-2112RR	Prairie Brand	10-1	–	–	109	98	101	2.1	S	3.0
T-7252RR	Thompson	10-1	–	–	104	102	96	2.5	S	3.0
M-243RR	Mustang	10-1	–	–	102	95	104	2.4	Rps1k	2.7
8254RR	Excel Brand	10-1	–	–	99	102	100	2.5	S	3.7
DSR-251/RR	Dairyland	10-2	–	–	94	102	98	2.5	S	3.0
Mean		9-27	57.7 bu/acre	59.5 bu/acre	58.4 bu/acre	35.7%	20.0%			
LSD 20%			5%	7%	8%					

**Performance and characteristics of soybean-cyst-nematode-infested (Lamberton, Madelia and Waseca) and non-infested (Fairmont, Lamberton and Waseca) sites, 2000-2002.**

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean						Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score	SCN Rating
			Infested Sites			Non-Infested Sites			Protein	Oil				
			00-02	01-02	2002	00-02	01-02	2002						
91B42	Pioneer	9-18	-	-	108	-	-	94	97	102	1.4	Rps1k+Rps6	3.0	MR
X-1140RRC	Dahlco	9-18	-	-	92	-	-	89	102	94	1.4	Rps1c	3.3	MR
DKB17-51	Dekalb	9-21	-	-	103	-	-	97	98	102	1.7	S	4.3	MR
SOI 198N	Sands	9-22	-	109	88	-	99	105	96	101	1.9	Rps1k	3.3	S
XC18N44	Garst/AgriPro	9-22	-	-	84	-	-	103	101	97	1.8	Rps1k	3.7	MS
X6219cyst	Gold Country	9-23	-	96	84	-	112	100	97	98	1.9	Rps1k	2.3	S
SOI 212N	Sands	9-24	-	-	111	-	-	90	101	102	2.1	Rps1	3.0	MS
S18-N5	NK Brand	9-24	-	-	111	-	-	114	102	98	1.8	S	3.7	MR
K-2220+SCN	Kruger	9-24	115	107	109	100	105	100	102	100	2.0	Rps1	4.7	MR
2181CN	Viking	9-25	-	-	104	-	-	101	101	98	2.1	Rps1	3.3	MR
SOI 2221NRR	Sands	9-26	-	-	113	-	-	101	101	105	2.2	Rps1c	4.3	MS
K-2012SCN	KSC/Challenger	9-27	-	-	106	-	-	88	104	99	1.9	S	4.0	MR
92B12	Pioneer	9-27	-	97	105	-	100	104	95	102	2.1	Rps1k	3.3	R
92B14	Pioneer	9-27	-	-	100	-	-	97	98	99	2.1	S	2.7	MR
PB-1911NRR	PBR	9-27	-	96	99	-	93	89	104	96	1.9	Rps1k	2.3	MR
XR20N20	Garst/AgriPro	9-27	-	-	98	-	-	98	101	105	2.0	Rps1c	4.7	MR
Parker	Minn. AES	9-27	-	-	77	-	-	103	101	100	1.5	Rps1	3.7	S
PB-210N	Prairie Brand	9-28	118	114	117	102	107	93	103	96	2.1	Rps1	3.3	MS
T-3183CN	Thompson	9-28	-	-	115	-	-	91	103	97	1.8	Rps1c	2.7	MR
PB-2092NRR	Prairie Brand	9-28	-	-	113	-	-	98	101	97	2.0	S	3.3	MR
2121NRR	Gold Country	9-28	-	105	113	-	117	101	102	103	2.1	Rps1c	3.7	MR
T-7227CR	Thompson	9-28	-	-	112	-	-	103	101	103	2.2	Rps1c	3.7	MR
EX-388RRN	Latham	9-28	-	-	111	-	-	99	101	104	1.9	Rps1c	4.0	MR
547RRN Br.	Latham	9-28	-	109	106	-	94	96	101	104	2.2	Rps1c	4.0	MR
AG2201	Asgrow	9-28	-	-	106	-	-	103	101	101	2.2	S	3.3	MR
S1962-4	Stine	9-28	-	-	105	-	-	94	101	106	1.9	Rps1c	3.7	MR
PB-1992NRR	Prairie Brand	9-28	-	-	103	-	-	94	103	103	1.9	Rps1c	4.0	MR
SOI 2042NRR	Sands	9-28	-	-	100	-	-	100	99	104	2.0	Rps1c	5.0	MS
2108CNRR	Viking	9-28	-	-	99	-	-	96	99	99	2.1	S	4.0	MR
DSR-191/RR	Dairyland	9-28	-	-	93	-	-	94	99	98	1.9	S	4.3	MR
DKB20-51	Dekalb	9-28	-	95	92	-	93	93	101	97	2.0	S	3.3	S
AG1902	Asgrow	9-28	-	-	83	-	-	95	96	101	1.9	Rps1k	4.3	MR
IA2021	Iowa AES	9-28	-	-	69	-	-	108	92	103	2.1	Rps1k	4.5	S
K-202RR/SCN	KSC/Challenger	9-29	-	104	110	-	92	101	99	103	1.9	Rps1c	4.7	MR
K-221RR/SCN	Kruger	9-29	-	-	109	-	-	90	100	98	1.9	S	4.0	MR
M-193NRR	Mustang	9-29	-	-	109	-	-	87	100	103	1.9	Rps1c	4.0	MS
K-242RR/SCN	Kruger	9-29	-	-	103	-	-	98	99	105	2.2	Rps1c	4.3	MR
S2342-4	Stine	9-29	-	-	103	-	-	90	99	104	2.3	Rps1c	4.3	MR
US S2003RR	US Seeds	9-29	-	-	102	-	-	101	102	104	2.0	Rps1k	4.0	MR
K-193RR	KSC/Challenger	9-29	-	-	99	-	-	98	99	99	1.7	S	3.3	MS
DG 3199NRR	Dyna Gro	9-29	-	-	91	-	-	103	102	102	1.9	Rps1c	4.0	MR
X-1180RRC	Dahlco	9-29	-	-	83	-	-	95	101	98	1.8	S	2.7	MS
T-7211CR	Thompson	9-30	-	-	111	-	-	89	101	98	2.1	S	3.7	MR
K2323SCN	Kruger	9-30	-	-	104	-	-	105	100	97	2.1	Rps1c	3.3	MS
PB-2392NRR	Prairie Brand	9-30	-	-	101	-	-	95	100	100	2.3	Rps1c	4.0	MR
K-233RR	KSC/Challenger	9-30	-	-	99	-	-	102	99	97	2.1	S	3.0	MS
181CNR	Anderson Seed	9-30	-	-	93	-	-	98	98	100	1.8	S	3.0	MS
6218NRR	Gold Country	9-30	88	82	87	98	105	96	101	97	1.8	S	2.3	S
DG 3218RR	Dyna Gro	10-2	-	-	100	-	-	106	101	96	2.1	Rps1k	3.3	MS
T-7246CR	Thompson	10-4	-	-	101	-	-	105	98	97	2.4	Rps1c	3.3	MR
Mean		9-28	39.0*	35.3*	35.1*	56.1*	52.2*	56.0*	36.4%	20.0%				
LSD 20%			5%	6%	16%	3%	4%	7%						

