

February 7, 1992

TO: Experiment Station Directors, Department Heads, Soybean Breeders, and NCS-1 Committee Representatives-
North Central Region

FROM: R.K. Crookston

SUBJECT: Release of Four Soybean Varieties

The Minnesota Agricultural Experiment Station will be releasing four new soybean varieties. The soybean line M84-456 will be named Agassiz', the soybean line M84-748 will be named •Lambert', the soybean line M84-916 will be named 'Parker' and the soybean line M85-610 will be named 'Alpha'. The date for release of publicity for these varieties will be February 14,1992.

Agassiz has excellent yield for its maturity. Its maturity is similar to Gay. Agassiz should fill the need for a soybean variety that has a maturity of day (later than McCall but earlier than Ozzie, ie. on the border between maturity group 00 and 0), since Clay is no longer being grown by seed producers. Agassiz has improved protein compared to McCall and Clay and carries the Rpsi gene for phytophthora resistance (McCall and Clay have no phytophthora resistance). The pedigree of Agassiz is Simpson x M71-148. M71-148 is a selection from the cross Clay x Evans. Based on its excellent performance and phytophthora resistance Agassiz is being released.

Lambert has outstanding yield for its maturity. It is two to three days later than Glenwood. The protein and oil levels of Lambert are very good. Lambert carries the Rpsi gene for phytophthora resistance. It has good lodging resistance, seed quality and adequate iron chlorosis resistance. The pedigree of Lambert is M75-274 x M76-151. M75-274 is a selection from Evans x L70T-543. The line L70T-543 is from Illinois and is a selection from L15 x Amsoy 71. L15 is an Rpsi isoline of Wayne with the pedigree Wayne (6) x dark 63. M76-151 is a selection from M70-271 x Hodgson 78. M70-271 is a selection from the cross Merit x M64-3. The line M64-3 has the pedigree Traverse x PI 196163. The variety Lambert is being named in honor of the late J.W. Lambert, a pioneer soybean breeder at the University of Minnesota.

Parker has outstanding yield for its maturity. It is one to two days later than Sibley and four to five days earlier than Sturdy. The pedigree of Parker is A79-136012 x Dawson. A79-136012 is a line from Iowa that was selected from the cross Pride B216 x Land O'Lakes 4102. Parker carries the Rpsi gene for phytophthora resistance. Other characteristics such as lodging resistance, seed quality, protein and oil content and iron chlorosis resistance are acceptable. Parker is being released because of its outstanding performance.

Alpha is a variety with resistance to Soybean Cyst Nematode - SCN (race 3 and possibly race 14, however it has not been screened for race 14 in Minnesota). Alpha is the earliest SCN resistant variety currently available in any program (public or private) in the U.S. and would provide SCN resistant material for producers in central Minnesota where SCN has recently been identified as well as an earlier variety for southern Minnesota. Alpha is similar in maturity to Sibley and is five to seven days earlier than Bell, the other public SCN variety adapted to Minnesota. On infested sites (the only situation where this line would be recommended). Alpha has yielded more than

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Sibley and similar to Bell. The pedigree of Alpha is Fayette x McCall. Alpha has very good levels of protein and is acceptable for other characteristics. Based on its SCN resistance and earliness compared to other SCN resistance lines Alpha is being released.

Seed of Agassiz was increased by Minnesota and North Dakota. Seed of Lambert was increased by Minnesota, North Dakota and South Dakota, seed of Parker was increased by Minnesota, South Dakota and Wisconsin and seed of Alpha was increased by Minnesota. Seed for testing purposes can be obtained by writing to Dr. HJ. Otto, Minnesota Crop Improvement Association, 1900 Hendon Avenue, St Paul, MN 55108.

Please distribute this memo to the concern individuals.

cc: C.E. Alien

H.J. Otto

J.H.Orf

THE MINNESOTA AGRICULTURAL EXPERIMENT STATION, ST. PAUL. MINNESOTA
 THE NORTH DAKOTA AGRICULTURAL EXPERIMENT STATION. FARGO.
 NORTH DAKOTA

NOTICE OF RELEASE OF AGASSIZ SOYBEAN

The Minnesota Agricultural Experiment Station and the cooperator listed above announce the release of a high yielding soybean variety named AGASSIZ.

