REGISTRATION OF '5364' ALFALFA

'S5364' ALFALFA (Medicago saliva L.) (Reg. no. 162) (PI 533625) was developed by Pioneer Hi-Bred International, Inc. and tested experimentally as XAR64, YAR64, JHR873, and 83CR252. The cultivar was released 24 Feb. 1989.

'S5364' is a fifteen-clone synthetic with parental clones selected for forage yield based on progeny testing and for one or more of the following: seed yield, bacterial wilt caused by the bacterium Clavibacter michiganense subsp. insidiosum (McCulloch) Davis et al., 1984, Verticillium wilt (caused by Verticillium albo-atrum Reinke and Berth.), Phytophthora root rot (caused by Phytophthora megasperma Drechs. f. sp. Medicago Kuan and Erwin), anthracnose (caused by Colletotrichum trifolii Bain), and biotypes of the spotted alfalfa aphid [Therioaphis maculata (Buckton)] found in Fresno County, CA. Germplasm sources (1) of 5364 include approximately 3% M. falcata, 6% 'Ladak', 19% M. varia, 6% Turkistan, 53% Flemish, 12% Chelian, and 1% Peruvian tracing back through ‘Vernal’, ‘Saranac’, ‘Saranac AR’, ‘Dawson’, ‘Culver’, ‘Irroquois’, Flemish, and Flemish × Vernal.

Fall dormancy of 5364 is similar to that of Saranac. 5364 has high resistance to spotted alfalfa aphid and pea aphid [Acyrthosiphon pisum (Harris)] biotypes occurring in California and Iowa, respectively; resistance to bacterial wilt, Fusarium wilt [caused by Fusarium oxysporum Schlecht. f. sp. medicaginis (Weimer) Snyd. and Hans.], and stem nematode [Ditylenchus dipsaci (Kuhn) Filipjev]; moderate resistance to anthracnose, Verticillium wilt, and Phytophthora root rot. 5364 has been tested for forage yield throughout the northern regions of the USA. Flower color is approximately 98% purple, 2% variegated, and a trace of yellow, cream, and white.

Seed increase is limited to one, two, and one generation of breeder, foundation, and certified seed classes, respectively. Limitation of age of stand is 3 and 5 yr, respectively, for foundation and certified seed. Seed produced from the certified class is not recognized as 5364. 5364 was favorably reviewed in 1988 by the National Alfalfa Variety Review Board. Application has been made for plant variety protection.

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References and Notes

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REGISTRATION OF 'LLOYD' SOYBEAN

'Lloyd' soybean [Glycine max (L.) Merr.] (Reg. no. 239) (PI 533602) was developed by the Arkansas Agricultural Experiment Station. It is a determinate cultivar of Maturity Group VI that is adapted for planting where soybean cyst nematode (SCN) (Heterodera glycines Ichinohe), stem canker (caused by Diaporthe phaseolorum (Cke. & Ell.) Sacc. var. caulivora, Althow & Caldwell), and common races of phytophthora rot (caused by Phytophthora megasperma Drechs. f. sp. glycinea Kuan and Erwin) are production problems.

Lloyd originated from an F₂ selection from the cross 'Centennial' × R75-12L. The R75-12L is a selection from the cross R72-2647(3) × selection from (D68-18 × PI 88788). The R72-2647 is similar in growth type to 'Lee' but is resistant to Races 3 and 4 of SCN. The D68-18 is a sister line to 'Forrest' and is resistant to Race 3 of SCN. Lloyd was evaluated in Southern Regional Tests in 1981 and in tests in Arkansas during the period 1980 to 1987, under the designation of R79-772.