Mesilla by 34, 18, and 33% in high moisture stress, intermediate moisture stress, and optimum moisture conditions, respectively.

The Syn. 1 seed was produced by polycrossing the 29 parent clones in replicated, cage isolated crossing blocks with pollination by honeybees (Apis mellifera L.) with equal quantities from each parent composited. The Syn. 2 seed (Breeders seed) was produced from Syn. 1 in geographic isolation. Seed increase is on a four generation basis with certified seed produced from foundation or registered seed classes in New Mexico, Idaho, California, Washington, or Oregon. Stand longevity will be limited to 4 yr for breeders and foundation seed fields and 6 yr for registered or certified seed fields.

Wilson was favorably reviewed by the National Certified Alfalfa Variety Review Board in January 1988. Application will not be made for plant variety protection.

Bill Melton,* Marvin Wilson, and Cliff Currier (2)

References and Notes

1. The field stress procedure consists of (i) selecting a uniform, well-drained field, (ii) seeding at 22 to 45 kg/ha using two or three irrigations for seedling establishment, (iii) no further irrigations, (iv) select when approximately 99% of plants appear dead for ability to survive and grow, and (v) selections usually made in mid-summer of second year.


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REGISTRATION OF '5331' ALFALFA

'5331' alfalfa (Medicago sativa L.) (Reg. no. 157) (PI 522244) was developed by Pioneer Hi-Bred International, Inc. and tested experimentally as XAR53, YAR53, JHR872, and 83SR221. The variety was released 25 February, 1988.

'5331' is a variety comprised from 200 plants originating from experimental lines selected through progeny testing, appearance of clones as space plants, for rapid postharvest regrowth, observation of forage yield based on progeny testing, appearance of clones as space plants, seed yield, and resistance to: bacterial wilt (caused by the bacterium Clavibacter michiganenise subsp. insidiosum Davis et al. 1984), and biotypes of the spotted alfalfa aphid [Therothips maculata (Buckton)] found in Fresno County, California. Germplasm sources (1) of 5331 include approximately 33% M. varia, 12% 'Ladak', 11% Turkistan, 3% M. falcata, 17% Chilean, and 24% Flemish tracing back through 'Kanza', 'Saranac', 'Culver', 'Vernal', '530', 'DuPuits', and Arkansas MSWT65.

Fall dormancy of '555' is similar to that of DuPuits. '555' has resistance to bacterial wilt [caused by Fusarium oxysporum Schlecht. f. sp. medicaginis (Weimer) Snyder and Hans.] and spotted alfalfa aphid and pea aphid [Acyrthosiphon pisum (Harris)] biotypes occurring in California. '555' has been tested for forage yield throughout the central and southern regions of the USA and is adapted for general forage use from eastern Colorado, south through New Mexico, and certified seed, respectively. Seed produced from certified seed is not recognized as 5331. 5331 was favorably reviewed in 1987 by the National Alfalfa Variety Review Board. A plant variety protection certificate (no. 8800157) was issued in August 1988.


REGISTRATION OF '555' ALFALFA

ALFALFA '555' (Medicago sativa L.) (Reg. No. 158) (PI 522245) was developed by Pioneer Hi-Bred International, Inc. and tested experimentally as FZ-2 and 75Z-1. The variety was released 24, May 1979.

'555' is a 14-clone synthetic with parental clones selected for rapid postharvest regrowth, observation of forage yield based on progeny testing, appearance of clones as space plants, seed yield, and resistance to: bacterial wilt (caused by the bacterium Clavibacter michiganenise subsp. insidiosum Davis et al. 1984), and biotypes of the spotted alfalfa aphid [Therothips maculata (Buckton)] found in Fresno County, California. Germplasm sources (1) of 555 include approximately 33% M. varia, 12% 'Ladak', 11% Turkistan, 3% M. falcata, 17% Chilean, and 24% Flemish tracing back through 'Kanza', 'Saranac', 'Culver', 'Vernal', '530', 'DuPuits', and Arkansas MSWT65.

Fall dormancy of '555' is similar to that of DuPuits. '555' has resistance to bacterial wilt [caused by Fusarium oxysporum Schlecht. f. sp. medicaginis (Weimer) Snyder and Hans.] and spotted alfalfa aphid and pea aphid [Acyrthosiphon pisum (Harris)] biotypes occurring in California. '555' has been tested for forage yield throughout the central and southern regions of the USA and is adapted for general forage use from eastern Colorado, south through New Mexico, eastward through Kansas and Oklahoma, to Virginia, and in northern areas where seedings are protected by snow cover. Flower color is approximately 90% purple and 10% variegated.

One generation each of breeder, foundation, and certified seed classes is recognized. A maximum of three and five harvest years is permitted on stands producing foundation and certified seed, respectively. Seed produced from certified seed is not recognized as 555. 555 was favorably reviewed in 1979 by the National Certified Alfalfa Variety Review Board. No plant variety protection was made.

W. T. W. Woodward,* J. W. Miller (2)