\*Bushels/acre

**Performance of special-use soybean varieties, northern zone;  
Crookston, Moorhead and Shelly, 2000-2002.**

Variety	Releasing Institution	Maturity Date	Yield, Percent of Mean			Percent of Mean	
			2000-2002	2001-2002	2002	Protein	Oil
Jim	N.D. AES	9-20	–	121	110	100	98
UM3	Minn. AES	9-20	91	86	87	102	98
MN0203SP	Minn. AES	9-21	95	99	86	108	93
MN0201	Minn. AES	9-23	–	–	109	106	98
Norpro	N.D. AES	9-23	–	–	106	100	105
Agassiz	Minn. AES	9-23	98	90	105	99	104
Normatto	N.D. AES	9-23	–	–	99	96	101
MN0204SP	Minn. AES	9-23	–	96	88	97	98
Walsh	N.D. AES	9-24	–	–	110	97	106
MN0205SP	Minn. AES	9-24	–	107	97	102	98
MN0202SP	N.D. AES	9-24	97	92	95	97	99
Vannonatto	N.D. AES	9-25	–	–	90	102	99
MN0302	Minn. AES	9-26	103	97	123	99	105
MN0303SP	Minn. AES	9-26	99	93	100	101	98
Nannonatto	N.D. AES	9-28	110	112	90	99	98
Mean		9-23	29.3 bu/acre	31.9 bu/acre	32.2 bu/acre	36.9%	18.5%
LSD 20%			7%	8%	8%		

