Registration of '5472' Alfalfa

'5472' ALFALFA (Medicago sativa L.) (Reg. no. CV-172, PI 540540) was developed by Pioneer Hi-Bred International, Inc. and tested experimentally as XAL72 and YAL72. The cultivar was released 13 Feb. 1990.

5472 is a 16-clone synthetic selected for one or more of the following: bacterial wilt [caused by the bacterium Clavibacter michiganense subsp. insidiosum (McCulloch) Davis et al., 1984], phytophthora root rot (caused by Phytophthora medicaginis Hansen & Maxwell; syn. P. megasperma Drechs. f. sp. medicaginis T. Kuan & D.C. Erwin), spotted alfalfa aphid [Theroaphis maculata (Buckton)], and anthracnose (Race 1) (caused by Colletotrichum trifolii Bain & Essary). In addition, parental clones were evaluated for forage yield and pest resistance using progeny tests at several locations throughout the USA. Germplasm sources of 5472 include approximately 8% M. falcata, 9% Ladak, 28% M. varia, 4% Turkistan, 44% Flemish, and 7% Chilean.

5472 is a winterhardy variety with fall dormancy similar to that of Saranac. The cultivar has high resistance to bacterial wilt, fusarium wilt [caused by Fusarium oxysporum Schlechtend. f. sp. medicaginis (J.L. Weimer) W.C. Snyder & H.N. Hans.], phytophthora root rot, stem nematode [Ditylenchus dipsaci (Kühn) Filipjev], and spotted alfalfa aphid; moderate resistance to anthracnose (Race 1) (caused by Verticillium albo-atrum (Berk.) Rostr., and phytophthora root rot. 5472 has been tested for forage yield throughout the northern regions of the USA. Flower color is approximately 91% purple, 9% variegated, yellow, cream, and white.

Seed increase is limited by one, two, and one generation of breeder, foundation, and certified seed classes, respectively. Limitation of age of stand is 3 and 5 yr, for foundation and certified seed, respectively. Seed produced from the certified class is not recognized as 5472. 5472 was favorably reviewed in 1988 by the National Alfalfa Variety Review Board. A U.S. Plant Variety Protection Certificate (No. 9000153) was issued for 5472 on 29 June 1990.


References and Notes
1. Pioneer Hi-Bred International, Inc., P.O. Box 916, Des Moines, IA 50302-0916.

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Registration of '5683' Alfalfa

'5683' ALFALFA (Medicago sativa L.) (Reg. no. CV-173, PI 560332) was developed by Pioneer Hi-Bred International, Inc., and tested experimentally as XAS61 and YAS61. The cultivar was released 17 May 1988.

5683 is a twenty-clone synthetic with parents originating from several experimental lines tracing to ‘Washoe’, ‘Caliverde 65’, and ‘Lahonton’. Parent clones were selected from several experimental populations for one or more of the following: phytophthora root rot (caused by Phytophthora medicaginis Hansen & Maxwell; syn. P. megasperma Drechs. f. sp. medicaginis T. Kuan & D.C. Erwin), spotted alfalfa aphid [Theroaphis maculata (Buckton)] found in Fresno County, CA., and bacterial wilt [caused by the bacterium Clavibacter michiganense subsp. insidiosum (McCulloch) Davis et al., 1984]. In addition, parental clones were evaluated for forage yield and pest resistance using progeny tests at several locations throughout the USA. Germplasm sources of 5683 include approximately 76% Turkistan and 24% Chilean.

Fall dormancy of 5683 is similar to that of ‘Mesilla’. 5683 has high resistance to spotted alfalfa aphid; resistance to fusarium wilt [caused by Fusarium oxysporum Schlechtend. f. sp. medicaginis (J.L. Weimer) W.C. Snyder & H.N. Hans.], phytophthora root rot, stem nematode [Ditylenchus dipsaci (Kühn) Filipjev], and pea aphid [Acyrthosiphon pisum (Harris)]; moderate resistance to bacterial wilt and blue alfalfa aphid [Acyrthosiphon kondoi Shinji]. 5683 has been tested for yield in the southwestern regions of the USA. Flower color is predominantly purple with a trace of variegated.

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, for foundation and certified seed, respectively. Seed produced from the certified class is not recognized as 5683. 5683 was favorably reviewed in 1989 by the National Alfalfa Variety Review Board. A U.S. Plant Variety Protection Certificate (No. 8900181) was issued for 5683 on 30 Apr. 1990.


References and Notes
1. Pioneer Hi-Bred International, Inc., P.O. Box 916, Des Moines, IA 50302-0916.

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