REGISTRATION OF WL 512, WL 514 AND WL 515 ALFALFA
(Reg. No. 102 to 104)

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‘WL 512’ (Reg. No. 102), ‘WL 514’ (Reg. No. 103) and ‘WL 515’ (Reg. No. 104) alfalfa (Medicago sativa L.) were developed by W-L Research, Inc.

WL 512 was tested experimentally as 74 NH PyR. It is composed of 1321 plants that were selected at Bakersfield, California for resistance to Phytophthora root rot (caused by Phytophthora megasperma Drechs.). Plants were derived from populations that exhibited good persistence at Bakersfield and had been screened during previous cycles of selection for resistance to one or more of the following: stem nematode [Diplocyclus dipsaci (Knbn) Filipjev], bacterial wilt [caused by Corynebacterium insidiosum (McCull.) H.L. Jens.], anthracnose (caused by Colletotrichum trifolii Bain), spotted alfalfa aphid [Thysanopis maculata (Buckton)] and Phytophthora root rot. Biotypes of all aphids referred to in the development and reaction of WL 512, WL 514 and WL 515 were those occurring in Kern County, Calif. Parental selections for WL 512 were derived as follows: 1091 plants from ‘WL 504’ (1) and ‘WL 506’ (2), 81 plants from ‘WL 600’ (3), 62 plants from ‘WL 450’ (3), and 87 plants from crosses involving ‘Sonora’, ‘Lahontan’, ‘Saratoga’, ‘Vernal’, ‘Atlantic’, Nevada N529 and University of California clones UC M9 and UC A14. Selected plants were interpollinated with honey bees (Apis mellifera L.) to produce breeder seed.

WL 512 is somewhat more fall-dormant than ‘Moapa 69’. It combines high resistance to spotted alfalfa aphid, resistance to pea aphid [Acrithosiphon pisum (Harr)] and Fusarium wilt [caused by Fusarium oxysporum Schlecht f. sp. medicaginis (Weimer) Snyder & Hans.]; moderate resistance to bacterial wilt, anthracnose, Phytophthora root rot and downy mildew (caused by Peronospora trifoliorum d By.); and low resistance to stem nematode.

WL 512 was tested experimentally as 70 T 4. It was developed in 1970 by mass selection from a three-year-old performance trial at Bakersfield, Calif. Parentage traces to ‘WL 501-R’ (3) (30.7%), WL 504 (21.4%), F, progeny of spotted alfalfa aphid resistant Sonora crossed with selections from an advanced generation of WL 504 (15.1%) and the non-dormant F, progeny from an outcrossed clone of the dormant cultivar ‘WL 209’ (32.8%). Parental plants (192 selections) were interpollinated with honey bees in an isolation cage at Bakersfield to produce breeder seed.

WL 512 is in the same fall-dormancy class as Moapa 69. It is resistant to spotted alfalfa aphid and pea aphid; moderately resistant to bacterial wilt, Fusarium wilt and blue alfalfa aphid [Acrithosiphon kondoi (Shinji)]; and low in resistance to Phytophthora root rot and stem nematode.

WL 514 was tested experimentally as 73 CA and 73 CA A-2. It was developed by screening several hundred thousand plants from Lahontan, Nevada N529, Atlantic, ‘Zia’, ‘WL 209’, 95 plants from ‘Zia’ and Experiment Station, the University of California; 17 plants from W-L Research, Inc. 7625 Brown Bridge Road, Highland, MD 20777. ‘PEACE’ alfalfa (Medicago sativa L.) was developed at the Agriculture Canada, Experimental Farm, Fort Vermilion, Alberta, Canada, Experimental Farm, Fort Vermilion, Alberta. ‘PEACE’ alfalfa (Medicago sativa L.) was developed by mass selection from a three-year-old performance trial at Bakersfield, Calif. Parentage traces to ‘WL 501-R’ (3) (30.7%), WL 504 (21.4%), F, progeny of spotted alfalfa aphid, pea aphid, Fusarium wilt from Santa Maria, Calif., and moderately resistant to blue alfalfa aphid. It has low resistance to bacterial wilt and smog damage.

The flower color of the three cultivars, WL 512, WL 513 and WL 515, is predominantly purple, with a few purple, red and white flowers. WL 512 and WL 513 are recommended for hay, haylage and seed. WL 515 is recommended for forage yield in California, Arizona and New Mexico where they are recommended for hay, haylage and seed. WL 515 has been tested for forage yield and recommended for use in California.

WL 512 and WL 514 seed are increased on a three generation basis; breeder, foundation and certified within the registered seed class. Breeder seed of WL 512 was produced in isolation in Kern County, Calif. Foundation seed was produced in the San Joaquin Valley of California. Certified seed of WL 512 and WL 514 is available for either foundation or breeder seed. Certified seed of WL 515 is available for registered seed.

WL 512, WL 514 and WL 515 were approved by the National Certified Alfalfa Variety Review Board in 1978 and 1981, respectively. Application has been made for plant variety protection.

REFERENCES

REGISTRATION OF PEACE ALFALFA
(Reg. No. 105)

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‘Peace’ alfalfa (Medicago sativa L.) was developed at the Agriculture Canada, Experimental Farm, Fort Vermilion, Alberta, Canada. It was tested as FV-74 at the University of California, Davis, California, 1975-1977, and received license number PE 5660.

‘Peace’ alfalfa is resistant to anthracnose, Phytophthora root rot and downy mildew. It is moderately resistant to bacterial wilt, Fusarium wilt and blue alfalfa aphid. It is resistant to spotted alfalfa aphid and pea aphid. It is moderately resistant to stem nematode. It is somewhat more fall-dormant than ‘Moapa 69’. It is resistant to bacterial wilt, Fusarium wilt and blue alfalfa aphid. It is resistant to spotted alfalfa aphid and pea aphid. It is moderately resistant to stem nematode.

‘Peace’ alfalfa is resistant to bacterial wilt, Fusarium wilt and blue alfalfa aphid. It is resistant to spotted alfalfa aphid and pea aphid. It is moderately resistant to stem nematode. It is somewhat more fall-dormant than ‘Moapa 69’. It is resistant to bacterial wilt, Fusarium wilt and blue alfalfa aphid. It is resistant to spotted alfalfa aphid and pea aphid. It is moderately resistant to stem nematode.