**Performance of special-use soybean varieties, central zone;  
Becker, Morris and Rosemount, 2000-2002.**

Variety	Releasing Institution	Maturity Date	Yield, Percent of Mean			Percent of Mean	
			2000-2002	2001-2002	2002	Protein	Oil
MN0302	Minn. AES	9-9	–	–	107	94	106
MN0301	Minn. AES	9-10	104	96	104	88	111
Minnatto	Minn. AES	9-10	95	93	95	95	98
Danatto	N.D. AES	9-10	80	75	71	89	105
Proto	Minn. AES	9-11	95	88	103	102	94
MN0601SP	Minn. AES	9-12	95	89	88	111	88
Lambert	Minn. AES	9-13	115	104	104	92	109
Toyopro	Minn. AES	9-14	107	100	108	107	93
MN1303SP	Minn. AES	9-15	103	97	98	111	85
Surge	Minn. & S.D. AES	9-16	128	120	109	96	107
MN1306SP	Minn. AES	9-18	–	–	90	92	101
Kato	Minn. AES	9-19	118	109	107	102	102
MN1101SP	Minn. AES	9-20	–	–	106	102	98
MN1305SP	Minn. AES	9-22	–	–	108	99	102
Parker	Minn. AES	9-23	126	120	112	95	107
Mean		9-15	39.6 bu/acre	42.3 bu/acre	44.2 bu/acre	39.1%	17.8%
LSD 20%			5%	7%	9%		

**Characteristics of special-use soybean varieties, northern zone;  
Crocketon, Moorhead and Shelly, 2000-2002.**

Variety	Releasing Institution	Maturity Rating	Special Characteristics	Hilum Color	Phytophthora Gene	Chlorosis Score	Seeds/Lb
Jim	N.D. AES	00.8	General Purpose	Buff	S	3.0	2,495
UM3	Minn. AES	00.9	Small Seed	Yellow	Rps1	3.7	6,135
MN0203SP	Minn. AES	0.2	Small Seed	Yellow	Rps1	3.7	5,101
MN0201	Minn. AES	0.2	General Purpose	Yellow	Rps1	3.0	3,575
Norpro	N.D. AES	0.4	Tofu	Yellow	S	3.7	2,609
Agassiz	Minn. AES	0.0	General Purpose	Yellow	Rps1	2.3	2,910
Nornatto	N.D. AES	0.2	Small Seed	Yellow	–	2.7	4,054
MN0204SP	Minn. AES	0.2	Small Seed	Yellow	Rps1	3.3	5,470
Walsh	N.D. AES	0.2	General Purpose	Yellow	Rps6	3.0	2,719
MN0205SP	Minn. AES	0.2	Small Seed	Yellow	Rps1	3.0	4,882
MN0202SP	N.D. AES	0.2	Small Seed	Yellow	Rps1	3.0	5,218
Nannonatto	N.D. AES	0.3	Small Seed	Yellow	–	3.3	5,101
MN0302	Minn. AES	0.3	General Purpose	Buff	Rps1k	3.0	2,910
MN0303SP	Minn. AES	0.3	Small Seed	Yellow	Rps1	3.3	5,101
Dannatto	N.D. AES	0.4	Small Seed	Yellow	S	2.7	4,540

**Characteristics of special-use soybean varieties, central zone;  
Becker, Morris and Rosemount, 2000-2002.**

Variety	Releasing Institution	Maturity Rating	Special Characteristics	Hilum Color	Phytophthora Gene	Chlorosis Score	Seeds/Lb
MN0302	Minn. AES	0.3	General Purpose	Buff	Rps1k	3.0	2,867
MN0301	Minn. AES	0.3	General Purpose	Yellow	Rps1	3.3	2,831
Minnatto	Minn. AES	0.9	Small Seed	Yellow	Rps1	2.7	5,148
Dannatto	N.D. AES	0.4	Small Seed	Yellow	S	4.3	4,530
Proto	Minn. AES	0.5	Higher Protein	Yellow	S	4.3	2,603
MN0601SP	Minn. AES	0.6	Higher Protein	Buff	Rps1c	4.0	3,624
Lambert	Minn. AES	0.7	General Purpose	Buff	Rps1	3.0	2,745
Toyopro	Minn. AES	0.9	Higher Protein	Yellow	S	4.0	2,796
MN1303SP	Minn. AES	1.3	Higher Protein	Yellow	S	3.7	2,680
Surge	Minn. & S.D. AES	0.9	General Purpose	Imp. Black	Rps1	2.7	2,254
MN1306SP	Minn. AES	1.3	Small Seed	Yellow	Rps1	2.3	6,380
Kato	Minn. AES	1.3	Large Seed, Higher Protein	Black	Rps1	3.3	2,050
MN1101SP	Minn. AES	1.1	Large Seed, Higher Protein	Yellow	Rps1	3.7	1,841
MN1305SP	Minn. AES	1.3	Large Seed, Higher Protein	Yellow	Rps1	3.3	1,798
Parker	Minn. AES	1.5	General Purpose	Buff	Rps1	4.0	2,422

