



SOYBEAN

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

Because the 2004 growing season was significantly cooler than normal the maturity dates are somewhat later than other years. Locations in the northern zone were affected to a greater degree than locations in the southern zone. No varieties were mature at Roseau when a season-ending freeze occurred; consequently, that location was not harvested in 2004.

Pages 59 and 60 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 shows test locations and zone boundaries. All of these tests were planted between May 4 and June 14 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 Jackson, 10 inches at other locations. Plot combines were used to harvest the plots. Shelly and Moorhead data from 2004 were not included due to unfavorable weather.

Page 60 shows results of the very early (northern Minnesota) and page 75 the special southeastern Minnesota variety

tests. These locations were added to provide data for environments not represented by the other location tests. The Roseau location was not harvested in 2004 due to unfavorable weather.

Pages 61-68 provide results from specific tests of available Roundup Ready® varieties adapted to the northern, central and southern production zones. Data in 2004 from Shelly and Moorhead were not included due to unfavorable weather.

Pages 69 and 70 show results from the special performance tests of soybean-cyst-nematode-resistant varieties in “infested” field sites near Lamberton, Waseca and Madelia in the southern zone and Danube, Danvers and Holloway in the central zone. “Non-infested” field sites were located near Lamberton, Jackson and Waseca in the southern zone and Becker, Morris and Rosemount in the central zones. Planting techniques were the same as for the regular performance tests.

Pages 71-75 provide performance and characteristics data from special-use soybean variety tests. These tests were conducted to provide reliable data for growers interested in producing these types of soybeans, which are typically grown under contract.

Page 76 provides important variety characteristics of publicly developed varieties entered in the 2004 tests.

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% of the pods show their geneti-

cally programmed mature color. These dates for 2004 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 to 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 were provided by their owners, and 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 2004 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 correctly compare yields, do so 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.



Soybean maturity zones.

In 2004 the yield information is presented as a percent of the mean of the test. The actual mean value is given at the bottom of each table. Values over 100 indicate the variety had a yield greater than the mean while those 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% level of significance is used in all these tables. This means that yield differences exceeding the stated LSD value are real 80% 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 Foxhome in 2004. 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. Specific scores and evaluation dates from the 2004 tests are provided at the following web site 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 2004 season only. Protein and oil information is**

presented on a percent of the mean of the test. The actual mean values are 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, while those 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% moisture basis. This formula converts the protein and oil values to another moisture basis:

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

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

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 their 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 pages 69 and 70. The ratings for SCN resistance were determined using nematode counts from naturally infested field sites and molecular markers.

For proper management of fields with SCN it is recommended that varieties with an R rating be planted. If the SCN

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
<i>Rps1,1a</i>																											
<i>Rps1b</i>																											
<i>Rps1c</i>																											
<i>Rps1k</i>																											
<i>Rps3</i>																											
<i>Rps4</i>																											
<i>Rps6</i>																											

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 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.mnsoybean.org

White Mold

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

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. MN0304, MN 0902CN, MN 1302, Freeborn, IA1006,

and IA2008R are available public varieties with resistance to BSR. Latham L1840 Brand, Latham E1936R, Latham L2336 Brand and Viking 0.2199 are privately developed varieties reported to be resistant to BSR.

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

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 or telephone number 612-625-7766.

Brand names, addresses, phone and web URL or e-mail information for companies entered in 2004 tests.

Advantage Brand Soybean Seed (Advantage) , 17303 Highway 22, Good Thunder, MN 56037	507-278-4087	KSC@mnica.net
Garst Seed Company (Garst/Agripro) , 2369 330th St. Box 500, Slater, IA 50244	888-GOGARST	www.garstseed.com
Albert Lea Seed House (Viking) , P.O. Box, 127, 1414 W. Main, Albert Lea, MN 56007	507-373-3161	www.alseed.com
Anderson Seeds (Anderson) , 37825 County Road 63, St. Peter, MN 56082	507-246-5032	njandrsn@hickorytech.net
Circle C Seeds (Northern Soypro) , 2493 380th Street, Gary, MN 56545	218-356-8214	ccseeds8214@arvig.net
Dairyland Seed Co., Inc. (Dairyland) , PO Box 958 3570 Hwy H, West Bend, WI 53095	515-233-9610	www.dairylandseed.com
Dyna-Gro (Dyna-Gro) , P.O. Box 10 Wall Lake, IA 51466	712-852-2908	al.schmitz@uap.com
Dyna-Gro Seed (Dyna-Gro) , Northern Plains	218-731-6792	stan.rund@uap.com
Excel Brand (Excel Brand) , 116 E. State, Camp Point, IL 62320	515-233-9610	rsecrist@dairylandseed.com
Earthwise Processors, Inc. (Earthwise) , Moorhead, MN 56560	218-287-5510	ryan@earthwisepro.com
Farm Advantage , 1275 Hwy 69, Belmond, IA 50421	641-444-3344	jmeints@kalnet.com
Galena Genetics (Galena) , 501 Main St Box 548, Ormsby, MN 56162	507-736-2004	nes@rconnect.com
Gold Country Seed, Inc. (GCS) , 16506 Hwy. 15 N, P.O. Box 604, Hutchinson, MN 55350	320-587-1050	jleafblad@goldcountryseed.com
Helena Chemical Company (Helena) , 7137 Vista Drive, West Des Moines, IA 50266	515-309-3468	ravelings@helenachemical.com
Hyland Seeds (Hyland) , 2 Hyland Drive, Blenheim, Ontario, Canada N0P1A0	800-265-7403	jolmsted@hylandseeds.com
Kaltenberg Seeds (Kaltenberg) , 5506 State Rd. 19, Waunakee, WI 53597	608-849-5021	kfsseeds@chorus.net
Kruger Seed Company (Kruger) , Highway 20 East, Box A, Dike, IA 50624	800-772-2721	info@kruegerseed.com
KSC/Challenger (KSC/Challenger) , Highway 20 East, Box A, Dike, IA 50624	800-772-2721	info@kruegerseed.com
Latham Farms (Latham) , 131 180th St., Alexander, IA 50420	641-692-3258	markg@lathamseeds.com
Latham Seed Company (Latham) , 131 180th St., Alexander, IA 50420	641-692-3258	markg@lathamseeds.com

LG Seeds (LG Seeds) , 22827 Shissler Rd, Elmwood IL 61529	715-821-7788	www.lgseeds.com
Mallard Seed Co. (Mallard) , P.O. Box 637, Plainview, MN 55964	507-534-2300	mallardinc@aol.com
Midwest Seed Genetics (Midwest) , 23751 Highway 30 East, Carroll, IA 51401	800-369-8218	www.midwestseed.com
Monsanto (Asgrow/Dekalb) , 800 N. Lindberg Blvd, St. Louis, MO 63167	815-758-9323	www.monsanto.com
Mustang Seeds (Mustang) , Madison, SD 57042	605-480-1047	info@mustangseeds.com
Northland Seed & Grain Corp (Northland Organics) , 462 Holly Ave, St Paul, MN 55102	651-221-4402	Soybean@northlandorganic.com
Nutech Seed (Nutech Seed) , 6131 North Fork Rd, Ames, IA 50010	877-561-9067	—
Pattison Bros (Pattison Bros Brand) , 701 King St, Box 670, Fayette, IA 52142	800-632-5952	dillont@pattisonbros.com
Peterson Farm Seed (PFS) , 3104 164th Ave SE, Harwood, ND 58042	701-282-7476	jerad@greatsoybeans.com
Pioneer Hi-Bred International, Inc. (Pioneer) , 99 Navaho Ave. Suite 101A, Mankato MN 56001	507-625-3045	www.pioneer.com
Proseed (Proseed) , 705 E Brewster, Harvey, ND 58341	701-324-4177	proseed@ndak.net
Prairie Brand Research (PBR) , 15 X Ave., Story City, IA 50248	515-733-2101	mike@prairiebrandseed.com
Prairie Brand Seed Company (Prairie Brand) , 15 X Ave., Story City, IA 50248	515-733-2101	mike@prairiebrandseed.com
Renk Seed Co. (Renk) , 6800 Wilburn Rd., Sun Prairie, WI 53590	608-837-7351	www.renkseed.com
Richland Organics (Richland Organics) , 100N 10th St, Breckenridge, MN 56520	218-643-1797	andy@richlandorganics.com
Sand Seed Service, Inc. (Sands) , PO Box 648, Marcus, IA 51035	712-376-4135	soi@midlands.net
Sansgaard Seed Farms, Inc. (Sansgaard) , 15 X Avenue, Story City, IA 50248	515-733-2101	mike@prairiebrandseed.com
Seeds 2000 (Seeds 2000) , P.O. Box 200, Breckenridge, MN 56520	888-786-7333	seeds2000@seeds2000.net
Sodak Genetics (Sodak Genetics) , Box 2207A, SDSU, Brookings, SD 57007	605-688-5418	jackiemansen@sdstate.edu
Star Brand Research (Star) , P.O. Box 648 Marcus IA 51035	712-376-4135	soi@midlands.net
Stine Seed Co. , 2225 Laredo Trail, Adel, IA 50003	800-362-2510	www.stinseed.com
Syngenta Seeds (NK Brand) , 26241 Anna Lake Rd, Underwood, MN 56586	218-826-6380	jay.stroh@syngenta.com
Syngenta Seeds (NK Brand) , Golden Valley, MN 55427	800-445-0956	gary.prescher@syngenta.com
Tech Brand (Tech Brand) , 40321 130th Ave., Leland, IA 50453	641-567-3350	—
Thompson Seeds (Thompson Seeds) , 40321 130th Ave., Leland, IA 50453	641-567-3350	—
Thunder Seed (Thunder) , 3008 210th St. N, Hawley, MN 54549	888-684-8633	Peterman@fargocity.com
Top Farm Hybrids (Top Farm) , P.O. Box 850, Cokato, MN 55321	320-286-5516	ron@topfarm.com
Trelay Seeds (High Cycle) , 11623 State Road 80, Livingston, WI 53544	608-943-6363	jasonb@trelay.com
Wensman Seed Company (Wensman) , P.O. Box 190, Wadena, MN 56482	218-631-2954	wensman@wensmanseed.com
Ziller Seed Co., Inc. (Ziller) , 76374 380th St, Bird Island, MN 55310	320-365-3674	zscsales@zillerseed.com

