are tan and short, with few to several long basal hairs. Awns are moderately resistant to stem rust. Newdak has a good level of tolerance to barley yellow dwarf virus. Newdak is high yielding and has midseason maturity. In North Dakota, its average grain yield was 3.5 and 6.1% above ‘Dumont’ and ‘Otana’, respectively. Its test weight is medium, but milling yield is high. In New York, the 5-yr average grain yield of Newdak was 2 and 12% higher than ‘Ogle’ and ‘Porter’, respectively. Newdak is medium in height and has moderate lodging resistance. It possesses genes Pc-38 and Pc-39 for resistance to crown rust, and possesses Pg-13 for resistance to stem rust. Newdak has a good level of tolerance to barley yellow dwarf virus.

Culms and leaf margins of Newdak are glabrous and ligulate, and leaf sheaths may be present. It has equilateral panicles with ascending branches. Spikelet separation occurs by fracture and floret separation by heterofracture. Lemmas are glabrous and basal hairs are absent. Kernels of Newdak are white, fluorescent, medium to large, and midplump. Awns are absent.

Variety Protection will be sought under the Plant Variety Protection Act, Public Law 91-577, with the option that Newdak may be sold for seed by name only under the certified seed classes designated as breeder, foundation, registered, and certified. Breeder and foundation seed will be maintained by the Seedstock Project, Agricultural Experiment Station, North Dakota State University, Fargo, ND 58105-5051 and the New York Seed Improvement Cooperative, 249 Emerson Hall, Cornell University, Ithaca, NY 14853.

REGISTRATION OF 'NEWHY' RS HYBRID WHEATGRASS

‘NewHy’ RS Hybrid wheatgrass [quackgrass, Elytrigia repens (L.) Nevski, 2n = 6x = 42 x bluebunch wheatgrass, Pseudoroegneria spicata (Pursh.) A. Love, 2n = 4x = 28] (Reg. no. CV-18, PI 338763), was developed and released in December 1989 by the USDA-ARS in cooperation with the Utah Agricultural Experiment Station and the USDA-SCS. The new hybrid cultivar is recommended for range sites with moderate salinity problems that receive at least 330 mm of annual precipitation.

The cultivar was derived from two germplasms (RS-1 and RS-2) released in 1980 (1). These two populations were morphologically similar with the exception that RS-2 was slightly more rhizomatous than RS-1. Two additional cycles of selection were completed with combined RS-1 and RS-2 breeding populations to develop the parental germplasm of NewHy (F2 generation).

The initial RS hybrid population was established in 1962 (2). The F1 hybrid was a pentaploid (2n = 5x = 35), morphologically irregular, beset with chlorophyll deficiencies, and, in general, with poor vegetative vigor. Although the hybrid plants were only partially fertile, adequate seed set permitted selection for improved fertility without chromosome doubling. From the F1 to F2 generation, selection was based largely on fertility (seeds per spike) and only plants with