**Performance of special-use soybean varieties, southern zone;  
Lamberton and Waseca, 2000-2002.**

Variety	Releasing Institution	Maturity Date	Yield, Percent of Mean			Percent of Mean	
			2000-2002	2001-2002	2002	Protein	Oil
MN1901SP	Minn. AES	9-10	98	98	86	109	89
MN1101SP	Minn. AES	9-14	99	97	90	107	95
MN1404SP	Minn. AES	9-14	90	89	83	105	97
MN1306SP	Minn. AES	9-16	93	97	87	99	96
MN1502SP	Minn. AES	9-18	101	101	101	100	103
MN1601SP	Minn. AES	9-18	96	98	94	102	102
MN1603SP	Minn. AES	9-20	96	94	98	99	102
MN1302	Minn. AES	9-21	-	-	117	90	107
MN1403SP	Minn. AES	9-21	112	111	112	99	103
MN1602SP	Minn. AES	9-21	101	99	95	105	101
MN1501SP	Minn. AES	9-22	83	86	96	100	92
MN2001SP	Minn. AES	9-23	112	113	112	106	98
Parker	Minn. AES	9-24	117	118	114	93	110
Vinton 81	Iowa AES	9-24	-	-	98	102	102
IA2050	Iowa AES	9-25	-	-	137	92	108
Mean		9-19	43.5 bu/acre	42.0 bu/acre	40.0 bu/acre	37.6%	18.0%
LSD 20%			4%	5%	7%		

**Performance of special-use Iowa-developed soybean varieties, southern zone;  
Lamberton and Waseca, 2000-2002.**

Variety	Releasing Institution	Maturity Date	Yield, Percent of Mean			Percent of Mean	
			2000-2002	2001-2002	2002	Protein	Oil
IA1007	Iowa AES	9-22	94	92	86	97	104
HP204	Iowa AES	9-23	-	-	109	101	100
IA2025	Iowa AES	9-24	94	94	93	104	102
Parker	Minn. AES	9-25	112	112	112	96	107
IA1005	Iowa AES	9-25	113	111	111	98	101
IA1009	Iowa AES	9-25	113	111	109	94	106
IA2017	Iowa AES	9-25	104	107	104	99	101
IA2042	Iowa AES	9-25	101	100	99	100	100
IA2012	Iowa AES	9-25	99	97	91	97	101
IA2050	Iowa AES	9-26	-	-	126	92	106
IA1008	Iowa AES	9-26	116	112	111	94	103
IA2027	Iowa AES	9-26	96	98	99	99	107
Vinton 81	Iowa AES	9-26	93	91	89	102	100
IA2023	Iowa AES	9-26	84	83	79	103	90
IA2034	Iowa AES	9-27	109	109	116	101	99
IA2028	Iowa AES	9-27	96	96	98	97	105
IA2024	Iowa AES	9-27	86	87	88	103	91
IA2011	Iowa AES	9-28	101	103	105	97	105
IA2033	Iowa AES	9-28	99	99	98	102	101
IA2029	Iowa AES	9-28	89	88	89	100	103
IA2041	Iowa AES	9-29	109	110	115	106	98
IA2040	Iowa AES	9-29	110	111	113	100	98
IA2032	Iowa AES	9-29	100	101	106	100	104
IA2020	Iowa AES	9-29	98	100	102	101	103
IA2030	Iowa AES	9-29	96	96	97	99	101
IA2035	Iowa AES	9-29	88	90	92	105	89
IA2016	Iowa AES	9-30	103	104	111	99	103
Mean		9-26	45.8 bu/acre	46.7 bu/acre	45.0 bu/acre	37.9%	18.2%
LSD 20%			4%	4%	7%		