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, 2002-2004.**

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2002-2004	2003-2004	2004	Protein	Oil			
Jim	N.D. AES	9-23	103	107	145	98	99	00.8	S	3.6
MN0071	Minn.AES	9-26	94	97	82	101	103	00.7	Rps1	3.9
90B43	Pioneer	9-27	106	109	108	100	102	0.4	Rps1c	3.4
Traill	N.D. AES	9-30	110	116	145	98	98	0.0	S	3.5
0.702	Northern Soypro	10-2	—	—	126	102	97	00.8	S	3.7
MN0302	Minn.AES	10-3	101	101	94	98	103	0.3	Rps1k	3.8
Walsh	N.D. AES	10-3	96	93	74	97	102	0.2	Rps6	3.5
Glacier	Minn.AES	10-5	94	89	74	105	94	00.8	Rps6	4.2
MN0201	Minn.AES	10-6	96	100	102	107	95	0.2	Rps1	3.3
Barnes	N.D. AES	10-6	105	102	96	97	102	0.2	Rps6	3.8
MN0304	Minn.AES	10-6	98	89	90	98	106	0.3	Rps1k	3.5
Lambert	Minn.AES	10-7	105	102	83	101	101	0.7	Rps1	3.8
Mean		10-2	33.6 bu/a	28.6 bu/a	21.2 bu/a	38.2%	15.6%			
LSD 20%			5%	8%	15%					

**Performance and characteristics of public and private soybean varieties, central zone;
Becker, Morris and Rosemount, 2002-2004.**

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2002-2004	2003-2004	2004	Protein	Oil			
MN0302	Minn. AES	9-17	95	95	88	99	106	0.3	Rps1k	3.7
Lambert	Minn. AES	9-18	106	105	100	100	104	0.7	Rps1	4.5
MN0902CN	Minn. AES	9-18	100	100	90	102	98	0.9	S	3.7
Barnes	N.D. AES	9-18	88	85	72	98	106	0.2	Rps6	4.1
MN1005	Minn. AES	9-21	107	110	111	97	106	1.0	Rps1k	4.3
Surge	Minn. & S.D. AES	9-22	100	101	94	103	102	0.9	Rps1	4.0
8003	Northern Soypro	9-22	—	—	85	102	101	1.1	Rps1k	4.3
91M10	Pioneer	9-23	—	114	111	102	102	1.1	S	4.3
MN1302	Minn. AES	9-23	107	107	100	97	102	1.3	Rps1k	4.0
PB-183	Prairie Brand	9-25	—	—	124	100	101	1.8	Rps1	3.8
Kato	Minn. AES	9-25	98	99	100	108	97	1.4	Rps1	3.9
MN1006CN	Minn. AES	9-25	100	101	81	99	103	1.0	Rps1	4.3
FA1545	Farm Advantage	9-26	119	118	119	104	101	1.4	S	4.3
Parker	Minn. AES	9-26	99	101	102	103	101	1.5	Rps1	4.2
91B53	Pioneer	9-27	113	113	105	105	99	1.6	S	4.2
Freeborn	Minn. AES	9-27	99	97	89	105	102	1.6	Rps1	3.9
PB-178	Prairie Brand	9-28	122	120	118	104	101	1.7	S	4.2
1919	Kruger	9-28	—	123	116	105	101	1.5	S	4.1
Mean		9-23	47.6 bu/a	42.4 bu/a	40.9 bu/a	35.0%	17.6%			
LSD 20%			4%	6%	7%					

**Performance and characteristics of public and private soybean varieties, southern zone;
Jackson, Lamberton and Waseca, 2002-2004.**

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2002-2003	2003-2004	2004	Protein	Oil			
MN1302	Minn. AES	9-19	99	99	90	107	97	1.3	Rps1k	4.3
SOI187	Sands	9-23	112	110	104	105	99	1.8	Rps1	4.3
Parker	Minn. AES	9-23	104	104	97	103	97	1.5	Rps1	4.4
MN1801	Minn. AES	9-24	97	94	89	96	102	1.8	Rps1c	4.3
L1840 Brand	Latham	9-25	—	—	112	99	101	1.8	S	4.0
1884	Viking	9-25	—	120	111	99	98	1.8	S	3.9
280 Brand	Latham	9-25	—	112	106	99	100	1.7	S	3.5
1919	Kruger	9-25	—	v	105	99	99	1.5	S	4.2
FA1846	Farm Advantage	9-25	113	108	96	100	98	1.8	S	4.1
PB-183	Prairie Brand	9-26	—	120	103	104	100	1.8	Rps1	3.8
PB-178	Prairie Brand	9-26	105	106	100	99	99	1.7	S	3.9
IA1006	Iowa AES	9-26	99	99	97	102	100	1.6	S	4.1
Freeborn	Minn. AES	9-27	93	97	92	99	98	1.6	Rps1	3.7
IA1008	Iowa AES	9-27	—	93	80	97	104	2.0	S	4.3
NT-222	Nutech	9-28	—	—	107	99	102	2.2	S	4.2
PB-210N	Prairie Brand	9-28	—	—	104	98	100	2.1	Rps1	4.3
92B12	Pioneer	9-29	—	—	105	101	98	2.1	Rps1k	4.0
92M10	Pioneer	9-29	—	109	101	100	100	2.1	Rps1c	3.8
IA2050	Iowa AES	9-29	108	104	101	99	100	2.1	S	4.3
FA2244	Farm Advantage	9-30	111	108	100	101	101	2.2	Rps1	4.3
2525+	Kruger	10-2	—	—	105	100	99	2.4	S	4.4
Sturdy	Minn. AES	10-2	97	100	93	97	104	2.0	Rps1	4.1
IA2008R	Iowa AES	10-3	102	101	97	100	104	2.1	Rps1k	4.1
2320SCN	Kruger	10-4	—	—	107	99	99	2.3	S	4.3
Mean		9-27	44.7 bu/a	41.1bu/a	48.8 bu/a	36.5%	18.0%			
LSD 20%			5%	6%	7%					

**Performance and characteristics of very early maturing soybean varieties;
Grand Rapids, Kennedy, Roseau and Thief River Falls, 2002-2004.**

Variety	Maturity Rating	Yield, Percent of Mean			Percent of Mean		Phytophthora Gene	Chlorosis Score
		2002-2004	2003-2004	2004	Protein	Oil		
MN0071	00.7	100	102	136	96	108	Rps1	3.5
Jim	00.7	104	102	111	97	100	S	3.6
90A07	00.7	99	97	92	100	97	S	3.6
Traill	0.0	96	98	89	102	98	S	3.1
RG200RR	0.0	—	—	87	101	98	S	3.1
Mean		26.8 bu/a	24.4 bu/a	9.1 bu/a	36.6%	14.9%		
LSD 20%		4%	7%	24%				

Performance and characteristics of conventional and Roundup Ready public and private soybean varieties, far northern zone; Roseau, Thief River Falls, Crookston and Kennedy, 2002-2004.

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2002-2004	2003-2004	2004	Protein	Oil			
MN0071	Minn. AES	10-1	—	106	140	99	100	00.7	Rps1	3.6
04009RR	PFS	10-1	—	98	101	98	103	00.9	Rps1k	3.9
S0076-4	Stine	10-2	—	—	143	98	102	00.4	Rps1k	3.7
PB-0094RR	Prairie Brand	10-2	—	—	141	99	104	00.9	Rps1k	3.3
30D09	Dyna-Gro	10-2	—	107	132	96	105	00.9	Rps1k	3.9
W20077RR	Wensman	10-2	—	—	130	98	104	00.7	Rps1k	3.8
0082RR	Star	10-2	—	—	123	99	100	00.5	Rps1k	3.3
NF-0089RR	Nutech Seed	10-2	—	—	116	99	102	00.8	Rps1k	4.0
0051RR	Seeds 2000	10-15	—	—	161	102	96	00.5	S	3.7
W20091RR	Wensman	10-15	—	—	146	99	101	00.9	Rps1k	3.4
Emerson	Hyland Seeds	10-15	—	—	138	95	109	00.6	S	3.6
T-0121RR	Thompson Seeds	10-15	—	—	133	95	105	0.1	S	3.4
DKB009-51	DeKalb	10-15	—	—	123	95	105	00.9	—	3.8
90A07	Pioneer	10-15	—	102	122	105	99	00.7	S	3.5
PB-0052RR	Prairie Brand	10-15	—	—	120	99	102	00.6	S	3.6
AG00802	Asgrow	10-15	—	—	118	101	93	00.8	—	3.9
Jim	N.D. AES	10-15	—	101	105	95	99	00.8	S	3.6
PB-00943RR	Prairie Brand	10-15	—	—	105	99	106	0.1	Rps1k	3.6
NF-0101A	Nutech Seed	10-15	—	—	101	97	103	0.1	Rps1	3.7
DST0604/RR	Dairyland	10-15	—	—	98	95	103	00.8	S	4.1
Trall	N.D. AES	10-15	—	97	96	101	95	0.0	S	3.1
8008RR	Excel Brand	10-15	—	—	92	96	106	00.8	S	3.9
03005RR	PFS	10-15	—	103	88	101	97	00.5	S	3.6
DSR-007/RR	Dairyland	10-15	—	—	82	104	98	00.7	S	3.6
DSR-C900/RR	Dairyland	10-15	—	—	78	100	99	00.9	S	3.8
RG200RR	RoughRider Genetics	10-15	—	—	77	101	92	0.0	S	3.1
SX04200	Dyna-Gro	10-15	—	—	72	103	101	00.6	S	3.5
04007RR	PFS	10-15	—	96	60	99	105	00.7	S	3.7
PB-0072RR	Prairie Brand	10-15	—	—	57	104	101	0.1	S	3.3
0071RR	Seeds 2000	10-15	—	—	56	102	102	00.7	S	3.7
DKB005-51	DeKalb	10-15	—	85	47	101	101	00.5	—	3.8
Mean		10-11	—	30.6 bu/a	9.4 bu/a	37.0%	15.1%			
LSD 20%			—	6%	16%					

Performance and characteristics of Roundup Ready soybean varieties, northern zone; Crookston, Moorhead and Shelly, 2002-2004.

