been submitted for protection under the U.S. Plant Variety Protection Act, Public Law 91-577 by the Nebraska Agricultural Research Division and will be sold only as a class of certified seed. Seed classes designated by the Nebraska Agricultural Research Division are breeder, registered, foundation, and certified. Breeder seed will be maintained by the Nebraska Agricultural Research Division.


References and Notes

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REGISTRATION OF 'REDLAND' WHEAT

'REDLAND' wheat (Triticum aestivum L.) (Reg. no. 741), PI 502907, is a hard red winter wheat comprised of 24 lines selected for uniform stem rust resistance from 'Brule' wheat (1). One hundred spikes were selected from Brule in 1981 and seeded as rows that fall. Composites ofurediospores of stem rust (caused by Puccinia graminis Pers. f. sp. tritici Eriks. and E. Henn.) were applied to the head row nursery in the spring of 1982 and 1983 and resistant head rows were selected for seed increase. In 1984, 24 resistant lines were harvested and composited for breeder seed increase. In 1985, the breeder seed increase was tested state wide as NE 851182. After harvest it was distributed to the Foundation Seed Division for seed increase and for evaluation in milling and baking tests. In 1986 it was tested as NE 851182 in the Southern and Northern Regional Performance Nurseries.

Redland differs from Brule for stem rust resistance. Brule is heterogeneous for stem rust reaction while Redland is resistant. Redland has the delayed susceptibility to leaf rust (incited by Puccinia recondita Rob. ex Desm. f. sp. tritici Eriks.) similar to its parent, 'Gage'. It has shown moderately low infection to powdery mildew (caused by Erysiphe graminis D.C. f. sp. tritici E. Marchal). It was intermediate in reaction to soybean wheat mosaic virus, and it is tolerant to wheat streak mosaic virus. Redland has the 'Marquillo'-'Kawvale' type of resistance to the Great Plains biotype of Hessian fly [Mayetiola destructor (Say)]. Redland has good hard wheat milling properties. Flour of Redland is superior to 'Scout 66' in bread baking properties, long dough mixing, strong mixing tolerance, and loaf volume.

Redland differs very slightly from Brule. It is slightly shorter in height (about 4 cm) and about 0.5 d later in maturity. It has been shorter in beak length, averaging about 2.5 mm, 1 mm shorter than for Brule. Redland was named and released in 1986 by the Nebraska Agricultural Research Division and the USDA-ARS. It has been submitted for protection under the U.S. Plant Variety Protection Act, Public Law 91-577 by the Nebraska Agricultural Research Division to be sold only as a class of certified seed. Seed classes designated by the Nebraska Agricultural Research Division are breeder, registered, foundation, and certified. Breeder seed will be maintained by the Nebraska Agricultural Research Division.

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References and Notes
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REGISTRATION OF AU CYCLE 2 ALFALFA GERMPLASM

AU CYCLE 2 alfalfa (Medicago sativa L.) (Reg no. GP-209) (PI 522238) was developed and released by the Alabama Agricultural Experiment Station, Auburn University. It is the result of 13 yr of alfalfa improvement using recurrent phenotypic selection for plant persistence, and was released January 1988. The base population from which this germplasm was derived consisted of 50 random plants from each of 90 cultivars and experimental lines obtained from public and private sources throughout the USA. These 4500 plants were grown in a greenhouse and transplanted to a selection nursery at Auburn University's Plant Breeding Unit, Talladega, AL, in the autumn of 1974. Plants were established on 1-m centers, and were clipped at ground level on a monthly basis (approximately seven times per year) beginning in the spring of 1975. In April 1979, one plant was selected from each of 57 of the above cultivars and experimental lines based on persistence and vigor.

Two propagules each of these 57 plants were transplanted to an isolation block and were pollinated by honeybees (Apis mellifera L.) at the nursery. Seed from this nursery was bulked, seeded into rows, and the resulting plants were mated again using honeybees. Seeds from this second mating were bulked and designated AU CYCLE 1 alfalfa.

Seeds of AU CYCLE 1 alfalfa were germinated in the greenhouse and 5000 randomly selected individuals were transplanted in an isolated nursery. Plants were established in 1-m rows, spaced 150 mm apart in the row in the autumn of 1982. They were clipped near ground level at approximately 10% bloom, beginning in the spring of 1983. After 4