

The United States Department of Agriculture  
Agricultural Research Service  
Washington, D.C. 20250  
and

The Purdue University Agricultural Research Programs, West Lafayette, Indiana  
47907

and

The Illinois Agricultural Experiment Station, Urbana, Illinois 61801

NOTICE OF RELEASE OF ATHOW SOYBEAN

The Agricultural Research Service, United States Department of Agriculture, and the cooperators listed above announce the release of a new soybean cultivar named ATHOW. This cultivar is being released because of its good yield potential, excellent lodging resistance, resistance to multiple races of *Phytophthora sojae*, and high peroxidase activity in the seedcoat. The name ATHOW was selected to honor Dr. Kirk L. Athow, Professor of Plant Pathology, who had a distinguished career as a soybean pathologist at Purdue University from 1949 to 1985.

ATHOW is an F4-derived line from the cross A86-301024 x Resnik, designated CX1332, and was developed in the USDA-Agricultural Research Service and Purdue University Agricultural Research Programs cooperative soybean breeding and genetics project. The A86-301024 x Resnik cross was made in the greenhouse in the spring, 1988, and the F1 generation grown in the field the same year. The FS through F4 generations were advanced by single seed descent in Puerto Rico during the winter 1988-1989 and at W. Lafayette, Indiana in the summer, 1989. The FS generation was grown in plant rows in 1990 and individual plant rows, including CX1332-12, were selected for evaluation in replicated performance tests in 1991 and 1992.

The breeding line CX1332-12 was designated C1875 and was evaluated in Preliminary Test IIIB in 1993 and Uniform Test III in 1994 and 1995 of The Uniform Soybean Tests Northern Region. Results of the evaluations in the Uniform Group III tests are given in Table 1.

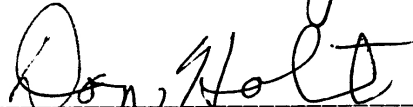
ATHOW is an indeterminate Group III variety that averages three days earlier than Thorne and one day earlier than Iroquois in maturity. ATHOW has purple flowers, tawny pubescence, and tan pods at maturity containing dull yellow seeds with black hila and high peroxidase activity in the seed coat. ATHOW has the Rps1-k gene that confers resistance to multiple races of *Phytophthora sojae*.

Seed of ATHOW is being increased by foundation seed organizations in releasing states in 1996 and will be made available to qualified certified seed producers in those states for 1997 planting. Genetic material of this release will be deposited in the National Plant Germplasm System where it will be available

for research purposes, including development and commercialization of new cultivars. When this germplasm contributes to a new cultivar, it is requested that appropriate recognition be given to its source.



Director, Purdue University Agricultural Research Programs



Director, Illinois Agricultural Experiment Station

10/2/96

Date  
Date

Administrator, Agricultural Research Service  
U.S. Department of Agriculture  
Date

Table 1. Performance of ATHOW compared with that of currently grown cultivars in The Uniform Soybean Tests Northern Region 1994-1995.

Cultivar	Seed yield kg ha <sup>-1</sup> bu a <sup>-1</sup>	Maturity date	Lodging score <sup>a</sup>	Plant height cm	Seed		Seed quality score <sup>b</sup>	Seed size g 100 <sup>-1</sup>	Protein dry basis 100 <sup>-1</sup> g kg <sup>-1</sup>	Oil 100 <sup>-1</sup> g kg <sup>-1</sup>
					Plant height inches	Seed quality score <sup>b</sup>				
ATHOW	3436	51.1	9-17	1.3	79	31	1.4	14.6	420	203
Flyer	3403	50.6	9-24	1.4	86	34	1.6	13.3	426	202
Macon	3605	53.6	9-23	1.5	84	33	1.6	16.3	410	202
Iroquois	3436	51.1	9-18	1.4	86	34	1.8	14.8	421	201
Thorne	3403	50.6	9-20	1.5	79	31	1.8	16.1	429	202

a Score is from 1 (all plants erect) to 5 (all plants prostrate).

b Score is from 1 (very good) to 5 (very poor).