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2002-2004	2003-2004	2004	Protein	Oil			
E34094RR	Top Farm	9-27	—	—	118	101	106	00.8	S	3.5
W20091RR	Wensman	9-28	—	103	123	107	101	0.9	Rps1k	3.8
PB-0094RR	Prairie Brand	9-29	96	109	129	101	108	00.9	Rps1k	3.5
M-025RR	Mustang	9-30	—	—	152	99	106	0.2	S	3.0
RR20-11	Proseed	9-30	—	92	123	101	106	0.1	S	4.2
RG200	Rough Rider Genetics	10-1	—	104	128	108	91	0.0	Rps1	3.5
PB-0052RR	Prairie Brand	10-1	—	102	123	100	106	00.6	S	3.5
PB-0234RR	PBR	10-2	—	—	145	101	102	0.2	S	3.6
PB-0134RR	Sansgaard	10-2	—	—	133	101	102	0.1	S	4.0
NT-0121+RR	Nutech Seed	10-2	—	—	133	100	103	0.1	S	3.9
90B11	Pioneer	10-2	—	—	123	103	101	0.1	S	3.3
033RR	KSC/Challenger	10-2	—	—	114	104	101	0.3	S	3.1
RR00	Proseed	10-2	—	92	113	104	107	00.0	S	4.3
RR Ramsey	Hyland Seeds	10-2	—	103	102	108	101	00.5	S	3.7
PB-0232RR	Sansgaard	10-3	96	98	113	104	102	0.2	S	3.6
M-023RR	Mustang	10-3	102	105	111	99	109	0.2	Rps1k	3.8
M-033RR	Mustang	10-4	—	105	126	102	101	0.3	Rps1k	3.8
RR Royal	Hyland Seeds	10-4	—	—	124	104	99	00.9	S	3.5
RR20-05	Proseed	10-4	—	—	109	101	103	00.5	S	3.9
RR Reliant	Hyland Seeds	10-4	—	—	105	107	101	0.3	S	3.7
AG0301	Asgrow	10-5	—	108	125	97	106	0.3	—	3.7
90M20	Pioneer	10-5	—	—	123	99	103	0.2	Rps1k	3.6
055RR	Kruger	10-5	—	102	114	99	107	0.3	S	3.8
PB-0799RR	Prairie Brand	10-5	100	100	112	103	102	0.5	Rps1k	3.3
90B51	Pioneer	10-5	111	105	111	97	109	0.5	Rps1c	2.9
NT-0414RR	Nutech Seed	10-5	—	—	105	106	101	0.3	S	3.3
36R01	Dyna-Gro	10-6	—	—	120	100	106	0.1	S	3.8
05061RR	PFS	10-6	—	—	120	102	104	0.6	Rps6	3.6
PB-00943RR	PBR	10-6	—	—	114	102	101	0.1	Rps1k	3.3
066RR	Kruger	10-6	—	—	112	100	109	0.3	S	3.7
S0536-4	Stine	10-6	—	100	110	105	100	0.5	Rps1k	3.6
PB-0643RR	PBR	10-6	—	95	109	102	104	0.5	Rps1k	3.0
022RR	KSC/Challenger	10-6	—	—	79	104	103	0.2	S	3.6
2021RR	Seeds 2000	10-6	93	98	77	99	109	0.2	Rps1c	3.6
PB-0614RR	Sansgaard	10-7	—	—	115	104	105	0.5	Rps6	3.4
RR Rugged	Hyland Seeds	10-7	—	—	111	103	102	0.3	S	4.2
066RR	KSC/Challenger	10-7	—	98	105	102	106	0.6	S	3.3
0661RR	Star	10-7	—	—	78	99	106	0.6	S	3.6

Performance and characteristics of Roundup Ready soybean varieties, northern zone; Crookston, Moorhead and Shelly, 2002-2004 (continued).

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2002-2004	2003-2004	2004	Protein	Oil			
RREXP 0.2E	Proseed	10-7	—	—	77	101	105	0.2	S	4.1
S0206-4	Stine	10-7	—	—	61	100	104	0.2	S	3.8
8040RR	Excel Brand	10-8	—	—	114	107	99	0.4	S	3.8
PB-0532RR	PBR	10-8	108	101	110	104	102	0.5	S	3.7
0305RR	PFS	10-8	—	108	107	102	102	0.5	S	4.3
T-0626RR	Thompson Seeds	10-8	—	—	101	105	99	0.3	S	3.8
PB-0554RR	Prairie Brand	10-8	—	—	100	99	107	0.5	S	3.7
PB-0754RR	Sansgaard	10-8	—	—	91	105	100	0.7	Rps1	3.8
T-0525RR	Thompson Seeds	10-8	—	—	77	102	111	0.3	S	4.2
W2074RR	Wensman	10-8	—	—	77	104	106	0.6	S	3.6
033RR	Kruger	10-8	—	—	72	105	99	0.3	S	3.9
T-0252RR	Thompson Seeds	10-8	—	—	66	101	104	0.1	S	4.2
M-055RR	Mustang	10-9	—	—	107	104	101	0.5	S	3.4
NT-0606RR	Nutech Seed	10-9	—	—	99	105	103	0.3	S	3.6
DST08-000/RR	Dairyland	10-9	—	—	97	99	107	0.8	S	3.9
DSR-040/RR	Dairyland	10-9	100	96	89	98	107	0.5	S	3.6
0505RR	Star	10-9	—	98	83	101	102	0.5	S	3.3
W2062RR	Wensman	10-9	—	98	81	105	99	0.5	S	3.5
RG405	Rough Rider Genetics	10-9	—	—	70	102	104	0.5	Rps6	4.3
W2036RR	Wensman	10-9	—	—	58	107	102	0.3	S	4
S0606-4	Stine	10-9	—	—	42	100	99	0.5	S	4.0
DSR-050/RR	Dairyland	10-12	—	93	46	101	105	0.6	S	4.1
S0504-4	Stine	10-12	—	—	29	98	104	0.5	Rps1	4.3
E3M030RR	Top Farm	—	—	—	0	0	0	0.3	S	4.7
Mean		10-6	41.4 bu/a	33.0 bu/a	24.3 bu/a	35.1%	16.4%			
LSD 20%			5%	7%	12%					

Performance and characteristics of Roundup Ready soybean varieties, central zone; Becker, Rosemount and Morris, 2002-2004.

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2002-2004	2003-2004	2004	Protein	Oil			
AG0602	Asgrow	9-15	—	—	89	99	99	0.6	—	4.3
90M60	Pioneer	9-16	—	—	94	100	97	0.6	Rps1c	3.9
RR0069	Proseed	9-16	—	—	88	96	103	0.6	Rps1k	4.4
RR REGAL	Hyland Seeds	9-16	—	85	79	97	101	0.5	S	3.7
PB-0554RR	Prairie Brand	9-17	—	—	98	96	106	0.5	S	4.4
PB-0532RR	PBR	9-17	—	99	93	100	99	0.5	S	3.9
E34623RR	Top Farm	9-17	—	—	83	98	104	0.6	S	3.4
DSR-075/RR	Dairyland	9-18	—	95	90	101	102	0.8	Rps1k	4.2
AG0801	Asgrow	9-19	99	100	107	95	103	0.8	—	4.1
RR30-50	Proseed	9-19	—	—	96	100	101	0.5	S	4.3
M-075RR	Mustang	9-19	—	—	95	97	103	0.7	Rps1	4.5
PB-0834RR	PBR	9-19	—	—	93	100	102	0.8	Rps1k	4.1
T-0676+RR	Thompson Seeds	9-19	—	—	83	101	98	0.3	Rps1	4.5
RR RALLY	Hyland Seeds	9-19	—	—	82	103	99	0.5	S	3.8
2092RR	High Cycle	9-20	—	—	108	100	96	0.9	Rps1k	4.0
FA7075	Farm Advantage	9-20	—	—	101	98	102	0.7	Rps1	4.8
6052RR	Top Farm	9-20	—	—	98	101	101	0.5	S	4.2
AG1102	Asgrow	9-21	—	—	112	95	102	1.1	—	3.9
E34944RR	Top Farm	9-21	—	—	112	99	98	0.9	Rps1k	4.1
AG1001	Asgrow	9-22	—	—	109	100	99	1.0	—	4.1

**Performance and characteristics of Roundup Ready soybean varieties, central zone;
Becker, Rosemount and Morris, 2002-2004. (continued).**

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2002-2004	2003-2004	2004	Protein	Oil			
PB-0812RR	Sansgaard	9-22	104	101	109	107	96	0.8	S	3.8
KB094RR	Kaltenberg	9-22	—	—	101	100	100	0.9	Rps1	3.7
SD1081RR	Sodak Genetics	9-22	95	98	100	102	99	0.8	Rps1	4.0
RR20-80	Proseed	9-22	—	—	98	99	102	0.8	Rps1k	4.0
2209RR	Thunder	9-22	—	—	94	99	103	0.9	Rps1k	3.8
RS101RR	Renk Seed	9-22	102	100	94	101	97	1.0	Rps1c	4.3
0410RR	PFS	9-22	—	—	91	101	97	1.0	Rps1k	4.4
91M11	Pioneer	9-22	—	—	86	104	97	1.1	Rps1k	3.6
RREXP 0.9P	Proseed	9-23	—	—	109	98	99	0.9	S	4.2
RS093RR	Renk Seed	9-23	—	100	104	104	97	0.9	S	4.2
32F12	Dyna-Gro	9-23	—	—	100	103	98	1.2	S	3.6
EXP.4431OR	Ziller	9-23	—	—	99	106	95	1.0	S	3.8
S0943-4	Stine	9-23	—	104	99	104	96	1.0	Rps1k	4.8
PB-1063RR	Prairie Brand	9-23	—	96	98	103	98	1.0	S	4.1
101RR	Kruger	9-23	—	—	84	103	98	1.1	S	4.5
AG1401	Asgrow	9-24	106	107	112	98	102	1.4	—	3.9
PB-0954RR	Sansgaard	9-24	—	—	110	101	100	0.9	S	4.3
RRX0914	Mallard	9-24	—	—	109	98	99	0.9	Rps1k	3.8
37A10	Dyna-Gro	9-24	—	—	108	103	97	1.0	Rps1k	4.3
C0990RR	LG Seeds	9-24	—	108	108	101	99	0.9	S	4.0
PB-0923RR	Prairie Brand	9-24	—	99	108	103	99	0.9	Rps1k	4.2
T-1444RR	Tech Brand	9-24	—	—	105	103	97	1.4	Rps1c	4.1
X315R	NK Brand	9-24	—	—	97	101	99	1.5	Rps1c	3.8
M-095RR	Mustang	9-25	—	—	115	98	103	0.9	S	4.2
W2121RR	Wensman	9-25	—	—	107	96	101	1.2	Rps1c	3.8
1499RR	Garst/Agripro	9-25	—	102	104	99	103	1.4	S	3.8
PB-1294RR	Prairie Brand	9-25	—	—	104	91	104	1.2	Rps1c	3.9
SO11441RR	Sands	9-25	—	101	101	103	98	1.4	S	4.3
C1410RR	LG Seeds	9-25	105	103	99	99	103	1.4	S	4.2
C1212RR	LG Seeds	9-25	—	—	98	95	102	1.2	S	4.2
T-1212RR/SCN	Tech Brand	9-25	—	—	98	96	98	1.2	Rps1c	3.4
2142RR	High Cycle	9-25	—	99	97	102	98	1.4	S	4.1
M-115RR	Mustang	9-25	—	—	95	95	101	1.1	Rps1c	3.9
E1230R	Latham	9-25	—	—	93	99	102	1.2	S	4.2
0511RR	PFS	9-25	—	—	90	95	99	1.1	Rps1c	4.4
PB-1354RR	Sansgaard	9-25	—	—	88	104	98	1.3	S	3.7
SD1091RR	Sodak Genetics	9-25	91	89	81	107	97	0.9	Rps1	4.1
S1300-4	Stine	9-26	—	—	111	99	101	1.3	S	4.2
NT-1313RR/SCN	Nutech Seed	9-26	—	—	109	100	98	1.3	Rps1k	3.8
33M14	Dyna-Gro	9-26	—	—	107	101	100	1.4	S	4.0
RR1313	Mallard	9-26	—	—	106	98	103	1.3	S	3.7
AG1603	Asgrow	9-26	—	—	105	101	101	1.6	—	4.2
151CNR	Anderson Seeds	9-26	—	—	104	99	104	1.5	Rps1k	4.3
91M51	Pioneer	9-26	—	—	104	101	102	1.5	Rps1k	4.2
FA7123	Farm Advantage	9-26	—	—	104	98	104	1.2	Rps1k	4.1
PB-1254RR	Sansgaard	9-26	—	—	104	100	101	1.2	Rps1k	4.3
152RR	Kruger	9-26	—	—	102	103	101	1.5	S	4.3
3512RR	Gold Country	9-26	—	—	102	92	104	1.2	Rps1k	3.8
BT7145R	Ziller	9-26	—	—	102	102	101	1.4	S	4.1
141RR/SCN	Kruger	9-26	—	104	101	103	100	1.5	Rps1k	4.3

