



NEW VARIETIES FOR 2004 DISTRIBUTED BY MINNESOTA CROP IMPROVEMENT ASSOCIATION

INTRODUCTION

Following is a brief description of newly released varieties that will be available through the Minnesota Crop Improvement Association (MCIA). MCIA increased and will distribute **Granger (SD3546) spring wheat, MN0071 and MN0304 soybeans**. Allocations will be made through the County Seed Distribution Committee and the Minnesota Approved Seed Conditioners & Marketing Association (MASCMA). MCIA is also accepting requests for **Stark hulless oat and LaMoure soybean** released by NDSU, as well as **Drumlin oat**, a recent release by Wisconsin. Requests for Stark, LaMoure and Drumlin can be made directly to MCIA by March 1, 2004. Please contact Roger Wippler at MCIA (1-800-510-6242) if you have any questions.

MN0071 SOYBEAN

MN0071 soybean is a maturity group 00.7 conventional soybean line, similar in maturity to McCall and 1-2 days earlier than Jim. It also has the Rps1 gene for phytophthora resistance. The yield of MN0071 has been equal to Jim and consistently better than McCall (Table 1). It has good lodging resistance and an average iron chlorosis rating. MN0071 has brown hilum and average protein and oil percent. Released by the Minnesota Agricultural Experiment Station. A Variety Development fee of \$.50/bushel will be assessed on Registered and Certified seed sold.

Minnesota Soybean Trials

TABLE 1: 2000-2003, 20 Environments							
Minnesota Data: Crookston, Moorhead, Shelly, Roseau, Grand Rapids, Kennedy							
Line	Yield Bu/acre	Maturity	Lodging (1-5)	Height (Inches)	Seed Size	Protein %	Oil %
MN0071	35.8	9/14	1.4	29	14.5	35.8	19.5
McCall	33.3	9/14	1.7	28	13.7	35.3	18.6
Jim	35.2	9/16	1.6	26	15.2	34.2	18.5
Traill	36.3	9/21	1.9	30	15.0	35.6	18.3

MN0304 SOYBEAN

MN0304 soybean is a maturity group 0.3 conventional soybean line. It is similar in maturity to MN0302 and 3 days later than Traill. MN0304 has an excellent disease resistance package including Rps1k and Rps6 genes for phytophthora making it resistant to all phytophthora races in its area of adaptation. It also has excellent tolerance to iron chlorosis and brown stem rot. The yield of MN0304 has been similar to MN0302 (Table 2). It is average in height and has good lodging tolerance. MN0304 has an imperfect black hila with average protein and oil content. Released by the Minnesota Agricultural Experiment Station. A Variety Development fee of \$.50/bushel will be assessed on Registered and Certified seed sold.

Minnesota Soybean Trials

TABLE 2: 2000-2003, 28 Environments									
Minnesota Data: Rosemount, Morris, Becker, Crookston, Moorhead, Shelly									
Line	Yield Bu/Acre	Maturity	Lodging (1-5)	Height (Inches)	Seed Size	Protein %	Oil %	Phyto	Chlorosis
MN0304	42.6	9/15	1.6	33	16.4	35.7	19.0	Rps1k Rps6	3.0
Traill	38.0	9/13	1.6	31	16.0	36.5	18.5	S	3.7
MN0302	42.1	9/15	1.3	33	14.9	35.3	19.1	Rps1k	2.7
Lambert	44.2	9/20	1.8	34	16.0	35.6	19.4	Rps1	4.0

GRANGER (SD3546) SPRING WHEAT

Granger (SD3546) spring wheat is an early maturity hard red spring wheat developed by the South Dakota State Agricultural Experiment Station. It was derived from the cross of SD8070/SD3165. The heading date of Granger is similar to Oklee and one day earlier than Oxen. It has out-yielded Oxen in South Dakota trials. Granger is similar in height to Briggs with medium straw strength. It has good leaf rust resistance and scab tolerance superior to Ingot in South Dakota tests. The line has good test weight and protein levels that are slightly better than Oxen. Tables 3 and 4 show agronomic and yield data for 1 year in Minnesota trials. **The seed size of Granger is larger than other varieties; seed size this year is 10,000 seeds/pound.** Granger will be protected under the Title V provision of the U.S. Plant Variety Protection Act (PVP94). A Variety Development fee of \$.30/bushel will be assessed on Registered and Certified seed sold.

Royalty Note: *Granger (SD3546) will be the first variety subject to the royalty policy adopted by SDSU in 2003. A royalty of \$0.30/bushel will be assessed on the sale of Registered and Certified seed of Granger.*

Minnesota Spring Wheat Trials

TABLE 3: Characteristics of Hard Red Spring Wheat Varieties.

