on these tests, Kelly is as tall as Nodaway 70. It is early in maturity and heads about the same time as Preston and Nodaway 70. Straw strength is better than Nodaway 70. Yields are significantly higher than Nodaway 70 when crown rust is prevalent, otherwise they are about equal. Test weight is higher than that of either 'Preston' or Nodaway 70 in statewide tests. Groat percentage is good, being intermediate between Nodaway 70 and Preston. The milling yield of Kelly has been very good. Groat protein is moderately high with a 3 yr average of 19%, 1% above Nodaway 70 in South Dakota trials. Groat oil averaged 7.5 and 6.7% in 1982 and 1983 state-wide trials, respectively. This was 0.8 and 1.0% above Nodaway 70 in the same tests.

The panicles of Kelly are equilateral, medium-sized, and have spreading branches. Small (short, slender) awns sometimes are present on the primary kernels. The kernels of Kelly are white and floresce under ultraviolet light.

Under field conditions, Kelly has shown moderate resistance to crown rust [caused by Puccinia coronata Cda. f. sp. avenae (Eriks. and Henn.) Eriks]. Crown rust ratings at Brookings, SD, in 1982 and 1983 were 2.5 and 3 for Kelly, and 3 and 4.7 for Nodaway 70, respectively in 1982 and 1983, when using the modified Cobb scale. The genes for stem rust (caused by Puccinia graminis Pers. f. sp. avenae Eriks. and Henn.) are Pg 2 and 4. Kelly is resistant to smut [caused by Ustilago avenae (Pers.) Rostr] but susceptible to barley yellow dwarf virus.

Kelly is not protected under the U.S. Plant Variety Protection Act. Breeder seed is maintained by the South Dakota Foundation Seed Stocks Division of South Dakota State University, Brookings, SD 57007.

D. L. REEVES AND LON HALL (1)

References and Notes


REGISTRATION OF 'SIMPSON' OAT

'SIMPSON' (Reg. no. 312) is a winter type oat (Avena sativa L.) (P1494755) developed and released in 1983 by the South Carolina Agricultural Experiment Station. It originated from the cross of 'Ballard'/CI 4897. Bulked F3 seed of that cross was secured originally from Dr. V.C. Finkner at the University of Kentucky. The bulk was carried as SC751545, and Simpson was selected as a single panicle from SC751545, being grown for purification. Simpson was tested in preliminary yield trials in 1979 to 1981 in South Carolina. It was entered as accession SC774 in the Uniform Central Area Oat Nursery and the South Carolina Official Variety Test in 1982.

Simpson is a medium maturing cultivar similar to 'Brooks' and 'Madison'. It has a high level of winterhardiness in those areas where the Uniform Central Area Oat Nursery is grown. At those locations reporting winterkilling in 1984, Simpson and 'Coker 716' exhibited the highest survival (81 and 77%, respectively). Simpson is moderately resistant to crown rust races (incited by Puccinia coronata Cda. f. sp. avenae Eriks.) in the southeastern USA. It has excellent tolerance to soil-borne oat mosaic virus (caused by Marmort terrestr var. typicum McR.), which exceeds 'Sumter 3' and is comparable to Coker 716. Test weight of Simpson is similar to that of Coker 716. Average height of Simpson is 94 cm, with occasional taller plants. Straw strength is comparable to Sumter 3 and Coker 716. This cultivar exhibits excellent adaptation in the southeastern USA.

Simpson has a semi-prostrate juvenile growth habit and mediumsized yellow stems with some pubescence at the internodes. Leaf blades are midwidth with slight pubescence at the base of the leaf blade. Panicles are equilateral, mediumsized, midlong, midbroad, and ovate. Branch attitude is erect with ascending branches. The rachis is slightly to strongly flexuous. Spikelet separation is by semiabscission and floret separation is by disarticulation. Lemma is short, slender, red, glabrous, and has five to seven nerves. The grain is slender and the second floret rachilla segment is midlong and glabrous. It is awnless with an occasional nontwisted awn.

Simpson was named after the Simpson Experiment Station, where the initial breeding effort occurred.

Breeder seed will be maintained by the Department of Agronomy and Soils, Clemson University, Clemson, SC 29631. Foundation seed will be available from the South Carolina Foundation Seed Association, Clemson University, Clemson, SC 29634.

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REGISTRATION OF 'LOGAN' SOYBEAN

'LOGAN' soybean (Glycine max (L.) Merr.) (Reg. no. 189) was developed by the Nebraska Agricultural Research Division and released 13 Jan. 1985. Logan was released because it yielded 4 to 6% more than other public cultivars of comparable maturity in Nebraska tests. Logan originated as an F4 plant selection from the cross ('Beeson' × LI 5) × 'Amsoy' made at the University of Nebraska Mead Field Laboratory. LI 5 was derived from the cross 'Wayne4' × 'Clark 63'. The F2 population was harvested in bulk, single plants were harvested from the F2 population and advanced to the F4 generation in single-plant hill-plots at the Nebraska Agricultural Research Division, Lincoln Agronomy Farm where Logan was selected. Prior to its release, Logan was evaluated as U75633 in Nebraska intrastate yield trials from 1978 to 1983 and in the Uniform Soybean Tests, Northern States in 1981 (Preliminary IIB) and 1982 (Uniform III).

Logan is early Maturity Group III that matures 2 days later than 'Century', 2 days earlier than 'Pella', and is best adapted to approximately 40 to 42° N Lat. Logan has white flowers, tawny pubescence, tan pods at maturity, and shiny yellow seeds with brown hilum. It has an indeterminate stem growth habit and is about 8 cm taller and lodges slightly more than Pella. In Nebraska dryland and irrigated tests, Logan has averaged 4 to 6% higher yield than either Century or Pella. The seeds of Logan are the same size as seeds of Century, but have about 2% less oil content and about 2% more protein than those of Century. Visual seed quality is consistently better than Century or Pella. Logan has better seed retention than Century. Logan has an emergence score