Registration of Germplasms

REGISTRATION OF WASHINGTON SNI ALFALFA GERMPLASM

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WASHINGTON SNI alfalfa (Medicago sativa L.) germplasm was developed cooperatively by AR-SEA-USDA, and the Nevada and Washington Agricultural Experiment Stations. The Syn 2 generation was released as germplasm to scientists in July 1978.

Washington SNI was developed from a composite of 10 alfalfa lines resistant to stem nematode [Ditylenchus dipsaci (Kühn Filipjev)], two lines resistant to anthracnose caused by Colletotrichum trifolii Bain and two lines resistant to Phytophthora root rot caused by Phytophthora megasperma Drechs. Origins of the 14 parental lines included: Saranac An4 and Vernal An6 both resistant to anthracnose (1); MnPCa ('Lahontan') and MnPAa ('Agate'), both resistant to Phytophthora root rot (4); and WFS3 ('Williamburg'), WDS3 ('Vernal'), WAS3 ('Team'), WGS3 ('Talent'), WRS1 ('Nemato 1'), WSC3 (Nebraska Syn Y), WNS1 (P.I. 279958 from Turkey), WES3 (Nevada Syn WW), WHS3 (P.I. 141462 from Iran), and WIS3 ('Lan-hontan'), all resistant to stem nematode (2, 5).

Parent lines were seeded in replicated 30-cm rows in a cage and were maintained in equal maternal proportion for two additional cycles of recombination. About 1,500 plants were screened for resistance to stem nematode after the second cycle of recombination. About 200 selections with resistance to stem nematode were intercrossed by honeybees in a cage to produce Syn 1 seed. Syn 2 seed was produced by intercrossing 200 Syn 1 plants by honeybees (Apis mellifera) in an isolation cage.

REFERENCES


REGISTRATION OF NMP-8 AND NMP-10 NONDORMANT ALFALFA GERMPLASM

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NMP-8 (GP 97) was developed from SW32, a modified 'Moa-to' alfalfa, and Arizona Ron PX germplasm. About 3,000 plants were screened in each of three cycles of selection at Beltsville, Md. for resistance to anthracnose caused by Colletotrichum trifolii Bain. About 250 to 300 plants were recombined after each cycle of selection. This was followed by two cycles of selection at St. Paul, Minn. for resistance to Phytophthora root rot caused by Phytophthora megasperma Drechs. About 2,500 plants were screened per cycle of selection recombined after each cycle.

NMP-10 (GP 98) was developed from plants selected from six nondormant sources: resistant plants from SW17 ('African'), SW29 ('African'), 31 from UG71 (1) (African), 10 from N14120P (African), 'Turkistan', and Saranac (susceptible check) was 33, 74, 42, and 2, respectively. In tests for bacterial wilt caused by Pseudomonas insidiosum (McCull.) H. L. Jens, also on the resistant plants in NMP-8 and NMP-10, 'Arc' (resistant check) was 47, 51, 83, and 2, respectively. In tests for bacterial wilt caused by Pseudomonas insidiosum (McCull.) H. L. Jens, also on the resistant plants in NMP-8 (resistant check), and 'Narragansett' (susceptible check) was 4, 46, and 2, respectively.

Seed stocks of NMP-8 Syn 2 and NMP-10 Syn 2 are maintained by AR-SEA-USDA, College of Agriculture, University of Nevada, Reno, NV 89557. Each population will be supplied to each applicant upon written request and agreement to make appropriate recognition of the source if the germplasm contributes to a new hybrid.

REFERENCES