**Characteristics of special-use soybean varieties, southern zone;  
Lamberton and Waseca, 2000-2002.**

Variety	Releasing Institution	Maturity Rating	Special Characteristics	Hilum Color	Phytophthora Gene	Chlorosis Score	Seeds/Lb
MN1901SP	Minn. AES	1.3	Higher Protein	Yellow	S	3.7	2,849
MN1101SP	Minn. AES	1.1	Large Seed, Higher Protein	Yellow	Rps1	3.3	2,232
MN1404SP	Minn. AES	1.4	Large Seed, Higher Protein	Yellow	Rps1	3.7	2,004
MN1306SP	Minn. AES	1.3	Small Seed	Yellow	Rps1	4.0	5,961
MN1502SP	Minn. AES	1.5	Large Seed, Higher Protein	Yellow	Rps1	3.3	2,232
MN1601SP	Minn. AES	1.6	Large Seed, Higher Protein	Yellow	Rps1c	4.3	2,078
MN1603SP	Minn. AES	1.6	Large Seed	Yellow	Rps1	3.7	1,672
MN1302	Minn. AES	1.3	General Purpose	Yellow	Rps1k	3.3	2,559
MN1403SP	Minn. AES	1.4	Large Seed, Higher Protein	Yellow	Rps1	3.3	2,288
MN1602SP	Minn. AES	1.6	Large Seed, Higher Protein	Yellow	Rps1	3.0	1,841
MN1501SP	Minn. AES	1.5	Small Seed	Buff	S	4.0	5,961
MN2001SP	Minn. AES	2.0	Large Seed, Higher Protein	Yellow	Rps1	2.7	2,050
Parker	Minn. AES	1.5	General Purpose	Buff	Rps1	3.7	2,618
Vinton 81	Iowa AES	2.0	Large Seed, Higher Protein	Yellow	Rps1c	4.0	2,078
IA2050	Iowa AES	2.1	General Purpose	Black	S	4.3	2,745

**Characteristics of special-use Iowa-developed soybean varieties, southern zone;  
Lamberton and Waseca, 2000-2002.**

Variety	Releasing Institution	Maturity Rating	Special Characteristics	Hilum Color	Phytophthora Gene	Chlorosis Score	Seeds/Lb
IA1007	Iowa AES	1.9	Large Seed	Yellow	S	3.0	1,763
HP204	Iowa AES	2.0	Large Seed, Higher Protein	Yellow	S	3.7	2,137
IA2025	Iowa AES	2.4	Lipoxygenase Free	Yellow	S	3.7	2,127
Parker	Minn. AES	1.5	General Purpose	Buff	Rps1	4.0	2,531
IA1005	Iowa AES	1.9	Large Seed, Higher Protein	Yellow	S	3.0	2,422
IA1009	Iowa AES	1.9	General Purpose	Yellow	S	4.7	3,168
IA2017	Iowa AES	2.2	Large Seed, Higher Protein	Yellow	S	5.0	2,232
IA2042	Iowa AES	2.1	Large Seed, Higher Protein	Yellow	S	4.7	2,078
IA2012	Iowa AES	2.2	Large Seed	Yellow	S	3.3	1,791
IA2050	Iowa AES	2.1	General Purpose	Black	S	4.0	2,779
IA1008	Iowa AES	2.0	General Purpose	Yellow	S	4.0	2,762
IA2027	Iowa AES	2.4	Lipoxygenase Free	Yellow	S	3.7	2,127
Vinton 81	Iowa AES	2.0	Large Seed, Higher Protein	Yellow	Rps1c	3.0	2,022
IA2023	Iowa AES	2.4	Small Seed	Yellow	S	3.7	5,808
IA2034	Iowa AES	2.5	Large Seed, Higher Protein	Yellow	S	3.3	2,299
IA2028	Iowa AES	2.4	Lipoxygenase Free	Yellow	Rps1	3.0	2,117
IA2024	Iowa AES	2.5	Small Seed	Yellow	S	3.3	6,292
IA2011	Iowa AES	2.2	Lacks Lipoxygenase 2	Yellow	S	2.0	2,232
IA2033	Iowa AES	2.4	Lipoxygenase Free	Yellow	S	4.0	2,078
IA2029	Iowa AES	2.4	Lipoxygenase Free	Yellow	S	3.7	2,041
IA2041	Iowa AES	2.1	Large Seed, Higher Protein	Yellow	S	3.3	2,335
IA2040	Iowa AES	2.4	Large Seed, Higher Protein	Yellow	S	3.7	1,653
IA2032	Iowa AES	2.5	Lipoxygenase Free	Yellow	S	4.0	1,987
IA2020	Iowa AES	2.3	Large Seed, Higher Protein	Yellow	S	4.3	1,961
IA2030	Iowa AES	2.3	Lipoxygenase Free	Yellow	S	3.7	2,022
IA2035	Iowa AES	2.4	Small Seed	Yellow	S	3.0	6,205
IA2016	Iowa AES	2.2	Large Seed, Higher Protein	Yellow	S	4.0	2,078

