resistance to bacterial wilt [caused by Corynebacterium insidiosum (McCull.) H. L. Jens.] and biotypes of the spotted alfalfa aphid [Theroaphis maculata (Buckton)] found in Fresno County, CA. Germplasm sources (1) of 532 include approximately 20% M. varia, 6% 'Ladak', 2% Turkistan, 6% M. falcata, 5% Chilean, and 61% Flemish, tracing back more currently to 'Saranac', 'Vernal', 'DuPuits', '530', and 'Alfa'.

Fall dormancy of 532 is similar to that of 'Ranger'. 532 has high resistance to bacterial wilt, spotted alfalfa aphid; resistance to Fusarium wilt [caused by Fusarium oxysporum Schlecht. f. sp. medicaginis (Weimer) Snyder and Hans.] and biotypes of the pea aphid [Acyrthosiphon pisum (Harris)] occurring in California; low resistance to Phytophthora root rot (caused by Phytophthora megasperma Drechs. f. sp. medicaginis Kuan and Erwin), anthracnose (caused by Colletotrichum trifolii Bain), and stem nematode [Ditylenchus dipsaci (Kuhn) Filipjev]. 532 has been tested for forage yield throughout the northern, central, and southeastern regions of the USA and is intended to be used for hay, haylage, dehydration, and greenhouse production in these general areas. Flower color is approximately 90% purple and 10% variegated.

One generation each of breeders, foundation, registered, and certified seed classes is recognized. Foundation or registered seed may be used to establish certified seed fields. A maximum of 3 and 5 harvest yr is permitted on stands producing foundation or registered and certified seed, respectively. 532 was favorably reviewed in 1983 by the National Certified Alfalfa Variety Review Board. It is not covered by plant variety protection.

W. T. W. Woodward,* J. W. Miller, and M. K. Miller

References and Notes


2. W.T.W. Woodward, Dep. of Alfalfa Breeding, Pioneer Hi-Bred Int., Inc., P.O. Box 287, Johnston, IA 50131; J.W. Miller, retired (formerly, Dep. of Alfalfa, Pioneer Hi-Bred Int., Inc.); and M.K. Miller, deceased (formerly, Pioneer Hi-Bred Int., Inc.). Registration by CSSA. *Corresponding author. Accepted 30 July 1987.

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REGISTRATION OF ‘5929’ ALFALFA

‘5929’ alfalfa (Medicago sativa L.) (Reg. no. 152) (PI 510692) was developed by Pioneer Hi-Bred International, Inc., and tested experimentally as XAN21, 80MNQ-1, and UMNQ-1. The cultivar was released 31 Aug. 1983. 5929 is a 63-clone synthetic nondormant cultivar derived by blending equal quantities of seed of three nondormant isolations of similar background to obtain breeders seed. Parental clones were selected for forage yield (based on progeny testing), seed yield, and resistance to: Fusarium wilt [caused by Fusarium oxysporum Schlecht. f. sp. medicaginis (Weimer) Synd and Hans.], Phytophthora root rot (caused by Phytophthora megasperma Drechs. f. sp. medicaginis Kuan and Erwin) and biotypes of the blue alfalfa aphid (Acyrthosiphon kondoi Shinni) and spotted alfalfa aphid [Theroaphis maculata (Buckton)] found in Fresno County, CA. Germplasm sources (1) of 5929 include approximately 1% ‘Ladak’, 2% M. varia, 10% Turkistan, 1% Flemish, 6% Chilean, 2% Peruvian, 24% Indian, and 54% African, tracing back more currently through ‘CUF 101’ ‘Moapa 69’, and five Pioneer experimental accessions of African and Indian origin.

Fall dormancy of 5929 is similar to that of CUF 101. 5929 has high resistance to Fusarium wilt and blue alfalfa aphid; resistance to spotted alfalfa aphid, Phytophthora root rot, and biotypes of pea aphid [Acyrthosiphon pisum (Harris)] occurring in California; low resistance to bacterial wilt (caused by Corynebacterium insidiosum (McCull.)) 5929 has been tested for forage yield in the southwestern part of the USA and is intended for use as hay, haylage, dehydration, and greenhouse production in this general area. Flower color is approximately 27% dark purple to moderately dark purple, 72% light purple, and 1% very light purple.

Two generations of foundation and one generation each of breeder and certified seed classes are recognized. A maximum of 3 and 4 harvest yr is permitted on stands producing foundation and certified seed, respectively. 5929 was favorably reviewed in 1983 by the National Certified Alfalfa Variety Review Board. It is not covered by plant variety protection.

W. T. W. Woodward,* J. W. Miller, M. K. Miller, and B. J. Hartman

REGISTRATION OF ‘PENNCO’ BARLEY

‘PENNCO’ winter barley (Hordeum vulgare L.) (Reg. no. 206), PI 506421, was developed by the Pennsylvania Agricultural Experiment Station and USDA-ARS, and released in 1985. It has high yield, good standability, and good field resistance to diseases.

Penneco was derived from a bulk population obtained from T.M. Starling of the Virginia Agricultural Experiment Station. The pedigree of the bulk population is complex. One parental line was from a composite bulk population of the crosses CI 9623/Rapidan, CI 9628/Hanover, BYDV resistant ‘Atlas’/Rapidan, and CI 9708/Rapidan. The pedigree of the other parental line was ‘Harrison’/3/Cebada Capa/‘Wong’/awnleted ‘Hudson’ selection. Penneco traces to an initial F1 selection made from this bulk population in Lancaster County, PA, in 1979.

Penneco was evaluated in replicated single-row plots in Centre County, PA, and in replicated yield trials in 1982-1985 in Lancaster County and in 1984-1985 in Centre County. Averaged over 3 yr, yield of Penneco exceeded that of ‘Maury’ and ‘Pennrad’ by 17 and 43%, respectively, in Lancaster County. The 2-yr average yield of Penneco exceeded that of Maury and Pennrad by 7 and 16%, respectively, in Centre County. Penneco had better standability than either Maury, Pennrad, or ‘Barsoy’ in these tests. Winterhardiness, plant height, and test weight of Penneco were comparable to Maury. Penneco headed about 3 d earlier than Maury and Pennrad in Pennsylvania.