**Performance and characteristics of Roundup Ready soybean varieties, central zone;
Becker, Rosemount and Morris, 2002-2004 (continued).**

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2002-2004	2003-2004	2004	Protein	Oil			
R5159RR	Renk Seed	9-26	100	96	100	96	100	1.5	Rps1c	4.1
155RR	Kruger	9-26	—	—	99	102	99	1.5	Rps1k	3.8
W2090RR	Wensman	9-26	—	—	94	101	99	0.9	S	4.6
SD1151RR	Sodak Genetics	9-26	—	—	93	105	97	1.5	Rps1k	3.5
SO11261RR	Sands	9-26	—	—	93	96	98	1.2	Rps1c	3.5
KB104RR	Kaltenberg	9-26	—	—	92	99	99	1.0	Rps1c	4.3
125RR	KSC/Challenger	9-26	—	—	75	99	102	1.5	S	4.0
ADV1541	Advantage	9-27	—	—	115	99	103	1.5	Rps1k	4.4
6144RR	Top Farm	9-27	—	103	111	100	103	1.4	S	3.7
1508RR	Anderson Seeds	9-27	106	104	107	103	99	1.5	S	4.3
E1635	Latham	9-27	—	—	103	101	98	1.2	Rps1k	3.9
2133RR	High Cycle	9-27	—	—	101	103	99	1.3	S	4.8
RRX1314	Mallard	9-27	—	—	101	92	104	1.3	Rps1c	3.8
T-1601	Thompson Seeds	9-27	—	—	101	98	99	1.6	S	3.9
1524	Helena	9-27	—	—	100	100	104	1.4	S	4.5
1703RR	Garst/Agripro	9-27	—	103	100	97	102	1.5	Rps1c	4.2
DKB15-51	Dekalb	9-27	—	101	100	103	95	1.5	—	4.5
DSR-130/RR	Dairyland	9-27	103	101	99	101	96	1.3	S	4.6
EXP.33513R	Ziller	9-27	—	—	93	95	99	1.1	S	4.3
154RR	KSC/Challenger	9-27	—	—	90	97	100	1.5	Rps1c	4.7
DST13-000/RR	Dairyland	9-27	—	—	84	101	102	1.3	S	4.3
RRX1512	Mallard	9-28	—	—	121	99	102	1.5	Rps1k	3.8
FA7162	Farm Advantage	9-28	—	—	114	100	103	1.5	S	4.3
31C15	Dyna-Gro	9-28	—	107	113	100	100	1.5	S	4.6
W2163RR	Wensman	9-28	—	—	107	106	96	1.5	Rps1	4.5
W2144RR	Wensman	9-28	—	—	104	101	100	1.4	Rps1k	4.1
149+RR	KSC/Challenger	9-28	—	—	103	102	99	1.5	Rps1k	3.8
PB-1552RR	PBR	9-28	102	102	102	101	98	1.5	S	4.4
T-1577RR	Tech Brand	9-28	—	—	101	102	99	1.5	S	4.1
KB153RR	Kaltenberg	9-28	—	—	98	101	98	1.5	S	4.7
DST15-000/RR	Dairyland	9-28	—	—	96	103	99	1.5	S	4.0
BT7150R	Ziller	9-28	90	91	85	96	100	1.5	Rps1c	4.2
XR18C21	Garst/Agripro	9-29	—	—	107	101	102	1.7	Rps1c	4.3
S1436-4	Stine	9-29	—	—	104	101	101	1.4	Rps1k	3.8
M-155RR	Mustang	9-29	—	—	103	99	103	1.5	Rps1k	4.0
SO11540RR	Sands	9-29	—	103	102	101	98	1.5	S	4.1
S1586-4	Stine	9-29	103	101	99	103	97	1.4	S	4.3
PB-1634RR	PBR	9-29	—	—	94	102	101	1.5	Rps1k	3.8
2133	Helena	9-30	—	—	116	100	102	2.1	S	4.3
2154RR	High Cycle	9-30	—	—	114	102	101	1.5	Rps1k	4.1
2074	Helena	9-30	—	—	112	99	106	2.0	Rps1k	4.4
8160RR	Excel Brand	9-30	—	—	109	102	99	1.6	S	4.4
T-1717RR/SCN	Thompson Seeds	9-30	—	—	78	103	98	—	S	4.4
Mean		9-25	48.4 bu/a	41.9 bu/a	37.1 bu/a	34.9%	18.0%			
LSD 20%			8%	9%	10%					

Performance and characteristics of Roundup Ready soybean varieties, southern zone; Jackson, Lambertton and Waseca, 2002-2004.

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2002-2004	2003-2004	2004	Protein	Oil			
AG1401	Asgrow	9-19	—	—	88	94	103	1.4	—	4.2
151CNR	Anderson Seeds	9-20	—	—	97	100	101	1.5	Rps1k	4.0
1524	Helena	9-21	—	—	98	99	102	1.4	S	3.3
1508RR	Anderson Seeds	9-21	—	99	96	101	99	1.5	S	4.2
ADV1284NR	Advantage	9-22	—	—	113	92	101	1.3	S	3.6
RR2012	Mallard	9-22	—	—	107	98	102	2.0	S	4.1
C1664RR	LG Seeds	9-22	—	—	101	102	98	1.6	Rps1k	3.3
SD1151RR	Sodak Genetics	9-22	87	93	94	101	100	1.5	Rps1k	3.5
DKB15-51	Dekalb	9-22	95	92	90	97	101	1.5	—	3.9
AG1603	Asgrow	9-22	—	—	89	102	98	1.6	—	3.8
PB-1754RR	Sansgaard	9-23	—	—	108	103	98	1.7	S	4.2
KB161RR	Kaltenberg	9-23	—	—	107	94	101	1.6	Rps1c	3.8
FA7184N	Farm Advantage	9-23	—	—	102	107	96	1.8	Rps1	3.7
X319R	NK Brand	9-23	—	—	95	102	97	1.9	Rps1	4.4
X317R	NK Brand	9-23	—	—	93	96	100	1.7	Rps1c	4.4
PB-1634RR	PBR	9-23	—	—	92	100	98	1.5	Rps1k	3.9
2014RR	Thunder	9-23	—	—	83	98	102	1.4	S	4.0
6174RR	Top Farm	9-24	—	—	103	98	102	1.7	S	3.3
M-201RR	Mustang	9-24	101	105	101	97	102	2.0	Rps1k	3.8
K-200RR	Kruger	9-24	—	—	101	100	102	2.0	S	3.9
KB203RR	Kaltenberg	9-24	—	—	101	98	103	2.0	S	3.4
S1918-4	Stine	9-24	—	—	99	99	102	1.8	S	3.3
2175RR	High Cycle	9-24	—	—	97	98	103	1.7	S	3.8
192RR	KSC/Challenger	9-24	—	—	96	97	103	1.5	S	3.8
PB-1954RR	PBR	9-24	—	—	96	100	101	1.9	S	3.8
PB-2112RR	Prairie Brand	9-24	100	96	93	97	102	2.1	S	3.4
T-1818RR/SCN	Thompson Seeds	9-24	—	—	92	105	98	1.8	Rps1	4.2
211+RR	Kruger	9-25	—	96	106	98	103	2.0	S	3.8
223RR	Kruger	9-25	—	—	104	98	101	2.3	Rps1k	4.1
2222RR	High Cycle	9-25	—	—	103	99	102	2.2	S	3.8
PB-1943RR	Sansgaard	9-25	—	102	103	98	102	2.1	Rps1k	4.0
PB-2141RR	Prairie Brand	9-25	104	99	101	98	102	2.1	Rps1k	4.1
33B17	Dyna-Gro	9-25	—	—	100	101	98	1.7	Rps1k	4.1
PB-2243RR	Prairie Brand	9-25	—	97	100	98	102	2.2	S	4.0
SOI2143RR	Sands	9-25	101	102	100	98	102	2.1	Rps1k	4.1
NT-1909RR	Nutech Seed	9-25	—	—	98	98	103	1.9	S	4.2
NT-2002+RR	Nutech Seed	9-25	—	—	97	97	101	2.0	Rps1k	4.1
S2116-4	Stine	9-25	—	102	96	96	103	2.1	S	4.0
RS199RR	Renk Seed	9-25	96	91	95	98	104	1.9	Rps1k	4.4
GR2037	Midwest	9-25	99	95	94	98	103	2.0	S	4.2
191CNR	Anderson Seeds	9-26	—	104	111	98	105	1.9	Rps1k	4.2
W2163RR	Wensman	9-26	—	97	109	104	97	1.5	Rps1	4.3
2074	Helena	9-26	—	—	108	99	104	2.0	Rps1k	4.0
RR2214	Mallard	9-26	—	—	107	100	100	2.2	Rps1k	3.8
XR20P03	Garst/Agripro	9-26	—	—	104	99	102	2.0	S	3.8
C2121RR	LG Seeds	9-26	—	102	104	99	102	2.1	S	4.0
FA7192	Farm Advantage	9-26	—	100	103	98	102	1.9	S	3.6
T-7205RR	Thompson Seeds	9-26	108	106	102	97	102	2.0	Rps1k	4.1
2133	Helena	9-26	—	—	101	98	102	2.1	Rps1k	4.1
T-2202RR	Thompson Seeds	9-26	—	—	100	98	102	2.1	S	3.7

Performance and characteristics of Roundup Ready soybean varieties, southern zone; Jackson, Lambertton and Waseca, 2002-2004 (continued).

