UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURAL RESEARCH SERVICE Washington, D.C.

and

THE UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE Washington, D.C.

And

THE NORTH DAKOTA AGRICULTURAL EXPERIMENT STATION NORTH DAKOTA STATE UNIVERSITY Fargo, North Dakota

ANNOUNCE

THE RELEASE OF 'MANIFEST' INTERMEDIATE WHEATGRASS

'Manifest' intermediate wheatgrass [Thinopyrum intermedium (Host) Barkw. & D.R. Dewey subsp. intermedium] is being released jointly by the USDA-Agricultural Research Service, the USDA-Natural Resources Conservation Service, and the North Dakota Agricultural Experiment Station. Manifest was designated as Mandan I1871 in performance testing.

Manifest is a 12-clone synthetic selected at the USDA-ARS Northern Great Plains Research Laboratory, Mandan, ND from 10 accessions collected by the late Douglas R. Dewey (USDA-ARS, Logan, Utah) near Stavropol and Svetlograd, in the Caucasian region of Russia. The collection sites have a climate similar to the northern Great Plains of North America and a long history of grazing by sheep and goats. Parent clones of Manifest were selected based on performance of their respective polycross progenies in replicated tests used to measure forage yield, seed yield, spring recovery, and resistance to leaf-spot disease caused primarily by Cochliobolus sativus (Ito & Kuribayoshi) Drechs. Ex Dastur.

Manifest has exhibited consistent high forage yield over a wide geographic area and improved persistence under grazing compared with current cultivars. Disease problems have not been observed in regional tests, where overall levels of infection at individual sites were light to moderate. In vitro dry matter digestibility and crude protein levels of Manifest have averaged slightly lower than several other current intermediate wheatgrass cultivars, but nutritive quality was adequate for all classes of beef cattle.

Manifest is recommended in grass and grass-legume mixtures for hay and grazing in areas of the northern and central Great Plains and the Intermountain West where annual precipitation averages more than 350 mm (14 inches). Manifest also has potential as a perennial crop for cellulosic biomass in northern areas adapted to cool-season grass production.

Breeder seed of Manifest will be maintained by USDA-ARS, Northern Great Plains Research Laboratory, Mandan, ND 58554. One generation each of Foundation and Certified seed beyond Breeder seed is authorized. Foundation seed will be available from the USDA-NRCS Bismarck Plant Materials Center, 3308 University Drive, Bismarck, ND 58504.

The release date for Manifest will be on the date of final signature.

L.K. Flores, State Conservationist, North Dakota USDA-Natural Resources Conservation Service

Bismarck, North Dakota

Diane Gelburd, Director

Ecological Sciences Division

USDA-Natural Resources Conservation

Washington, D.C.

Kenneth F. Grafton, Director

North Dakota Agricultural Experiment Station

North Dakota State University

Fargo, North Dakota

Judith St. John, Deputy Administrator

Agricultural Research Service

U.S. Department of Agriculture