In greenhouse tests at Las Cruces, N. Mex., the percentages of resistant plants to the pea aphid \( \text{(Acyrthosiphon pisum) (Harris)} \) were 18, 39, 2 and 15 for EUAN-5, ‘Mesilla’, ‘Buffalo’ and El Unico, respectively. Percentages of plants resistant to the spotted alfalfa aphid \( \text{(Theroaphis maculara) (Buckton)} \) were 21, 31, 1, and 19 for EUAN-5, Mesilla, Buffalo and El Unico, respectively. EUAN-5 is susceptible to the blue alfalfa aphid \( \text{(Acyrthosiphon kondoi Shinji)} \). In tests conducted at St. Paul, Minn., percent resistance to bacterial wilt caused by \( \text{Corynebacterium insidiosum} \) (McCull.) H.L. Jens were 9, 21, 3, 40, and 2 for EUAN-5, Mesilla, El Unico, ‘Vernal’ and Narragansett, respectively. Percentages of resistant plants to Fusarium wilt caused by \( \text{Fusarium oxysporum} \) by \( \text{Kuan and Erwin} \) were 48, 52, and 55 for EUAN-5, El Unico and ‘Moapa 69’. Percentages of plants resistant to Phytophthora root rot caused by \( \text{Phytophthora megasperma} \) Drechs. f. sp. \text{medicagoe Kuan and Erwin} were 14, 1 and 30 for EUAN-5, El Unico and ‘Agate’, respectively.

Forage yield was similar to the parent cultivar, El Unico, at Las Cruces.

Seed stocks of EUAN-5 are maintained by the Crop and Soil Sciences Dep., New Mexico State Univ., Las Cruces, NM, 88003. Five gram seed samples will be supplied upon request and agreement to acknowledge its source when it contributes to the development of a new cultivar, hybrid or breeding line.

BILL MELTON, DON MILLER, LARRY TEUBER, AND MARK WALTON

References and Notes

1. Professor, graduate student, and former graduate students, respectively, Dep. of Crop and Soil Sciences, New Mexico State Univ., Las Cruces, NM 88003. Registration by Crop Sci. Soc. of Am. Contribution from the New Mexico Agric. Exp. Stn. Journal Article No. 987. Accepted 22 Mar. 1983.

EUPH-5 ALFALFA GERMPLASM

EUPH-5 alfalfa \( \text{(Medicago sativa L.) (Reg. No. GP130)} \) germplasm was released by the New Mexico Agricultural Experiment Station in September 1982. It was released primarily as a semi-dormant source of resistance to races 1 and 2 of anthracnose, caused by \( \text{Colletotrichum trifolii} \) Bain, but also has useful levels of resistance to other pests.

EUPH-5 was developed by five cycles of phenotypic recurrent selection for resistance to Phytophthora root rot in the cultivar ‘El Unico’ (Crop Sci. 13:1973). Mixed cultures of highly virulent isolates from New Mexico and other areas of the United States were used as inoculum. From 60 to 140 plants were selected in each cycle and intercrossed by honeybees \( \text{(Apis mellifera L.) in screen wire cages. EUPH-5 was released as the Syn. 1 generation.} \)

In tests conducted at St. Paul, Minn., percentages of plants resistant to Phytophthora root rot were 62, 1, 1, and 30 for EUPH-5, El Unico, ‘Saranac’, and ‘Agate’, respectively. Percentage of plants resistant to Fusarium wilt caused by \( \text{Fusarium oxysporum} \) Schlecht. f. sp. \text{medicagoe (Weimer) Snyd.} \& Hans. were 48, 52, and 55 for EUPH-5, El Unico and ‘Moapa 69’, respectively. Percentages of plants resistant to bacterial wilt caused by \( \text{Corynebacterium insidiosum} \) (McCull.) H.L. Jens were 10, 3, 40, and 2 for EUPH-5, El Unico, ‘Vernal’, and ‘Narragansett’, respectively.