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2002-2004	2003-2004	2004	Protein	Oil			
DKB22-52	Dekalb	9-26	—	—	100	98	103	2.2	—	3.7
DSR-184/RR	Dairyland	9-26	—	97	99	97	104	1.8	Rps1k	4.4
PB-1914RR	Sansgaard	9-26	—	—	99	100	101	1.9	S	3.8
181RR/SCN	KSC/Challenger	9-26	—	—	97	105	99	1.9	Rps1	4.3
E1936R	Latham	9-26	—	—	97	99	102	1.9	S	3.8
2162RR	High Cycle	9-26	—	94	95	98	104	1.6	Rps1k	4.3
SOI2141ARR	Sands	9-26	—	99	94	99	101	2.1	S	4.0
M-203RR	Mustang	9-26	97	93	93	98	103	2.1	S	3.6
M-223RR	Mustang	9-26	—	—	93	103	97	2.2	S	3.5
2101RR	Anderson Seeds	9-27	—	—	106	97	101	2.1	Rps1k	4.0
497RR BRAND	Latham	9-27	107	108	106	97	102	2.2	Rps1k	3.7
RS204NRR	Renk Seed	9-27	—	—	105	98	104	2.0	Rps1k	3.9
RS234RR	Renk Seed	9-27	—	—	105	98	102	2.3	S	3.8
W2211RR	Wensman	9-27	—	102	103	98	102	2.1	S	4.0
SOI2169RR	Sands	9-27	—	—	103	99	101	2.1	Rps1	4.3
NF-1919+RR/SCN	Nutech Seed	9-27	—	—	103	97	105	2.0	Rps1k	3.4
6221RR	Gold Country	9-27	—	101	102	98	101	2.1	S	3.6
RS223RR	Renk Seed	9-27	—	100	101	98	103	2.2	Rps1k	3.8
W2144RR	Wensman	9-27	—	—	99	100	100	1.4	Rps1k	3.4
1717RR	Viking	9-27	—	—	97	101	97	1.7	S	4.2
T-2323RR/SCN	Tech Brand	9-27	—	—	96	105	97	2.3	Rps1k	3.9
XR18C21	Garst/Agripro	9-27	—	—	95	101	99	1.6	Rps1c	4.1
AG2107	Asgrow	9-28	—	107	112	101	104	2.1	—	4.1
ADV2135R	Advantage	9-28	105	104	109	96	102	2.1	Rps1k	4.1
ADV1773R	Advantage	9-28	—	103	108	102	100	1.7	S	3.6
BT7215R	Ziller	9-28	—	—	108	98	101	2.1	Rps1k	3.7
E34104RR	Top Farm	9-28	—	—	107	99	102	2.2	S	4.1
T-7193RR/SCN	Thompson Seeds	9-28	—	—	106	98	105	2.0	Rps1k	3.9
BT7193R	Ziller	9-28	102	104	105	103	98	1.9	S	4.2
191RR	KSC/Challenger	9-28	—	99	103	99	101	—	S	4.2
92B38	Pioneer	9-28	100	99	101	101	100	2.3	S	4.2
S2103-4	Stine	9-28	102	101	100	97	102	2.2	Rps1k	4.0
AG1903	Asgrow	9-28	—	—	99	100	98	1.9	—	4.3
PB-2023RR	Sansgaard	9-28	—	94	98	101	98	2.0	Rps1k	3.9
PB-1981RR	PBR	9-28	101	96	98	104	97	2.1	Rps1k	3.9
E3M321RR	Top Farm	9-28	—	—	97	98	101	2.1	Rps1k	4.2
AG2203	Asgrow	9-28	—	—	97	105	96	2.2	—	4.6
X320R	NK Brand	9-28	—	—	94	101	98	2.0	Rps1	4.3
S2403-4	Stine	9-28	—	—	90	103	98	2.4	Rps1k	4.0
FA7212	Farm Advantage	9-29	—	100	107	98	100	2.1	Rps1k	4.1
92M32	Pioneer	9-29	—	—	106	100	100	2.3	Rps1k	4.1
KB223RR	Kaltenberg	9-29	—	—	105	98	101	2.2	Rps1k	3.9
195+RR/SCN	Kruger	9-29	—	106	105	98	105	1.8	Rps1k	4.0
EXP.23717R	Ziller	9-29	—	—	104	103	97	1.7	S	4.3
PB-1921RR	Prairie Brand	9-29	101	101	104	97	102	1.9	Rps1k	3.7
EXP.23921R	Ziller	9-29	—	—	102	105	97	2.1	S	3.9
ADV2353R	Advantage	9-29	—	—	101	102	100	2.3	S	4.3
T-1901RR	Tech Brand	9-29	—	—	101	100	100	2.1	S	4.7
E34904RR	Top Farm	9-29	—	—	101	99	102	1.9	S	3.8
PB-1934RR	PBR	9-29	—	—	96	103	97	1.9	S	4.3

Performance and characteristics of Roundup Ready soybean varieties, southern zone; Jackson, Lamberton and Waseca, 2002-2004 (continued).

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean			Percent of Mean		Maturity Rating	Phytophthora Gene	Chlorosis Score
			2002-2004	2003-2004	2004	Protein	Oil			
T-2121RR/SCN	Tech Brand	9-29	—	—	92	100	101	2.1	Rps1c	4.8
SO11940RR	Sands	9-30	100	101	107	103	98	1.9	Rps1k	3.7
DST20-000/RR	Dairyland	9-30	—	—	105	103	97	2.0	S	4.1
233+RR	KSC/Challenger	9-30	—	101	101	103	98	2.1	S	3.8
DSR-199/RR	Dairyland	9-30	98	101	100	104	97	1.9	Rps1k	4.0
8192RR	Excel Brand	10-1	—	—	100	103	95	1.9	S	3.9
3190RR	Dyna-Gro	10-1	—	—	99	98	101	1.9	Rps1k	4.0
RRX2411	Mallard	10-1	—	—	98	103	97	2.4	S	4.1
2194RR	High Cycle	10-1	—	—	95	104	95	1.9	S	3.7
M-255RR	Mustang	10-1	—	—	93	101	97	2.5	S	3.8
W2400RR	Wensman	10-1	—	—	93	105	93	2.4	Rps1k	4.8
2157RR	Viking	10-2	105	108	110	97	102	2.1	Rps1k	4.1
AG2403	Asgrow	10-2	—	104	109	100	102	2.4	—	4.1
FA7243	Farm Advantage	10-2	—	—	109	105	96	2.4	S	4.1
DSR-234/RR	Dairyland	10-2	—	—	105	101	100	2.3	S	4.7
L2336R BRAND	Latham	10-2	—	104	105	103	98	2.3	S	3.8
92M30	Pioneer	10-2	—	—	104	101	101	2.3	S	4.0
T-2402RR/SCN	Tech Brand	10-2	—	—	103	101	101	1.9	Rps1k	4.6
36N23	Dyna-Gro	10-3	—	—	108	103	97	2.3	S	4.3
3218RR	Dyna-Gro	10-3	—	—	101	103	98	2.1	S	4.3
8237RR	Excel Brand	10-4	—	104	107	101	99	2.3	S	4.2
T-2404RR	Nutech Seed	10-4	—	—	81	101	98	—	S	4.5
Mean		9-27	50 bu/a	45.2 bu/a	46.9 bu/a	35.6%	18.6%			
LSD 20%			5%	7%	8%					

Performance and characteristics of soybean varieties, central zone; soybean-cyst-nematode-infested (Danvers, Holloway and Danube) and non-infested (Becker, Morris and Rosemount) sites, 2004.

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean						Maturity Rating	Phytophthora Gene	Chlorosis Score	SCN Rating		
			Infested Sites			Non-Infested Sites							Percent of Mean	
			2004	2004	2004	2004	2004	2004					Protein	Oil
MNO902CN	Minn. AES	9-18	85			88			108	89	0.9	S	3.7	MR
Lambert	Minn. AES	9-19	91			98			104	97	0.7	Rps1	3.8	S
092RR/SCN	Kruger	9-23	71			93			101	102	0.9	S	4.4	S
151CNR	Anderson Seeds	9-24	127			111			99	103	1.5	Rps1k	4.4	R
DKB15-52	Dekalb	9-24	120			109			100	100	1.5	—	4.2	R
X413R	NK Brand	9-24	115			106			100	97	1.3	Rps1c	3.8	MR
1490N	Garst/Agripro	9-24	102			97			101	97	1.4	S	4.3	MR
141RR/SCN	Kruger	9-25	126			105			101	99	1.5	Rps1k	3.8	MR
SO11343NRR	Sands	9-25	116			96			99	101	1.3	S	3.8	MR
PB-1594NRR	Prairie Brand	9-25	114			104			100	101	1.5	Rps1k	4.2	MS
AG1501	Asgrow	9-25	110			107			100	102	1.5	—	4.3	R
PB-1392NRR	PBR	9-25	97			97			97	105	1.3	S	3.8	MR
MN1006CN	Minn. AES	9-25	92			105			103	96	1.0	Rps1	4.3	MR
91M50	Pioneer	9-25	84			88			102	97	1.5	S	4.2	R
1212RR/N	Garst/Agripro	9-26	96			102			100	100	1.2	S	4.0	MR
T-1737RR/SCN	Thompson Seeds	9-26	78			107			96	105	1.7	S	4.1	R
PB-1694NRR	Prairie Brand	9-27	100			105			100	97	1.7	Rps1c	4.1	R
PB-1794NRR	Prairie Brand	9-27	100			99			98	99	1.7	Rps1k	3.8	MR
171RR/SCN	Kruger	9-28	103			96			101	97	1.5	S	4.1	S
NF-1919+RR/SCN	Nutech	9-28	97			123			96	106	-	Rps1k	4.2	R
169RR/SCN	Kruger	9-28	77			90			97	102	1.5	S	4.3	MS
T-1717RR/SCN	Thompson Seeds	9-29	110			97			96	104	1.5	S	3.9	MR
1812RR/N	Garst/Agripro	9-29	93			91			102	97	1.7	Rps1k	4.2	R
Mean		9-25	29.4 bu/a			42.9 bu/a			38.1%	17.4%				
LSD 20%			10%			7%								

Performance and characteristics of soybean varieties, southern zone; at soybean-cyst-nematode-infested (Lamberton, Madelia and Waseca) and non-infested (Jackson, Lamberton and Waseca) sites, 2002-2004.

