REGISTRATION OF CROP CULTIVARS

M65-295. It is classified in Maturity Group 0, maturing at about the same time as 'Swift'. It is adapted in the area between 44° and 46° N. Because of large seed size, Grande has been found useful in manufacture of certain food products.

Distinguishable characteristics of Grande are purple flowers, tawny pubescence, and light yellow seeds with dull luster and light tan hila. The plants are medium in height and have good resistance to lodging. Leaves are large and medium dark green. Seed is 85 to 40%; longer than those of Swift. Both oil and protein percentages are low, relative to standard commercial cultivars. Yielding ability is similar to that of Swift. Grande is susceptible to Phytophthora, Phytophthora megasperma (Drechs.), var sojae A. A. Hildeb., rot and shows medium to high amounts of chlorosis on high lime soils.

Seed was released to certified growers in Minnesota in 1976. The Minnesota Agric. Exp. Stn. will be responsible for maintenance of breeder seed. Other information is published in Variety Tests of Farm Crops, Misc. Rep. 24, Agric. Exp. Stn., St. Paul, MN 55108.

REGISTRATION OF NC 13 TOBACCO

D. F. Matzinger, E. A. Wensman, and T. J. Mann

'NC 13' (tested as NC TG-13) is a flue-cured cultivar of Nicotiana tabacum L. released cooperatively by the North Carolina Agric. Exp. Stn. and ARS, USDA. It was released for seed increasing in 1976. The 1976 generation and was available to growers in 1977. The source population for NC 13 was derived by a recurrent selection program initiated within the F2 generation of a 'Hicks Broadleaf' × 'Coker 125' cross. NC 13 was isolated in the fourth cycle of selection as a parent plant with superior half-sib and self-progeny performance. Remnant self-seed of this heterozygous plant constituted the source material for additional selfing and pure-line testing.

Performance data have been obtained from four locations per year in the North Carolina Official Variety Test in 1975*, 1976, and 1976. In 1974 the cultivar was evaluated in the Regional Small Plot Test at six locations in Georgia, South Carolina, North Carolina, and Virginia. Testing in 1975 was at five locations in the Regional Small Plot Test and 11 locations in the Regional Farm Test. On 12 Dec. 1975 the Regional Flue-cured Tobacco Evaluation Committee judged that the cultivar met minimum standards for release.

NC 13 grows vigorously in plant beds, rapidly in the field, and stand establishment is excellent. It flowers 4 days to 7 days later and is slightly taller than the 'NC 95' and 'NC 2506' checks. It produces two to three more leaves per plant than the checks and its leaves are extremely large, particularly near the bottom of the plant.

The cultivar has an extremely high yield potential, averaging 10 to 15% above the checks. The grade index of cured leaf quality was similar to the checks. The cured tobacco contains a large percentage of leaves that have this body and open texture. The protein content of the leaves is equal to the checks. Nicotinonitric, soluble sugars, total nitrogen, and ε-amino N compare favorably with the checks and the smoke quality was judged acceptable. NC 13 has a high level of resistance of the Florida 301 type to black shank (Phytophthora parasitica cv. nicotianae Breda de Haan, (Tucker)). Foundation seed are available from the North Carolina Foundation Seed Producers, Inc. Breeder seed will be maintained by the North Carolina Agric. Exp. Stn.

REGISTRATION OF PARKER 76 WHEAT

E. G. Heyne

'PARKER 76', CI 17695, is a hard red winter wheat (Triticum aestivum L. em. Thell.) selected from the cross 'Parker*5/Agent'. It was developed cooperatively and jointly released by the Kansas Agricultural Experiment Station and ARS, USDA. F2 seed of Parker*/Agent was received from the Colorado Agricultural Experiment Station in the fall of 1966. The F2 plants were tested for seedling reaction to leaf rust (Puccinia recondita R. Koehn. ex Desm. f. sp. tritici) races attacking genes LK3 and LR10. Several of the resistant F2 plants were backcrossed to Parker in 1966. The F3 and F4 generations of the cross Parker*/Agent were grown in the greenhouse in 1967 to 1968, and F2 plant progenies in the field in 1969-71. Parker 76 is an increase of a single head selected in the F2 generation in 1971 and was assigned the selection number K374124. It was tested in the 1975 and 1976 Kansas Intrasatate Nursery where it and Parker performed similarly.

Parker 76 retains the major leaf rust resistance of both parents (LR10 and LR24); the stem rust (P. graminis Pers. f. sp. tritici Eriks. and Henn.) resistance of Agent (SR24); and the Hessian fly (Mayetiola destructor Say) resistance of Parker (Marquillo source). It is susceptible to bunt (Tilletia caries (DC.) F. spl.) loose smut (Ustilago tritici (Pers.) Rost.), bolbrode wheat mosaic virus, and wheat streak mosaic virus.

Quality is similar to Parker's with a medium mixing time, good mixing tolerance, and a below average loaf volume potential.

Parker 76 has a winter growth habit; mid-season maturity, a short to mid-tall, white, strong stem; the spike is awned, fusiform, mid-dense, and inclined; the glumes are glabrous, white, mid-long, and mid-wide; the shoulders are mid-wide and generally square; the beaks vary from 3 to 7 mm long; awns are white, 4 to 8 cm long; and kernels are red, hard, and smaller than most hard red winter wheat kernels.

The important characteristics of Parker 76 are its mid-season maturity, strong straw, high test weight, and seedling or fall resistance to leaf rust and Hessian fly, which allows early seeding. Foundation seed will be maintained by the Kansas Agricultural Experiment Station, Manhattan, KS 66506.

REGISTRATION OF GENT WHEAT

D. G. Wells, J. J. Bonnemann, and H. S. Sandhu

'GENT', CI 17293, a hard red winter wheat (Triticum aestivum L. em. Thell.), is a composite of nine selections developed at the Hays (Kansas) Branch Experiment Station from the cross 'Agent'/4 'Scout'. The nine lines were the best ones agronomically

1 Registered by the Crop Sci. Soc. Am. Cooperative investiga-
2 tions of the Kansas Agric. Exp. Stn. and ARS, USDA. Contribu-
3 tion No. 1627-j, Agronomy Dep., Kansas Agric. Exp. Stn. Ac-
4 cepted 9 May 1977.

2 Agronomist, Dep. of Agronomy, Kansas Agric. Exp. Sm., Manhattan, KS 66506.

2 Registered by the Crop Sci. Soc. Am. Journal Article 1471
3 of the South Dakota Agric. Exp. Stn., South Dakota State Univ., Brookings, SD 57006.

2 Professor and assistant professor of plant science, and gradu-
3 ate research assistant, respectively. South Dakota State Univ., Brookings, SD 57006.

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