AGASSIZ originated as an F5 plant selection from the cross Simpson x M71-48 made at the Minnesota Agricultural Experiment Station. M71-48 is a selection from Clay x Evans. The generations were advanced to the FS by a modified single seed descent procedure in Minnesota and Chile. From 1985-1991 AGASSIZ was tested in Minnesota as M84-455 for agronomic performance. M84-456 was evaluated in the Regional Group 00 Test from 1988 to 1991. Data from those tests is shown below:

Variety	Seed Yield Chlorosis bu/a	Seed Maturity date	Plant Lodging score-*	Plant Height in.	Seed Quality scores-	Seed Size g/100	Composition Protein %	Iron Oil %	score+
ASASSIZ	27.4	9/10	1.3	23	2.3	13.1	41.1	20.4	2.6
CLAY	26.9	9/11	1.4	22	2.0	14.9	40.6	20.7	2.6

score: 1 (very good) to 5 (very poor).
dry weight basis.

AGASSIZ is classified as Group 00 maturity about 1 day earlier than Clay. It has out yielded Clay by about 2%. AGASSIZ is slightly taller than Clay. Seeds of AGASSIZ are smaller than seeds of Clay.

AGASSIZ has purple flowers, gray pubescence, brown pods at maturity and seeds with dull luster yellow seed coats with buff hila. It carries the Rps 1 gene for resistance to phytophthora root rot [caused by Phytophthora megasperma (Drechs.) F. sp. glycinea Kuan and Erwin].

Foundation seed of AGASSIZ will be produced by the foundation seed organizations in releasing states with seed distribution to seed producers for planting in 1992. The Minnesota Agricultural Experiment Station will maintain breeder seed. Each agency will be responsible for its own publicity after February 14,1992.

Director, Minnesota Agricultural Experiment Station Date

Director, North Dakota Agricultural Experiment Station Date

Jan. 1992

AGASSIZ SOYBEANS

AGASSIZ was developed by the Minnesota Agricultural Experiment Station. It is a Fg selection from the cross Simpson x M71-148. Prior to release, Agassiz was tested as selection M84-456.

AGASSIZ is of late Group 00 to early Group 0 maturity, relative maturity 85. It has purple flowers, gray pubescence, brown pods at maturity, and dull seed coats with brown and imperfect black hila. AGASSIZ carries the Phytophthora resistance gene Rps1, which confers resistance to races 1, 2, 10, 11, 13-18, and 24.

Plant Variety Protection under title V, certification-only option, has been applied for.

Entry	Maturity (Date)	Yield (bu/a)	Lodging1 (Score)	Height (in)	Protein (%)	Oil (%)
1991 Uniform Test 00 - Ashland						
Agassiz	Frost	36	3.0	29	39.8	18.5
McCall	Frost	33	2.3	21	39.3	19.4
Maple Ridge	Frost	18	1.0	17	40.6	18.0
Clay	Frost	32	4.0	25	43.0	19.7
1991 Uniform Test 0 - Spooner						
Agassiz	Frost	30	—	30		
McCall	Frost	24	—	27		
Dassel	Frost	28	—	29		
1989-91 3 Year Mean - Uniform Test 00 - Ashland						
Agassiz	Frost	28	1.5	24	41.0	19.0
McCall	Frost	27	1.3	21	41.1	18.7
Maple Ridge	Frost	18	1.0	18	41.3	18.4
Clay	Frost	28	1.8	22	41.2	19.6
1988-90 22 Tests - Uniform Test 00						
Agassiz	12-Sep	26	1.2	22	41.4	20.4
McCall	04-Sep	26	1.3	21	40.1	20.0
Maple Ridge	27-Aug	23	1.2	19	41.0	19.0
Clay	13-Sep	25	1.3	21	40.6	20.7

1 Score 1 (all plants erect); to 5 (all plants flat).

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