REGISTRATION OF 'RHIZO' KURA CLOVER

'Don' spring oat (Avena sativa L.) (Reg. No. 321; PI 49842) was developed at the Illinois Agricultural Experiment Station in cooperation with USDA-ARS and released in 1985. It was designated IL75-5860 during development and tested prior to release.

Don resulted from a cross of 'Coker 234'/ 'Orbit'/C181. It was first selected as a single panicle from an F1 bulk at Urbana in 1973 and grown in a single-panicle plot in 1974. The F2 through F4 generations were grown in the greenhouse using a modified single-seed descent method (1). Breeder seed of Don was produced by bulking 250 single-panicle plots, each having originated from a single panicle and having been selected in the field for uniformity.

Don has been evaluated in advanced yield tests in Illinois since 1979, in the Uniform Early Oat Nursery since 1981 and in the Uniform Midseason Oat Nursery from 1981 to 1983. Based on data from Illinois and the uniform nurseries, Don is a high-yielding early-maturing cultivar. It has higher yielding than most other cultivars of similar maturity and has been near the top when compared to midseason and late cultivars. It has short straw, but is moderately susceptible to lodging. Don has excellent resistance to current Illinois races of crown rust, Puccinia coronata efd. f. sp. avenae, and to smut, Ustilago avenae (Pers.) Rostr., but is susceptible to stem rust, Puccinia graminis Pers. f. sp. avenae, Eriks. and E. Henn. Don is only moderately tolerant to barley yellow dwarf virus.

Compared to the early and formerly widely grown cultivar Proctor, Lang, Don has similar height and maturity, equal or better yielding ability, better crown-rust and smut resistance, and has higher test weight and more attractive kernels. Lang has better lodging resistance.

Culms and leaf margins of Don are glabrous. Ligules are present. Don has equilateral panicles with ascending branches. Spikelet separation occurs by fracture and floret separation by heterofracture. The midlong lemmas are pubescent, and basal hairs are absent. The second floret rachilla is somewhat yellow in color in contrast to the dull white in color, medium to large, and midplump. The strongly spreading rhizomatous characteristic of RHIZO may help to maintain stands in pastures with grasses, because the stand thickens with age.

Area of adaption for RHIZO is similar to white clover. It has also been evaluated for stand and adaption in Colorado, Hawaii, Louisiana, Ohio and West Virginia. Two classes of seed beyond breeder seed are recognized: foundation and certified. Certified seed may be grown only from breeder or foundation seed. Breeder seed is maintained by the Soil Conservation Service, Plant Materials Center, Quicksand, KY, and foundation seed by the Kentucky Foundation Seed Project, Department of Agronomy, University of KY, Lexington, KY 40546.

Donald S. Henry and N.L. Taylor* (1)