Variety	Days to Heading	Height cm	Straw strength	Test Weight (Lb/Bu)		Protein (%) ¹	
				2003	2 yr.	2003	2 yr.
	2003	2003	2002-03				
Alsen	66	84	strong	62.7	61.3	15.3	15.6
Briggs	63	89	medium	62.7	61.0	14.7	14.9
Granger (SD3546)	64	94	medium	62.4		15.0	–
HJ98	67	81	medium	61.8	59.8	14.3	14.5
Oklee	64	81	medium	63.4	61.7	15.3	15.2
Oxen	65	81	m. strong	61.9	59.7	14.7	14.8
Parshall	66	98	strong	63.4	61.9	15.1	15.2
Reeder	66	87	strong	62.3	60.5	14.9	14.8
Walworth	65	88	medium	61.7	59.8	15.0	15.0
Mean**	66	86		62.5	60.7	14.8	14.8
LSD	1	3		0.6	0.6	0.5	0.4

¹. 12% moisture basis.

** Mean is based on all varieties tested not just those shown in the table

Minnesota Spring Wheat Trials

TABLE 4: Grain Yield (Percent of the mean) of Hard Red Spring Wheat Varieties in Minnesota

Variety	State			North ¹			South ²		
	2003	2 yr.	3 yr.	2003	2 yr.	3 yr.	2003	2 yr.	3 yr.
Alsen	92	92	93	94	98	98	90	89	90
Briggs	98	99	-	102	103	-	94	97	-
Granger (SD3546)	97	-	-	94	-	-	100	-	-
HJ98	110	107	104	112	109	102	109	105	105
Oklee	94	99	99	96	99	101	92	99	97
Oxen	105	105	105	97	97	98	111	111	110
Parshall	94	93	93	93	94	95	95	93	92
Reeder	103	102	103	99	99	102	106	105	105
Walworth	101	102	102	98	100	102	103	103	103
Mean (Bu/Acre)**	79.2	65.7	63.4	83.7	72.3	65.4	75.8	61.5	62.1
LSD	5.2	4.3	3.5	7.1	7.3	5.5	4.9	5.2	4.5
Environments	7	13	20	3	5	8	4	8	12

¹ 2 yr. data is from 2003 Crookston, Roseau, and Stephen and 2002 Crookston and Stephen.
3-yr. data adds 2001 Crookston, Roseau, and Stephen.

² Data from Lamberton, Morris, St. Paul, and Waseca.

** Mean is based on all varieties tested not just those shown in the table

Requests for seed of the following varieties should be made directly to MCIA by March 1, 2004. If requests exceed available supply, orders will be prorated or selected randomly by MCIA staff.

LAMOURE SOYBEANS

LaMoure is a conventional maturity group 0.7 soybean. LaMoure is similar in maturity to Lambert with slightly higher yield. It has good lodging resistance, and good tolerance to iron deficiency chlorosis. LaMoure has brown hila, and average protein and oil. Released by NDSU. If interested contact MCIA for more information about this variety.

An annual royalty (\$.50/bu) and a first year Seed Increase Fee (\$1.00/bu.) are being proposed for this variety. (Please see note below on NDSU releases.)

STARK (HULLESS) OAT

Stark is a hulless oat variety similar in maturity to Paul and later than Buff. In four years of evaluation in North Dakota Oat Variety Trials, Stark has shown a 10% yield advantage relative to Paul. Stark has similar straw strength, plant height, maturity, and stem and crown rust resistance as Paul, but lower grain oil concentration and grain protein. Compared to Buff, Stark is taller, later, and yields better. Stark has been observed to have approximately 1% of kernels retaining hulls in breeder seed lots. On a weight basis, this would be roughly 3-4 %. If interested contact MCIA for more information about this variety.

An annual royalty of (\$.20/bu) and a first year Seed Increase Fee (\$.50) are being proposed for this variety. (Please see note below on NDSU releases.)

Royalty and Fees Note: NDSU is planning to implement an annual royalty on all releases in 2004 including Stark oats and LaMoure soybeans. The royalty is in addition to the Seed Increase Program Fee that will be assessed on the first year's production. A license agreement with NDSU Research Foundation will be required for seed production. Details on the Royalty and Seed Increase Fee will be forwarded to members as soon as they are available.

DRUMLIN OATS

Drumlin is a medium late maturity oat with very high yield, fair lodging resistance and medium test weight with yellow seed. It is resistant to crown rust and smut. **Yield and agronomic information is available in the 2004 Varietal Trials.** Released by Wisconsin. A royalty license agreement is required. There is no Registered seed class for Drumlin oats. Drumlin will be protected under the Title V provision of the U.S. Plant Variety Protection Act (PVP94). A \$.25 Royalty will be assessed on seed certified.

QUESTIONS OR COMMENTS

Please contact Roger Wippler at MCIA, 1-800-510-6242 if you have any questions or would like additional information about the varieties being released.