REGISTRATION OF ONEIDA OATS*  
(Reg. No. 176)  
N. F. Jensen*

ONEIDA (C.I. 7458, N. Y. 618a-1-1-2-12) was developed by N. F. Jensen at the Cornell University Agricultural Experiment Station, Ithaca, New York, in cooperation with the U. S. Department of Agriculture and other experiment stations. It was selected from the cross Goldwin X C.I. 4192 made at Ithaca by H. H. Love and W. T. Craig in 1944. C.I. 4192 is from the hybrid of Victoria X Rainbow. The line from which Oneida was selected was obtained from a F_1 plant selection. This population was field tested for several years and the final selection which became Oneida was made in 1956. Oneida was distributed in New York in 1960 following an Arizona winter increase totaling approximately 1,000 bushels.

Oneida is a medium tall, medium late, moderately strong strawed oat. Its panicle is of average length and not as wide as Victoria. Oneida is a semiprostrate type and is not as winter hardy or as early as Forkedeer. The main feature of Oneida is its ability to stand up at dead ripe stage under adverse weather conditions and under high applications of fertilizers.

REGISTRATION OF RADAR 1 OATS**  
(Reg. No. 177)  
Darrell D. Morey*

RADAR 1 (C.I. 7339) oats originated from a cross of Victorgrain 48-93 X (Bond-Rainbow X Hajira-Joanette) X Landhafer made by S. J. Hadden at Coker's Pedigreed Seed Company, Hartsville, South Carolina, in 1952. The history of Victorgrain 48-93 has been published.* The (Bond-Rainbow X Hajira-Joanette) X Landhafer parent originated from the Minnesota breeding program. Among other qualities, it contributed resistance to stem rust and crown rust.

Radar 1 was introduced from the Coastal Plain Experiment Station, Tifton, Georgia, in 1958 as a cooperative endeavor from the Georgia Agricultural Experiment Stations, the Crops Research Division, ARS, U.S. Department of Agriculture. It is an early-maturing variety with strong straw. It is resistant to most races of stem rust, but susceptible to the virulent new race 264 and 256. Radar 1 has the ABC genes for resistance to stem rust. It is resistant to Helminthosporium victoriae. M. & M. Radar 1 is resistant to Fulghum and Victoria races of Southern oat smut, but somewhat susceptible to the barley yellow dwarf virus and soil-borne viruses found in the Piedmont area of Georgia. Radar 1 matures about a week earlier than Victorgrain 48-93 and is usually a few days earlier than Safeguard and Harvest. It is a relatively short-strawed variety with the excellent strength of the Victorgrain parent. Grain yield has been high in the Coastal Plain area. Forage yields have been good.

The grains of Radar 1 are rather small and test weights have been average. The grain is pure for nondiscoloration. The grains have few awns and are clean of rachilla hairs, or hairs on the back of the kernel.

Radar 1 has been used as a dual-purpose variety in South Georgia and grown to a limited extent in other Southern states.

REGISTRATION OF RADAR 2 OATS**  
(Reg. No. 178)  
Darrell D. Morey*

RADAR 2 (C.I. 7340) originated from a cross of Victorgrain 48-93 X (Bond-Rainbow X Hajira-Joanette) X Landhafer made by S. J. Hadden at Coker's Pedigreed Seed Company, Hartville, South Carolina, in 1952. The history of Victorgrain 48-93 has been published.* The (Bond-Rainbow X Hajira-Joanette) X Landhafer parent was received through the USDA from the Minnesota breeding program.

In 1953, S. J. Hadden sent F_2 seeds from 3 different oat crosses to the Coastal Plain Experiment Station, Tifton, Georgia, for testing under disease conditions. Lot 44-7-4 contributed one F_3 plant which, through subsequent selection and testing, produced both Radar 1 and Radar 2 varieties. Both crowns and stem rust were widespread in the Tifton nursery when visiting agronomists and pathologists came in April, 1954. The Coker hybrid material appeared so promising for rust resistance that H. C. Murphy, A. W. Wallace, and R. W. Earhart helped to select the F_3 plants which had combined resistance to crown and stem rust. Starting with the 1955 season, Harland Stevens helped to increase the Radar oats during three different seasons at Aberdeen, Idaho.

Two acres each of Radar 1 and Radar 2 were increased at Tifton, Georgia, in 1958. Radar 2 was found to be not pure for plant color and seed color. Head row purification in '59 gave seed which was pure for Foundation seed of Radar 2.

Radar 2 is slightly taller than Radar 1. They have the same disease resistance and strong straw. Radar 2 has given slightly higher yields of forage, whereas Radar 1 has given the higher grain yields. Radar 2 has larger grains than Radar 1. Since purification of the original Radar 2, the grains are now uniformly yellow and nonfluorescent. Radar 2 has been grown in South Georgia and to a limited extent in South Alabama.

The history and performance of Radar 1 and Radar 2 have been published.* Application for registration was made by D. D. Morey.

* Registered under a memorandum of understanding between the Crops Research Division, ARS, USDA, and the American Society of Agronomy.
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