***Characteristics of publicly developed soybean varieties entered in 2002 tests.***

Variety	Releasing Institution	Maturity Rating	Phytophthora Gene	BSR Reaction	SCN Reaction	Chlorosis Score
McCall	Minn. AES	00.7	S	S	S	3.7
Jim	N.D. AES	00.8	S	S	S	3.4
Glacier	Minn. AES	00.8	Rps6	S	S	3.3
Agassiz	Minn. AES	0.0	Rps1	S	S	3.3
Traill	N.D. AES	0.0	S	S	S	2.9
Walsh	N.D. AES	0.2	Rps6	S	S	3.0
Barnes	N.D. AES	0.2	Rps6	S	S	4.0
MN0201	Minn. AES	0.2	Rps1	R	S	2.3
MN0301	Minn. AES	0.3	Rps1	S	S	3.3
MN0302	Minn. AES	0.3	Rps1k	S	S	3.0
Lambert	Minn. AES	0.7	Rps1	S	S	3.0
MN0901	Minn. AES	0.9	Rps1	S	S	3.7
MN0902CN	Minn. AES	0.9	Rps1	R	R	3.4
Surge	S.D. + Minn. AES	0.9	Rps1	S	S	3.7
Sargent	N.D. AES	1.0	Rps6	S	S	3.4
MN1301	Minn. AES	1.3	Rps1c	S	S	3.3
Kato	Minn. AES	1.3	Rps1	S	S	3.3
MN1302	Minn. AES	1.3	Rps1k	R	S	3.0
MN1401	Minn. AES	1.4	Rps1	S	S	3.0
Parker	Minn. AES	1.5	Rps1	S	S	3.7
Freeborn	Minn. AES	1.6	Rps1	R	R	3.0
IA1006	Iowa AES	1.6	S	R	S	3.3
MN1801	Minn. AES	1.8	Rps1c	S	S	3.0
Sturdy	Minn. AES	2.0	Rps1	S	S	3.0
IA1008	Iowa AES	2.0	S	S	R	4.0
IA2008R	Iowa AES	2.1	Rps1k	R	S	3.4
IA2021	Iowa AES	2.1	Rps1k	S	S	3.7
IA2050	Iowa AES	2.1	S	S	S	4.3
IA2052	Iowa AES	2.3	S	R	S	3.3

***Performance of public and private soybean varieties ranked in order of susceptibility to white mold infection, Staples, 2002.***

Variety	Brand or Originator	Maturity Rating	White Mold Incidence (%)	Yield Bu/Acre	Lodging 1-5 scale
S02-G2	NK Brand	0.2	0.0	54.3	0.8
AG0201	Asgrow	0.2	0.0	49.0	2.0
90A07	Pioneer	00.7	0.0	47.0	3.0
DKB03-51	Dekalb	0.3	0.0	45.7	2.3
Jim	Minn. AES	00.7	0.0	42.3	4.3
Agassiz	Minn. AES	0	0.3	49.3	3.8
MN0901	Minn. AES	0.9	0.6	48.9	5.0
MN0301	Minn. AES	0.3	1.4	46.5	4.3
MN0302	Minn. AES	0.3	1.5	47.5	3.3
MN0201	Minn. AES	0.2	1.8	43.4	3.5
LSD 5%			NS	NS	1.7

**Performance of public and private soybean varieties ranked  
in order of susceptibility to white mold infection, Morris, 2002.**