In greenhouse tests conducted at Las Cruces, N.M., percentages of plants resistant to the pea aphid \( \text{(Acyrthosiphon pisum) (Harris)} \) were 22, 39, 2, and 15 for EUPH-5, ‘Mesilla’, ‘Buffalo’, and El Unico, respectively. Percentages of plants resistant to the spotted alfalfa aphid \( \text{(Theroaphis maculara) (Buckton)} \) were 29, 31, 1, and 19 for EUPH-5, Mesilla, Buffalo and El Unico, respectively. EUPH-5 is susceptible to the blue alfalfa aphid \( \text{(Acyrthosiphon kondoi Shinji)} \). Percentages of plants resistant to anthracnose caused by \( \text{Colletotrichum trifolii} \) Bain were 10, 1, and 51 for EUPH-5, El Unico, ‘Saranac’, and ‘M8A-CW3-AN5’, respectively.

Forage yield was similar to the parent cultivar, El Unico, as tests at Las Cruces, N. Mex.

Seed stocks of EUPH-5 are maintained by the Crop and Soil Sciences Dep., New Mexico State Univ., Las Cruces, NM, 88003. Five grain seed samples will be supplied upon request and agreement to acknowledge its source when it contributes to the development of a new cultivar, hybrid or breeding line.

EUPH-5 ALFALFA GERMPLASM

EUPH-5 alfalfa \( \text{(Medicago sativa L.) (Reg. No. GP131)} \) germplasm was released by the New Mexico Agricultural Experiment Station in September 1982. It was released primarily as a semi-dormant source of resistance to races 1 and 2 of anthracnose, caused by \( \text{Colletotrichum trifolii} \) Bain, but also has useful levels of resistance to other pests.

MAN-5 was developed from the cultivar ‘Mesilla’ (Crop Sci. 8:639, 1968) by five cycles of phenotypic recurrent selection for anthracnose resistance. Mixed cultures of local isolates and isolates obtained from other parts of the United States were used as inoculum. From 60 to 140 plants were selected in each cycle and intercrossed by honeybees \( \text{(Apis mellifera L.) in screen wire cages. MAN-5 was released as the Syn. 1 generation.} \)

In tests conducted at Beltsville, Md., percentages of plants resistant to anthracnose race 1 were 45, 1, 60, 74, and 9, for race 2, 32, 1, 66, 8, and 1 for MAN-5, Mesilla, ‘Saranac AR’, ‘Arc’, and ‘Saranac’, respectively.

In greenhouse tests at Las Cruces, N. Mex., the percentages of plants resistant to the pea aphid \( \text{(Acyrthosiphon pisum) (Harris)} \) were 47, 45, and 2 for MAN-5, Mesilla and ‘Buffalo’, respectively. Percentages of plants resistant to spotted alfalfa aphid \( \text{(Theroaphis maculara) (Buckton)} \) biotypes in New Mexico were 33, 35, and 1 for MAN-5, Mesilla, and Buffalo, respectively. MAN-5 is susceptible to the blue alfalfa aphid \( \text{(Acyrthosiphon kondoi Shinji)} \).

In tests conducted at St. Paul, Minn., percentages of resistant plants to bacterial wilt caused by \( \text{Corynebacterium insidiosum} \) (McCull.) H.L. Jens were 31, 35, 40, and 2 for MAN-5, Mesilla, ‘Vernal’ and ‘Narragansett’, respectively. Percentages of resistant plants to Phytophthora root rot caused by \( \text{Phytophthora megasperma} \) Drechs. f. sp. \text{medicagoe Kuan and Erwin} were 12, 1, and 45 for MAN-5, Mesilla and ‘Agate’, respectively. Percentages of plants resistant to Phytophthora root rot caused by \( \text{Fusarium oxysporum} \) Schlecht. f. sp. \text{medicagoe (Weimer) Snyd.} \& Hans. were 38, 38, and 55 for MAN-5, Mesilla, and ‘Moapa 69’ respectively.

Forage yield at Las Cruces was significantly higher than the parent cultivar, Mesilla.

Seed stocks of MAN-5 are maintained by the Crop and Soil Science Dep., New Mexico State Univ., Las Cruces, NM, 88003.