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean						Percent of Mean Protein	Percent of Mean Oil	Maturity Rating	Phytophthora Gene	Chlorosis Score	SCN Rating
			Infested Sites			Non-Infested Sites								
			02-04	03-04	2004	02-04	03-04	2004						
MN1006CN	Minn. AES	10-2	—	87	90	—	92	90	98	100	1.0	Rps1	3.7	R
Parker	Minn. AES	10-3	100	82	78	100	91	89	99	100	1.5	Rps1	3.8	S
NF-1616RR/SCN	Nutech	10-5	—	—	109	—	—	99	101	99	1.5	Rps1k	3.7	MR
91M90	Pioneer	10-5	—	97	102	—	95	97	99	100	1.9	Rps1k	3.5	R
GR1531	Midwest	10-5	—	—	101	—	—	99	103	98	1.5	Rps1k	4.1	MR
151CNR	Anderson Seeds	10-5	—	—	100	—	—	98	102	99	1.5	Rps1k	4.0	MS
2174RR/SCN	High Cycle	10-5	—	—	99	—	—	100	99	101	1.7	Rps1c	4.1	R
Freeborn	Minn. AES	10-5	—	92	81	—	86	83	102	99	1.6	Rps1	3.8	R
141RR/SCN	KSC/Challenger	10-6	—	—	107	—	—	100	102	97	1.5	Rps1k	4.2	MS
181RR/SCN	Kruger	10-6	—	—	99	—	—	100	105	95	1.9	Rps1	3.8	R
X418R	NK Brand	10-6	—	—	89	—	—	92	98	102	1.8	S	4.1	R
DKB20-52	DeKalb	10-7	—	93	110	—	97	105	97	104	2.0	—	3.9	R
34N19	Dyna-Gro	10-7	—	—	106	—	—	97	105	96	1.9	S	4.1	R
NF-3183CN	Nutech	10-7	—	—	100	—	—	102	104	99	—	S	3.8	R
PB-1694NRR	Prairie Brand	10-7	—	—	97	—	—	94	99	99	1.7	Rps1c	3.7	R
X417R	NK Brand	10-7	—	—	91	—	—	98	100	101	1.7	Rps1	4.0	MR
E1798R	Latham	10-7	—	—	84	—	—	91	98	99	1.7	S	4.6	R
AG2107	Asgrow	10-8	—	116	120	—	104	107	99	104	2.1	—	4.3	R
33X19	Dyna-Gro	10-8	—	110	114	—	108	115	98	103	1.9	Rps1k	4.0	R
IA2068	Iowa AES	10-8	—	—	114	—	—	105	96	99	2.1	S	4.4	R

Performance and characteristics of soybean varieties, southern zone; at soybean-cyst-nematode-infested (Lamberton, Madelia and Waseca) and non-infested (Jackson, Lamberton and Waseca) sites, 2002-2004. (Continued)

Variety	Brand or Originator	Maturity Date	Yield, Percent of Mean						Percent of Mean Protein	Oil	Maturity Rating	Phytophthora Gene	Chlorosis Score	SCN Rating
			Infested Sites			Non-Infested Sites								
			02-04	03-04	2004	02-04	03-04	2004						
NT-1919RR/SCN	Nutech	10-8	—	—	111	—	—	107	97	104	1.5	Rps1k	3.8	R
191CNR	Anderson Seeds	10-8	—	103	109	—	102	108	96	105	1.9	Rps1k	4.3	R
GR2031	Midwest	10-8	—	107	107	—	106	111	97	103	2.0	Rps1k	4.4	R
171RR/SCN	Kruger	10-8	—	—	103	—	—	96	100	98	1.5	S	4.0	S
SOI2151NRR	Sands	10-8	—	101	103	—	108	109	97	103	2.1	Rps1k	4.3	R
T-7193RR/SCN	Thompson Seeds	10-8	—	—	103	—	—	111	97	104	2.0	Rps1k	4.3	R
PB-1994NRR	Prairie Brand	10-8	—	—	102	—	—	95	104	96	1.9	Rps1	4.4	R
IA1008	Iowa AES	10-8	—	98	91	—	97	98	102	95	2.0	S	3.9	R
T-1818RR/SCN	Thompson Seeds	10-8	—	—	90	—	—	92	103	96	1.8	Rps1	3.8	R
T-1717RR/SCN	Thompson Seeds	10-8	—	—	87	—	—	82	99	97	1.5	S	4.3	S
M-194NRR	Mustang	10-9	—	115	117	—	109	111	97	103	1.9	Rps1k	3.9	R
195RR/SCN	Kruger	10-9	—	—	115	—	—	115	97	103	1.8	Rps1k	4.3	R
PB-1984NRR	Prairie Brand	10-9	—	—	110	—	—	107	98	103	1.9	S	4.1	R
2420NRR	Gold Country	10-9	—	—	107	—	—	110	96	104	2.0	Rps1k	4.0	R
PB-2183NRR	Prairie Brand	10-9	—	106	107	—	105	111	97	104	2.1	Rps1k	4.5	R
1908CNRR	Viking	10-9	—	101	107	—	107	110	96	104	1.9	Rps1k	4.1	R
Turner	S.D. AES	10-9	—	—	103	—	—	102	99	99	2.3	S	4.0	R
W2195NRR	Wensman	10-9	—	—	95	—	—	106	97	104	1.9	Rps1k	4.2	R
169RR/SCN	KSC/Challenger	10-9	—	—	72	—	—	94	98	100	1.5	S	4.3	MS
92B12	Pioneer	10-10	—	—	120	—	—	106	99	102	2.1	Rps1k	4.2	R
AG2203	Asgrow	10-10	—	—	111	—	—	98	101	97	2.2	—	4.3	R
NT-3223CN	Nutech	10-10	—	—	109	—	—	107	98	100	—	S	4.3	R
E2380	Latham	10-11	—	—	109	—	—	102	99	98	2.3	S	3.9	R
SOI2341NRR	Sands	10-11	—	—	106	—	—	106	99	99	2.3	Rps1k	4.4	MS
92M30	Pioneer	10-11	—	104	105	—	101	97	100	99	2.3	S	4.4	R
T-2100RR/SCN	Thompson Seeds	10-11	—	—	100	—	—	102	101	99	2.1	S	4.5	R
33J24	Dyna-Gro	10-11	—	—	99	—	—	91	101	96	2.4	S	4.2	R
SOI2461NRR	Sands	10-11	—	—	92	—	—	95	99	97	2.4	Rps1k	4.5	R
T-2512RR/SCN	Tech Brand	10-11	—	—	90	—	—	95	100	98	2.1	S	4.1	R
2320SCN	KSC/Challenger	10-12	—	—	106	—	—	105	99	99	2.3	S	4.3	R
241RR/SCN	Kruger	10-12	—	—	100	—	—	99	100	97	2.4	Rps1k	3.8	R
XR23N51	Garst/Agripro	10-13	—	—	112	—	—	102	101	101	2.2	S	3.9	R
T-2323RR/SCN	Tech Brand	10-13	—	—	97	—	—	96	100	97	2.3	Rps1k	4.5	R
225RR/SCN	KSC/Challenger	10-13	—	—	87	—	—	99	101	99	2.3	Rps1c	4.5	R
T-2112RR/SCN	Tech Brand	10-13	—	—	77	—	—	95	100	98	2.1	S	4.7	MS
T-2402	Tech Brand	10-14	—	—	87	—	—	103	101	97	2.4	S	4.4	MS
T-2121RR/SCN	Tech Brand	10-14	—	—	80	—	—	91	100	97	2.1	Rps1c	4.7	MS
Mean		109	30.1bu/a	38.6 bu/a	41.0 bu/a		44.7 bu/a	44.5 bu/a	46.7 bu/a	35.7%	18.6%			
LSD 20%				7%	14%		5%	7%						

Performance of special-use soybean varieties, northern zone; Crookston, Moorhead and Shelly, 2002-2004.

Variety	Releasing Institution	Maturity Date	Yield, Percent of Mean			Percent of Mean	
			2002-2004	2003-2004	2004	Protein	Oil
Jim	N.D. AES	9-28	106	102	107	96	100
Danatto	N.D. AES	9-30	99	104	101	96	101
MNO202SP	Minn. AES	9-30	96	95	101	94	98
Trall	N.D. AES	9-30	—	111	96	100	103
UM3	Minn. AES	10-1	90	92	109	98	101
MNO201	Minn. AES	10-2	114	115	149	104	99
EX0205	Richland Organics	10-3	—	—	105	101	104
Nornatto	N.D. AES	10-3	—	103	85	100	100
90B43	Pioneer	10-4	—	—	99	96	106
Nannonatto	N.D. AES	10-4	—	95	98	95	100
MNO203SP	Minn. AES	10-4	89	90	84	104	92
MNO205SP	Minn. AES	10-5	101	102	105	101	102
Norpro	N.D. AES	10-6	107	106	113	104	99
MNO303SP	Minn. AES	10-6	98	95	87	99	96
MK0649	Richland Organics	10-6	—	99	84	101	99
EWP PA-07	Earthwise	10-6	—	—	81	106	100
MK0953	Richland Organics	10-6	—	89	61	105	97
Mean		10-3	27.0 bu/a	24.2 bu/a	16.0 bu/a	37%	16%
LSD 20%			8%	9%	15%		

Performance of special-use soybean varieties, central zone; Becker, Morris and Rosemount, 2002-2004.

