REGISTRATION OF GRUNDY OATS
(Reg. No. 249)

K. J. Frey and J. A. Browning

'Grundy' (Avena sativa L.), C.I. 8445, is a short, still-strawed oat cultivar adapted to the central and northern Corn Belt. It was named for Grundy County, Iowa, which is in a major oat producing area. Grundy is an early cultivar that produces medium-sized kernels, predominately light yellow. Hulls of 2.5% of the seeds fluoresce under ultraviolet light. This cultivar has short, upright, dark green leaves and semi-compact panicles. Grundy was developed by the Iowa Agricultural Experiment Station and the Plant Science Research Division, Agricultural Research Service, U.S. Department of Agriculture from the cross 'Clintland' × 'Garry-5.' This cross was made in 1954, and the F1 and F2 generations were grown at Aberdeen, Idaho and Ames, Iowa, respectively, from 1955 to 1958; one that seemed promising (C 237-93-2) was selected for further pedigree selection. F1 panicle rows were grown in 1959, and especially promising ones, including C 237-95-2, were advanced to four-row plots in 1960 and 1961. Since 1962, Grundy has been tested extensively in Iowa, and it was tested in the Uniform Early Oat Performance Nurseries in 1969 and 1970. In Iowa tests (3 to 8 locations for each of 4 years), Grundy has outyielded other early cultivars, such as 'Multiline E 68,' 'Jayce,' and 'Clintford,' by 3 to 8%. It produces grain medium to heavy in test-weight per bushel. Lodging resistance is equal to that of Clintford and 'Tippecanoe.' Grain quality is satisfactory for commercial milling.

Grundy has genes Pg-2 and Pg-4, conditioning resistance to Puccinia graminis stripped races 6, 7, 7A, and 8, and it is susceptible to the now prevalent races 6AF and 6AFH. This cultivar has field tolerance to many of the prevalent crown rust races, such as 7A, 294, 321, and 325. In Iowa tests in 1970 when there was heavy crown rust infection in central Iowa, Grundy grain yields were 10 to 15% lower than the local check cultivars.lodging resistance is equal to that of Clintford and 'Tippecanoe.' Grain quality is satisfactory for commercial milling.

Grundy was released in 1971. Breeder seed is available from the Iowa Agricultural Experiment Station.

REGISTRATION OF LANE OATS
(Reg. No. 250)

Wilson H. Foote and Warren E. Kronstad

'Lane', a grey winter oat (Avena sativa L.), C.I. 8435, was selected from a cross between 'Grey Winter'/ 'Letoria' made in 1952 by workers at the Oregon Agricultural Experiment Station. Individual plant selections were made in F1, rows on the basis of straw strength and kernel color. After extensive testing, head selections were made and increased for Breeders seed in 1967. The Oregon selection number was 59-289. Lane was released to growers in 1969.

Lane is a tall, mid to late winter oat with grey plump kernels. Culms are yellow and mid-sized. Panicles are unilaterial, erect, and spreading. Spikelets are two-flowered, separation is by fracture. The glumes are 18 to 20 mm long, 5 to 7 mm wide, boat shaped and curved at the apex. awns are numerous, twisted, and geniculate.

Lane is adapted to the winter oat growing area of western Oregon and is expected to replace the variety Grey Winter. It is in higher yield, has stronger straw, and is more winterhardy than Grey Winter.

Breeder seed is available from Agronomic Crop Science Department, Oregon State University, Corvallis, Oregon 97331.

REGISTRATION OF NEW MEXICO VALENCE A PEANUT
(Reg. No. 14)

D. C. H. Hsi and R. E. Finkler

'New Mexico Valence A' is a Valencia-type peanut (Arachis hypogaea) with bunch growth habit. It was developed from an individual plant selection of the 'New Mexico Valence' cultivar which is a descendant of the 'Tennessee Red' cultivar that was introduced into New Mexico some 50 years ago. The new cultivar, designated experimentally as A 230, was released by the New Mexico State University Agricultural Experiment Station in 1971 as N.M. Valence A.

New Mexico Valence A was first selected from approximately 1,600 individual peanut plants in 1967. The plants were selected from the local Valencia-type peanuts grown in New Mexico and were progeny of four-kernel pods. N.M. Valence A averaged 709 kg/ha, 10% more than the local check cultivars, in 3 years of progeny testing. This increase was significant at the 10% level of probability. N.M. Valence is the locally accepted and competitive commercial cultivar and has a 3 year test average of 3,698 kg/ha. N.M. Valence A also produced a higher proportion of three-kernel pods and significantly more four-kernel pods than the local check cultivars. N.M. Valence A is marketed almost exclusively for sale as roasted peanuts in the hull. Therefore, it is highly desirable to have pods which contain a high proportion of three and four kernels per pod. No significant difference between N.M. Valence A and check were found in their reaction to black hull disease (Thielaviopsis basicola). Both were susceptible.

New Mexico Valence A has the same plant and pod morphological features and the red tested color as the New Mexico Valence cultivar.

Breeder seed of N.M. Valence A will be maintained by the Plains Branch Station, NMSU, Agricultural Experiment Station, Clovis, New Mexico 88101.

REGISTRATION OF CS-S4 RICE
(Reg. No. 35)

C. Roy Adair, J. R. Thyrell, J. J. Mastenbroek, and H. L. Carnahan

'CS-S4' rice (Oryza sativa L.), C.I. 5885 was developed jointly by the Plant Science Research Division, Agricultural Research Service, U.S. Department of Agriculture, the California Cooperative Rice Research Foundation, Inc. and the California Agricultural Experiment Station. It was a pure line selection from the cross 48TA1-12 × 'Coral' made in 1957 at the Rice Experiment Station, Biggs, California. The parent, 48TA1-12 was a glabrous (smooth-hull) selection from the cross CI-1-1-2 × Caloro. CI-1-1-2 was selected from a 3-year test-plot of Smooth No. 5 (unrecorded origin). Selection and purification were carried out at the Biggs Station. During evaluation CS-S4 was designated 57345-1-4. The cultivar was released in 1971.

CS-S4 is a short-grain (pearl) cultivar which has a glabrous leaf blade, lemma and palea except some hairs are found on the margins of the leaf blades and on the lemma keel. None of the plant organs of CS-S4 contain anthocyanin pigment. The lack of anthocyanin pigment is one of the principal differences between CS-S4 and the parent CI-1-1-2. Another important characteristic of CS-S4 is that it is a short-grain cultivar with a pearl texture.