REGISTRATION OF CROP CULTIVARS

Fidler has better rust and smut resistance than any existing cultivar. Gene Pc-39 confers a high level of resistance to all but two isolates (to which it has moderate resistance) of oat crown rust found in Canada during 1978 and 1979. It also has good stem rust resistance conferred by genes Pg-1 and Pg-13 and possibly Pg-2, Pg-5, and Pg-9. It is susceptible to the rarely occurring race NA 26. Fidler is resistant to all races and collections of loose smut and covered smut to which it has been tested. Fidler has been equal in yield to 'Hudson' in Manitoba trials, but in Saskatchewan and Alberta it has been lower yielding than either 'Cascade' or Hudson. It has short, fairly stiff straw with glabrous nodes, and its panicle is equilateral with short panicle branches. Kernels are creamy white in color and medium to small in size. The primary kernel often has a small awn and a few basal hairs sometimes are present. The rachilla is medium long with a slight pubescence. The test weight is moderately low but higher than that of Hudson.

Fidler is well adapted to Manitoba because of its good yield, strong straw, and superior crown and stem rust resistance.

Breeder seed will be maintained by the Seed Section, Agriculture Canada Research Station, Regina, Saskatchewan.

Fidler is named after Peter Fidler, a surveyor and fur trader with the Hudson's Bay Company from 1788 to 1821.

REGISTRATION OF TERRA OATS

(REG. No. 298)


'TERRA' naked oats (Avena nuda L.) was tested under the accession numbers RL 2966 and OT 195. It was licensed (license No. 1635) in 1976 by the Plant Products Division of Agriculture Canada. It was developed by the Oat Rust-Area Project Group which is co-ordinated from the Agriculture Canada Research Station, Winnipeg.

Terra was derived from the cross 'Random'//Vicar'/Random made in 1968. Segregates were advanced by single seed descent and an F4 line was bulked in 1969 to form the cultivar. In 38 station-years of co-operative oat trials from 1972 to 1974, Terra outyielded the naked oat cultivar Vicar by 15%. When compared on a groat basis, yields approach those of Random and 'Hudson'. It is a moderately short, stiff-strawed cultivar which responds well to good management practices.

Terra is tolerant to greyspeck (manganese deficiency) but susceptible to crown rust (incited by Puccinia coronata Cda. f. sp. avenae Eriks.) and stem rust (incited by Puccinia graminis Pers. f. sp. avenae Eriks. and E. Henn.), loose smut (incited by Ustilago avenae (Pers.) Rostr.), covered smut (incited by Ustilago kolleri Wille), and to barley yellow dwarf virus.

Terra is medium early in maturity, similar to Random. Its multiflorous spikelet is not as lax as that of other naked oats. The stem is medium in length with glabrous nodes; leaves are of medium width, glabrous, and grass green. The panicle of Terra is of medium size and equilateral. It has large kernels with an indented crease. The lemma and palea are creamy white with a texture similar to the outer glumes and the lemmas bear a few weak awns. The rachillas are glabrous, similar in texture to the panicle branches, and shorter than those of other naked oat cultivars. Terra is more resistant to shattering than Avena sativa L. or other A. nuda cultivars. Like other naked oat cultivars, its seed is easily damaged during threshing.

Terra is average in groat protein and oil contents.

Terra is widely adapted in western Canada; but because of its rust susceptibility, considerable grain yield loss can occur when sown late in Manitoba.

Breeder Seed is maintained by the Seed Section, Agriculture Canada Research Station, Regina, Saskatchewan.

REGISTRATION OF AMCOR SOYBEAN

(REG. No. 149)

R. L. Cooper, R. J. Martin, A. K. Walker, and A. F. Schmitthenner

'AMCOR' soybean [Glycine max (L.) Merr.] originated as an F1 plant selection out of a high-yielding advanced F3 line from a cross of 'Amsoy 71' × 'Corsoy' made at the Illinois Agric. Exp. Stn. in 1968. Before its release in 1979, Amcor was identified as L73D-195.

Amcor was in the Regional Preliminary Tests in 1975 and the Uniform Regional Test in 1976, 1977 and 1978. Amcor was jointly released by the Ohio Agricultural Research and Development Center, the Pennsylvania and South Dakota Agric. Exp. Stns. and AR-SEA-USDA on 1 Aug. 1979.

Amcor is a tall Group II indeterminate cultivar. In comparison with 'Beeson,' Amcor is 2 days later in maturity, 10 to 15 cm taller and has an average lodging score of 2.7 as compared to 2.0 for Beeson. Amcor's taller growth appears to contribute to higher seed yields where stress conditions, drought or low fertility, limit the growth of shorter varieties such as Beeson. It has purple flowers, gray pubescence, and shiny yellow seeds with yellow hila. Amcor has resistance to Races 1 and 2 of Phytophthora megasperma (Drech.) var. sojae A. A. Hildeb.

Foundation seed of Amcor was produced in 1979 and released to certified seed producers in 1980. The Ohio Agricultural Research and Development Center will maintain breeder seed.

REGISTRATION OF ELF SOYBEAN

(REG. No. 150)

R. L. Cooper

'ELF' soybean [Glycine max (L.) Merr.] originated as an F1 plant selection out of a high-yielding determinate (dt, dt) advanced F3 line from a cross of 'Williams' × 'Ransom' made at the Illinois Agric. Exp. Stn. in 1970. Before its release, ELF was designated as L74D-611.

ELF was tested extensively in both 75 and 17 cm rows in Illinois in 1975, 1976 and 1977. It was also tested in the Uniform Regional Tests (primarily in 75 ncm row widths) in 1976 and 1977. It was also tested in the Uniform Regional Tests in 1976 and 1977. ELF was jointly released by the Illinois Agric. Exp. Stn., the Ohio Agricultural Research and Development Center and AR-SEA-USDA on 15 July 1977.

ELF is a Group III cultivar similar in maturity to Williams. It has determinate growth type and is the first of Group III maturity to be released for production. It has average height of 55 cm as compared with Williams at 93 cm. The shorter growth contributes to better resistance to lodging. ELF has purple flowers, tawny pubescence, and tan

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2 Research agronomist, AR-SEA-USDA and adjunct professor, Dep. of Agronomy, agronomist, AR-SEA-USDA and research associate, Dep. of Agronomy: asst. professor, Dep. of Agronomy: and professor, Dep. of Plant Pathology, Ohio Agric. Res. and Dev. Center, Wooster, OH 44691 and Ohio State Univ.
4 Research agronomist, AR-SEA-USDA and professor, Dep. of Agronomy, Ohio Agric. Res. and Dev. Center, Wooster, OH 44691, and Ohio State Univ.