Variety	Releasing Institution	Maturity Date	Yield, Percent of Mean			Percent of Mean	
			2002-2004	2003-2004	2004	Protein	Oil
MNO201	Minn. AES	9-15	—	94	93	99	102
EWP PA-07	Earthwise	9-15	—	—	80	101	101
Lambert	Minn. AES	9-17	125	110	108	93	109
MNO302	Minn. AES	9-17	107	108	108	90	112
Proto	Minn. AES	9-17	93	87	84	103	94
Evans	Minn. AES	9-18	—	108	100	93	109
MNO601SP	Minn. AES	9-18	89	90	94	109	91
MN1004SP	Minn. AES	9-18	90	88	86	97	99
Danatto	N.D. AES	9-18	66	64	68	91	107
MN1003SP	Minn. AES	9-20	115	116	116	100	104
Minnatto	Minn. AES	9-20	85	80	83	101	96
MNO803SP	Minn. AES	9-20	84	79	77	106	92
Surge	Minn. & S.D. AES	9-21	113	116	113	98	105
MN1103SP	Minn. AES	9-21	112	112	106	98	106
Toyopro	Minn. AES	9-21	101	98	98	109	91
91M10	Pioneer	9-22	—	123	127	96	107
MNO903SP	Minn. AES	9-22	110	113	115	104	97
MN1201SP	Minn. AES	9-22	103	108	108	98	104
MN1302	Minn. AES	9-22	—	113	108	91	109
Minnpro	Northland Organics	9-22	—	95	96	107	92
Alrapro	Northland Organics	9-22	—	89	90	116	78
MN1102SP	Minn. AES	9-23	114	116	116	98	106
MN1306SP	Minn. AES	9-23	87	86	93	96	98
MN1007SP	Minn. AES	9-23	86	78	83	109	82
Kato	Minn. AES	9-24	103	102	104	102	102
MN1101SP	Minn. AES	9-26	110	114	111	102	101
Parker	Minn. AES	9-26	107	106	103	95	107
MN1503SP	Minn. AES	9-27	—	—	120	100	107
MN1305SP	Minn. AES	9-27	106	107	111	98	104
Mean		9-21	39.5 bu/a	36.6 bu/a	37.2 bu/a	38.2%	16.5%
LSD 20%			5%	8%	10%		

Performance of special-use soybean varieties, southern zone; Jackson, Lamberton and Waseca, 2002-2004.

Variety	Releasing Institution	Maturity Date	Yield, Percent of Mean			Percent of Mean	
			2002-2004	2003-2004	2004	Protein	Oil
MN1004SP	Minn. AES	9-16	82	89	89	99	97
MN1001SP	Minn. AES	9-16	72	75	79	98	95
Surge	Minn. & S.D. AES	9-18	—	—	108	96	107
MN1302	Minn. AES	9-20	115	116	109	94	105
MN1408SP	Minn. AES	9-20	75	75	79	104	88
MN1604SP	Minn. AES	9-20	82	81	78	98	92
MN1406SP	Minn. AES	9-21	100	100	97	99	101
MN1404SP	Minn. AES	9-21	86	88	87	99	102
MN1306SP	Minn. AES	9-21	85	85	77	97	99
MN1103SP	Minn. AES	9-22	103	102	106	99	102
MN1101SP	Minn. AES	9-23	97	101	99	99	98
O.X1452	Viking	9-23	—	—	98	103	97
IA1011	Iowa AES	9-23	—	—	91	94	106
Parker	Minn. AES	9-24	89	122	115	97	103
MN1503SP	Minn. AES	9-24	107	110	104	100	103
MN1502SP	Minn. AES	9-24	97	97	93	99	102
21G01	Galena	9-25	—	—	115	102	101
92M10	Pioneer	9-25	—	110	101	95	104
MN1305SP	Minn. AES	9-25	93	92	88	98	103
MN1607SP	Minn. AES	9-26	116	119	115	102	102
O.1832	Viking	9-26	—	—	114	91	108
MN1407SP	Minn. AES	9-26	108	106	100	99	99
O.2022	Viking	9-26	—	—	95	92	108
MN1605SP	Minn. AES	9-26	85	85	78	98	90
MN1606SP	Minn. AES	9-27	113	114	114	101	102
MN1403SP	Minn. AES	9-27	111	113	110	95	103
IA2041	Iowa AES	9-27	106	99	102	106	96
HP204	Iowa AES	9-27	97	90	97	103	97
IA1007	Iowa AES	9-27	93	94	95	100	98
MN1603SP	Minn. AES	9-27	92	91	83	100	102
MN1501SP	Minn. AES	9-27	80	78	73	102	87
O.2199	Viking	9-28	—	—	115	97	102
IA2012	Iowa AES	9-28	101	103	101	102	97
Royalpro	Northland Organics	9-28	—	100	98	103	98
IA1010	Iowa AES	9-29	—	—	114	98	97
IA2053	Iowa AES	9-29	—	—	113	104	97
IA1008	Iowa AES	9-29	113	111	110	98	99
IA2042	Iowa AES	9-29	100	99	102	102	95
IA2016	Iowa AES	9-29	97	89	94	103	97
Soyapro	Northland Organics	9-30	—	103	103	104	98
2400	Star	9-30	—	—	102	97	102
IA2017	Iowa AES	9-30	104	102	99	100	99
IA2025	Iowa AES	9-30	95	94	93	104	99
IA2065	Iowa AES	10-1	—	—	128	94	111
IA2050	Iowa AES	10-1	129	128	118	96	104
Surepro	Northland Organics	10-1	—	—	114	105	98
IA2067	Iowa AES	10-1	—	—	102	104	97
IA1013	Iowa AES	10-1	—	—	101	105	100
MN2001SP	Minn. AES	10-2	110	111	109	105	97
IA1014	Iowa AES	10-2	—	—	106	104	98

Performance of special-use soybean varieties, southern zone; Jackson, Lamberton and Waseca, 2002-2004 (continued).

Variety	Releasing Institution	Maturity Date	Yield, Percent of Mean			Percent of Mean	
			2002-2004	2003-2004	2004	Protein	Oil
IA2020	Iowa AES	10-2	95	90	100	102	99
7321	Pattison Bros.	10-2	—	—	99	105	98
MN2101SP	Minn. AES	10-2	110	106	96	100	95
323 Brand	Latham	10-3	—	—	96	101	98
Vinton 81	Iowa AES	10-3	90	89	86	100	100
7322	Pattison Bros.	10-4	—	—	103	100	98
Mean		9-26	37.5 bu/a	35.8 bu/a	39.7 bu/a	38.6%	17.3%
LSD 20%			4%	5%	8%		

Characteristics of special-use soybean varieties, northern zone; Crookston, Moorhead and Shelly, 2004.

Variety	Releasing Institution	Maturity Rating	Special Characteristics	Hilum Color	Phytophthora Gene	Chlorosis Score	Seeds/Lb
Jim	N.D. AES	00.8	General Purpose	Yellow	S	3.8	3,175
Danatto	N.D. AES	0.4	Small Seed	Yellow	S	3.6	5,470
MNO202SP	Minn. AES	0.2	Small Seed	Yellow	Rps1	3.6	5,675
Trail	N.D. AES	0.0	General Purpose	Yellow	S	3.6	3,197
UM3	Minn. AES	00.9	Small Seed	Yellow	Rps1	3.8	6,580
MNO201	Minn. AES	0.2	General Purpose	Yellow	Rps1	3.1	3,691
EX0205	Richland Organics	0.2	Small Seed	Yellow	S	3.3	5,896
Noratto	N.D. AES	0.2	Small Seed	Yellow	S	3.6	5,044
90B43	Pioneer	0.4	Large Seed, Higher Protein	Yellow	Rps1c	3.4	3,519
Nannonatto	N.D. AES	0.3	Small Seed	Yellow	S	3.8	4,830
MNO203SP	Minn. AES	0.2	Small Seed	Yellow	Rps1	3.3	6,219
MNO205SP	Minn. AES	0.2	Small Seed	Yellow	Rps1	3.6	6,486
Norpro	N.D. AES	0.4	Higher Protein	Yellow	S	3.9	3,110
MNO303SP	Minn. AES	0.3	Small Seed	Yellow	Rps1	3.6	6,135
MK0649	Richland Organics	0.3	Small Seed	Yellow	S	3.7	3,027
EWP PA-07	Earthwise	0.7	Large Seed, Higher Protein	Yellow	S	3.8	2,142
MK0953	Richland Organics	0.3	Large Seed, Higher Protein	Yellow	S	3.6	3,661

Characteristics of special-use soybean varieties, central zone; Becker, Morris and Rosemount, 2004.

Variety	Releasing Institution	Maturity Rating	Special Characteristics	Hilum Color	Phytophthora Gene	Chlorosis Score	Seeds/Lb
MNO201	Minn. AES	0.2	General Purpose	Yellow	Rps1	3.3	3,575
EWP PA-07	Earthwise	0.7	Large Seed, Higher Protein	Yellow	S	3.6	2,064
Lambert	Minn. AES	0.7	General Purpose	Buff	Rps1	3.8	3,088
MNO302	Minn. AES	0.3	General Purpose	Buff	Rps1k	3.2	3,847
Proto	Minn. AES	0.5	Higher Protein	Buff	S	3.6	2,967
Evans	Minn. AES	0.5	Yellow Hilum	Yellow	Rps1	3.4	3,131
MNO601SP	Minn. AES	0.6	Higher Protein	Yellow	Rps1c	4.0	4,633
MN1004SP	Minn. AES	1.0	Low Sat., Low Linolenic Acid	Black	Rps1	3.5	3,290
Danatto	N.D. AES	0.4	Small Seed	Yellow	S	3.5	4,729
MN1003SP	Minn. AES	1.0	Higher Protein	Brown	S	3.4	3,027
Minnatto	Minn. AES	0.9	Small Seed	Yellow	Rps1	4.1	5,044
MNO803SP	Minn. AES	0.8	Smaller Seed Higher Protein	Yellow	Rps1	3.5	5,044
Surge	Minn. & S.D. AES	0.9	General Purpose	Imperfect Black	Rps1	3.8	2,820
MN1103SP	Minn. AES	1.1	Low Linolenic Acid	Black	Rps1	3.8	3,007
Toyopro	Minn. AES	0.8	Higher Protein	Yellow	S	4.3	3,752
91M10	Pioneer	1.1	Yellow Hilum	Yellow	S	4.3	2,702
MNO903SP	Minn. AES	0.9	Higher Protein	Yellow	Rps1	4.1	2,987
MN1201SP	Minn. AES	1.2	Large Seed, Higher Protein	Yellow	Rps1	3.8	2,389
MN1302	Minn. AES	1.3	General Purpose	Buff	Rps1k	3.8	2,892
Minnpro	Northland Organics	0.8	Higher Protein	Yellow	S	3.8	2,640

**Characteristics of special-use soybean varieties, central zone; Becker, Morris and Rosemount, 2004.
(continued).**

Altapro	Northland Organics	1.0	Higher Protein	Yellow	S	3.6	3,492
MN1102SP	Minn. AES	1.1	Large Seed, Higher Protein	Yellow	Rps1	3.5	2,671
MN1306SP	Minn. AES	1.3	Small Seed	Yellow	Rps1	3.4	7,567
MN11007SP	Minn. AES	1.0	Small Seed	Yellow	Rps1	3.8	6,053
Kato	Minn. AES	1.3	General Purpose	Black	Rps1	3.6	2,248
MN1101SP	Minn. AES	1.1	Large Seed, Higher Protein	Yellow	Rps1	4.2	2,481
Parker	Minn. AES	1.5	General Purpose	Buff	Rps1	4.4	3,088
MN1503SP	Minn. AES	1.5	Large Seed, Higher Protein	Yellow	Rps1	3.8	2,270
MN1305SP	Minn. AES	1.3	Large Seed, Higher Protein	Yellow	Rps1	3.8	2,305

Characteristics of special-use soybean varieties, southern zone; Jackson, Lamberton and Waseca, 2004.

