Registration of Crop Cultivars

REGISTRATION OF ‘WRANGLER’ ALFALFA

‘WRANGLER’ alfalfa (Medicago saliva L.) (Reg. no. 142) was developed cooperatively by the USDA-ARS and the Nebraska and Minnesota Agricultural Experiment Stations. It was tested as N.S. 79 P2 and released jointly with the Colorado, Kansas, Minnesota, and Wyoming Agricultural Experiment Stations in March 1985.

Wrangler was developed by conducting two cycles of recurrent phenotypic selection for phytophthora root rot resistance at St. Paul, MN, in the population N.S. 79. Approximately 100 plants were recombined at Lincoln, NE, after each cycle of selection. The N.S. 79 population resulted from combining 112 plants selected for pest resistance and vigor in winterhardy germplasm from the Nebraska USDA and Agricultural Experiment Station breeding program. The estimated genetic constitution of Wrangler is: 5% M. falcata, 5% ‘Ladak’, 20% M. varia, 65% Turkistan, and 5% Chilean. Four plant introductions (PI's 197298, 206278, 207494, and 234205) were included in the parentage.

Wrangler has high resistance to phytophthora root rot (caused by Phytophthora megasperma Drechs. f. sp. medicaginis Kuan and Erwin) compared with resistance in ‘Agate’. It has high resistance to pea aphid [Acyrthosiphon pisum (Harris)], similar to that of ‘Dawson’ and ‘Kanza’. It has high resistance to biotypes of the spotted alfalfa aphid [Thielaviopsis basicola (Buckton)] collected in Nebraska, compared with resistance in Dawson and Kanza. Wrangler has resistance to bacterial wilt [caused by Corynebacterium insidiosum (McCull.) H.L. Jens.], similar to that of ‘Vernal’. It has resistance to fusarium wilt (caused by Fusarium oxysporum Schlecht f. sp. medicaginis (Weimer) Synd. and Hans.), compared with high resistance in ‘Agate’. It has moderate resistance to downy mildew, (caused by Peronospora trifoliorum d By.), and to potato leafhopper yellowing [Empoasca fabae (Harris)], similar to that of Vernal. It has low resistance to verticillium wilt (caused by Verticillium albo-atrum Reinke and Berth). Wrangler has low resistance to anthracnose (caused by Colletotrichum gloeosporioides Wehrl.) field conditions, similar to that of ‘Baker’ action to stem nematode [Ditylenchus dipsaci (Kuhn) Filipjev] is unknown.

Wrangler is a winterhardy cultivar adapted for use in the North Central states and was tested for forage yields in eight North Central states, Colorado, and Wyoming, and for seed yields in Idaho.

Seed increase is limited to one generation per year from breeder, foundation, and certified seed. Certification application was made for plant variety protection under the certification provision.


References and Notes

1. Research agronomist (retired), USDA-ARS, Univ. of Nebraska, Lincoln, NE 68583; research plant pathologist (deceased), USDA-ARS, Univ. of MN 55108; research entomologist, USDA-ARS, entomology; assistant professor of agricultural biology, Nebraska, Lincoln, NE 68583. Cooperative investigations prepared by Agric. Exp. Stn. and the USDA-ARS. Published by director as Paper no. 7274, Journal Series, Nebraska, search reported was conducted under project no. 031. Registration by the Crop Sci. Soc. of Am. 1986.

REGISTRATION OF ‘DES 119’ COTTON

‘DES’ 119’ cotton (Gossypium hirsutum L.) (Reg. no. 88), was developed at the Delta Branch, Mississippi Agricultural and Forestry Experiment Station, Stoneville, MS, and released in 1985. DES 119 originated from a cross between those of DES 422. In 27 Mississippi tests, DES 119 has averaged 8% higher lint yield and was consistently higher in all 27 tests in less fusarium wilt symptoms [caused by Fusarium oxysporum Schlect. f. vasinfectum (Atk.) Synd. & Hans]. DES 422 in the Regional Fusarium Wilt Nursery at Tallahasee, AL, and more resistance to Heliothis spp. than DES 422. In 27 Mississippi tests, DES 119 has averaged 8% higher lint yield and was consistently higher in all 27 tests in less fusarium wilt symptoms (caused by Fusarium oxysporum Schlect. f. vasinfectum (Atk.) Synd. & Hans).