Variety	Brand or Originator	Maturity Rating	White Mold Incidence (%)	Yield Bu/Acre	Lodging 1-5 scale
MN1301	Minn. AES	1.3	0.0	38.2	1.3
3205RR	Gold Country	0.5	0.3	47.6	1.8
MN0901	Minn. AES	0.9	0.6	46.2	3.0
91B52	Pioneer	1.5	1.0	56.1	1.8
91B53	Pioneer	1.6	1.0	55.5	1.3
Lambert	Minn. AES	0.7	1.0	39.2	3.0
AG1401	Asgrow	1.4	1.1	54.6	2.5
91B64	Pioneer	1.6	1.1	54.3	3.0
MN1401	Minn. AES	1.4	1.4	45.4	3.0
S10-T1	NK Brand	1.0	1.4	49.9	1.0
S08R4	NK Brand	0.8	1.8	55.3	1.8
Minnatto	Minn. AES	0.9	1.8	37.5	3.5
EX-148RR	Latham	1.4	2.0	59.5	1.5
MN0902 CN	Minn. AES	0.9	3.1	46.0	3.5
6112RR	Gold Country	1.2	3.3	53.6	1.8
MN1302	Minn. AES	1.3	3.4	51.5	3.5
Kato	Minn. AES	1.3	3.8	50.1	2.5
DKB15-51	Dekalb	1.5	4.1	63.9	1.3
Freeborn	Minn. AES	1.6	4.6	44.3	2.5
S15-B1	NK Brand	1.5	4.8	52.1	2.8
MN1801	Minn. AES	1.8	5.3	53.7	2.8
DSR-130/RR	Dairyland	1.3	12.4	49.5	2.8
LSD 5%			5.3	13.9	1.2

**Performance of public and private soybean varieties ranked  
in order of susceptibility to white mold infection, Rosemount, 2002.**

Variety	Brand or Originator	Maturity Rating	White Mold Incidence (%)	Yield Bu/Acre	Lodging 1-5 scale
S15-B1	NK Brand	1.5	2.7	37.3	1.3
91B53	Pioneer	1.6	3.3	47.5	1.3
91B64	Pioneer	1.6	4.0	38.7	1.5
AG1401	Asgrow	1.4	4.0	36.0	1.3
DKB15-51	Dekalb	1.5	5.3	39.1	1.3
S08R4	NK Brand	0.8	7.3	42.8	2.0
6112RR	Gold Country	1.2	7.3	38.6	2.0
S10-T1	NK Brand	1.0	8.0	39.9	3.0
EX-148RR	Latham	1.4	9.0	35.0	2.0
3205RR	Gold Country	0.5	10.0	37.8	3.0
DSR130/RR	Dairyland	1.3	11.3	35.9	2.3
91B52	Pioneer	1.5	11.3	34.5	1.0
LSD 5%			NS	5.5	NS

**Performance of public and private soybean varieties ranked  
in order of susceptibility to white mold infection, Waseca, 2002.**

Variety	Brand or Originator	Maturity Rating	White Mold Incidence (%)	Lodging 1-5 scale
SOI 1200RR	Sands	1.3	0.0	0.0
418RR Brand	Latham	1.4	0.0	0.0
6138RR	Gold Country	1.8	0.0	0.0
91B64	Pioneer	1.6	0.0	0.5
91B92	Pioneer	1.9	0.0	0.0
DKB22-51	Dekalb	2.2	0.0	0.8
DSR199/RR	Dairyland	1.9	0.0	0.0
DSR221/RR	Dairyland	2.2	0.0	0.3
GR2037	Midwest	2.0	0.0	0.0
S18-NS	NK Brand	1.8	0.0	0.5
S20-25	NK Brand	2.0	0.0	0.0
92B13	Pioneer	2.1	0.3	0.0
AG2001	Asgrow	2.0	0.3	1.5
SOI 1940RR	Sands	1.9	0.3	0.8
DG 3218RR	Dyna Gro	2.1	0.5	0.0
IA1006	Iowa AES	1.6	0.5	0.8
IA2021	Iowa AES	2.1	0.5	1.0
GR2255	Midwest	2.2	0.5	0.5
AG2105	Asgrow	2.1	1.3	0.0
S19-V2	NK Brand	1.9	1.8	0.0
BSR-101	Iowa AES	1.9	2.0	1.3
Vinton 81	Iowa AES	2.0	2.0	4.0
AG1902	Asgrow	1.9	6.5	2.8
IA2036	Iowa AES	2.1	13.3	3.8
LSD 5%			2.6	1.2