Variety	Releasing Institution	Maturity Rating	Special Characteristics	Hilum Color	Phytophthora Gene	Chlorosis Score	Seeds/Lb
MN1004SP	Minn. AES	1.0	Large Seed, Higher Protein	Black	Rps1	3.9	2,719
MN1001SP	Minn. AES	1.0	Small Seed	Yellow	Rps1	3.4	5,821
Surge	Minn. & S.D. AES	0.9	Higher Protein	Imperfect Black	Rps1	3.4	2,270
MN1302	Minn. AES	1.3	General Purpose	Buff	Rps1k	3.6	2,402
MN1408SP	Minn. AES	1.4	Small Seed	Yellow	Rps1	3.5	5,675
MN1604SP	Minn. AES	1.3	Small Seed	Yellow	Rps1	3.2	6,776
MN1406SP	Minn. AES	1.4	Large Seed, Higher Protein	Yellow	Rps1	3.5	2,102
MN1404SP	Minn. AES	1.4	Large Seed, Higher Protein	Yellow	Rps1	4.0	1,868
MN1306SP	Minn. AES	1.3	Small Seed	Yellow	Rps1	3.8	6,486
MN1103SP	Minn. AES	1.1	Low Linolenic Acid	Black	Rps1	4.0	2,508
MN1101SP	Minn. AES	1.1	Large Seed	Yellow	Rps1	3.8	2,018
O.X1452	Viking	1.4	Large Seed, Higher Protein	Yellow	S	3.8	2,036
IA1011	Iowa AES	1.8	Large Seed	Yellow	S	4.3	2,802
Parker	Minn. AES	1.5	General Purpose	Buff	Rps1	4.1	2,454
MN1503SP	Minn. AES	1.5	Large Seed, Higher Protein	Yellow	Rps1	3.6	2,152
MN1502SP	Minn. AES	1.2	Large Seed, Higher Protein	Yellow	Rps1	3.8	2,064
21G01	Galena	2.1	Large Seed, Higher Protein	Yellow	S	3.9	2,036
92M10	Pioneer	2.1	Yellow Hilum	Yellow	S	3.6	2,752
MN1305SP	Minn. AES	1.3	Large Seed, Higher Protein	Yellow	Rps1	3.8	1,991
MN1607SP	Minn. AES	1.6	Large Seed, Higher Protein	Yellow	Rps1	3.4	2,009
0.1832	Viking	1.8	Feed	Buff	Rps1	4.3	2,686
MN1407SP	Minn. AES	1.4	Large Seed, Higher Protein	Brown	Rps1	3.8	1,707
0.2022	Viking	2.0	Large Seed	Yellow	Rps1c	4.0	2,402
MN1605SP	Minn. AES	2.0	Small Seed	Yellow	Rps1	3.3	6,580
MN1606SP	Minn. AES	1.6	Large Seed, Higher Protein	Yellow	Rps1	3.4	2,121
MN1403SP	Minn. AES	1.4	Large Seed	Yellow	Rps1	3.7	2,073
IA2041	Iowa AES	2.1	Large Seed, Higher Protein	Yellow	S	4.2	2,215
HP204	Iowa AES	2.0	Large Seed, Higher Protein	Yellow	S	4.8	1,948
IA1007	Iowa AES	1.8	Large Seed, Higher Protein	Yellow	S	4.0	1,726
MN1603SP	Minn. AES	1.6	Large Seed, Higher Protein	Yellow	S	3.9	1,616
MN1501SP	Minn. AES	1.8	Small Seed	Yellow	S	4.5	5,974
0.2199	Viking	2.1	Higher Protein	Brown	S	3.9	2,495
IA2012	Iowa AES	2.2	Large Seed	Yellow	S	3.5	1,726
Royalpro	Northland Organics	1.6	Large Seed, Higher Protein	Yellow	S	3.6	1,831
IA1010	Iowa AES	1.9	Large Seed	Yellow	S	4.0	1,549
IA2053	Iowa AES	2.5	Large Seed, Higher Protein	Yellow	S	4.3	1,940
IA1008	Iowa AES	2.0	Yellow Hilum	Yellow	S	4.0	2,162
IA2042	Iowa AES	2.1	Large Seed, Higher Protein	Yellow	S	4.7	1,932
IA2016	Iowa AES	2.2	Large Seed, Higher Protein	Yellow	S	4.3	1,991
Soyapro	Northland Organics	1.6	Large Seed, Higher Protein	Yellow	S	3.9	1,802

Characteristics of special-use soybean varieties, southern zone; Jackson, Lamberton and Waseca, 2004 (continued).

Variety	Releasing Institution	Maturity Rating	Special Characteristics	Hilum Color	Phytophthora Gene	Chlorosis Score	Seeds/Lb
2400	Star	2.4	Yellow Hilum	Yellow	Rps1	4.0	2,000
IA2017	Iowa AES	2.2	Large Seed, Higher Protein	Yellow	S	4.0	2,054
IA2025	Iowa AES	2.2	Lipoxygenase Free	Yellow	S	4.0	2,009
IA2065	Iowa AES	2.3	Low Linolenic Acid	Black	S	4.2	2,655
IA2050	Iowa AES	1.7	General Purpose	Black	S	4.6	2,481
Surepro	Northland Organics	2.0	Large Seed, Higher Protein	Yellow	S	3.7	1,838
IA2067	Iowa AES	2.4	Large Seed, Higher Protein	Yellow	S	4.1	1,853
IA1013	Iowa AES	2.1	Large Seed, Higher Protein	Yellow	S	4.2	1,700
MN2001SP	Minn. AES	2.0	Large Seed, Higher Protein	Yellow	Rps1	3.5	2,092
IA1014	Iowa AES	2.1	Large Seed, Higher Protein	Yellow	S	4.1	1,823
IA2020	Iowa AES	2.3	Large Seed, Higher Protein	Yellow	S	4.1	1,780
7321	Pattison Bros.	2.0	Yellow Hilum	Yellow	S	3.7	1,787
MN2101SP	Minn. AES	2.1	Large Seed, Higher Protein	Brown	Rps1	3.8	1,831
323 Brand	Latham	2.3	Large Seed	Yellow	S	4.1	1,900
Vinton 81	Iowa AES	2.0	Large Seed, Higher Protein	Yellow	Rps1c	4.2	1,868
7322	Pattison Bros.	2.0	Yellow Hilum	Yellow	S	4.2	1,663

Performance and characteristics of soybean varieties, southeastern Minn., 2000-2004.

Variety	Maturity Rating	Yield, Percent of Mean			Percent of Mean		Phytophthora Gene	Chlorosis Score
		2000-2004	2002-2004	2004	Protein	Oil		
MN1005	1.0	—	—	114	95	103	Rps1k	4.0
MN1006CN	1.0	—	—	89	97	101	Rps1	4.1
Kato	1.3	—	—	109	108	96	Rps1	3.8
MN1302	1.3	—	102	98	95	100	Rps1k	3.9
Parker	1.5	95	98	101	100	99	Rps1	4.1
91B53	1.5	—	94	76	102	100	S	4.0
IA1006	1.6	103	107	128	99	99	S	4.1
Freeborn	1.6	91	89	96	104	101	Rps1	3.8
MN1801	1.8	95	94	79	102	100	Rps1c	4.3
IA1008	2.0	89	105	103	101	97	S	4.1
Sturdy	2.0	120	104	83	101	99	Rps1	4.1
IA2050	2.1	105	108	114	98	103	S	4.4
IA2065	2.1	—	—	110	96	110	S	4.2
IA2008R	2.1	—	—	96	101	95	Rps1k	4.1
IA2068	2.1	—	—	92	96	101	S	4.2
Mean		42.1 bu/a	40.8 bu/a	36.9 bu/a	36.9%	17.9%		
LSD 20%		3%	5%	7%				

Characteristics of publicly developed soybean varieties entered in 2004 tests.

Variety	Releasing Institution	Maturity Rating	Phytophthora Gene	BSR Reaction	SCN Reaction	Chlorosis Score
MN0071	Minn. AES	00.7	Rps1	S	S	3.6
Glacier	Minn. AES	00.8	Rps6	S	S	4.2
Jim	N.D. AES	00.8	S	S	S	3.6
Traill	N.D. AES	0.0	Rs1	S	S	3.1
Barnes	N.D. AES	0.2	Rps6	S	S	4.1
MN0201	Minn. AES	0.2	Rps1	R	S	3.3
Walsh	N.D. AES	0.2	Rps6	S	S	3.5
MN0302	Minn. AES	0.3	Rps1k	S	S	3.7
MN0304	Minn. AES	0.3	Rps1k+Rps6	R	S	3.5
Lambert	Minn. AES	0.7	Rps1	S	S	3.8
MN0902CN	Minn. AES	0.9	Rps1	R	R	3.7
Surge	Minn. & S.D. AES	0.9	Rps1	S	S	4.0
MN1005	Minn. AES	1.0	Rps1k	S	S	4.3
MN1006CN	Minn. AES	1.0	Rps1	S	R	3.7
Kato	Minn. AES	1.3	Rps1	S	S	3.9
MN1302	Minn. AES	1.3	Rps1k	R	S	4.0
Parker	Minn. AES	1.5	Rps1	S	S	3.8
Freeborn	Minn. AES	1.6	Rps1	R	R	3.8
IA1006	Iowa AES	1.6	S	R	S	4.1
MN1801	Minn. AES	1.8	Rps1c	S	S	4.3
IA1008	Iowa AES	2.0	S	S	R	3.9
Sturdy	Minn. AES	2.0	Rps1	S	S	4.1
IA2068	Iowa AES	2.1	S	S	R	4.4
IA2008R	Iowa AES	2.1	Rps1k	R	S	4.1
IA2050	Iowa AES	2.1	S	S	S	4.3
Turner	S.D. AES	2.3	S	S	R	4.0

