is intended for use in this general area for hay, greenchop and dehydration purposes.

Seed increase is limited to one generation each of breeder, foundation and certified seed classes. Seed produced from certified seed is not recognized as Vangard. There is no restriction on the area of production of foundation or certified seed.

Vangard was favorably reviewed by the National Certified Alfalfa Variety Review Board in 1976. It is not covered by a plant variety protection certificate.

Acknowledgement

We gratefully acknowledge the guidance of Dr. T. E. Devine, USDA-ARS, Beltsville, MD. on anthracnose screening procedures and for providing cultures of the causal organism.

REGISTRATION OF WL 221 AND WL 313
ALFALFA CULTIVARS
(Reg. Nos. 112 and 113)

D. F. Beard, I. I. Kawaguchi, J. L. Force, and J. L. Kugler

‘WL 221’ and ‘WL 313’ alfalfas (Medicago sativa L.) were developed by W-L Research, Inc.

WL 221 (Reg. No. 112) was tested experimentally as 75T3 and 76T17. WL 221 was developed by interpollinating 169 parent clones representing approximately equal numbers from each of 10 clones that had been selected for freedom from bacterial wilt [caused by Corynebacterium insidiosum (McCull.) H. L. Jens.], Fusarium wilt [caused by Fusarium oxysporum Schlecht. f. sp. medicaginis (Weimer) Snid. & Hans.], Lepptosphaeria leaf spot [caused by Leptosphaeria briosiana (Poll.) Graham & Luttrell], Stemphylium leaf spot (caused by Stemphylium botryosum Wallr.), common leaf spot (caused by Pseudopeziza medicaginis (Lib.) Sacch.), and anthracnose (caused by Colletotrichum trifolii Bain). Basic germplasm sources3 of WL 221 include approximately 19% M. falcata, 11% Ladak, 36% M. varia, 7% Turkistan (largely ‘Atlantic’, ‘Culver’, ‘Narragansett’, ‘Travois’, and ‘Vernal’), 15% Flemish (‘Saranac’), 8% Chilean, 1% Peruvian, and 3% Indian.

The fall-dormancy of WL 221 is similar to that of Vernal. WL 221 is characterized by having resistance to bacterial wilt, pea aphid [Acyrthosiphon pisum (Harris)] biotypes occurring in Maryland, and the spotted alfalfa aphid [Theroaphis maculata (Buckton)] biotypes occurring in Kern County, California, and moderate resistance levels to anthracnose and Fusarium wilt. WL 221 has been tested for forage yield from Maryland and Ontario westward to Wisconsin and Nebraska. It is recommended for hay and haylage production in the northern United States and adjacent areas of Canada. Flower color is approximately 40% purple, 58% variegated, 1% yellow, and 1% white.

WL 313 (Reg. No. 113) was tested experimentally as 74 Ca B, 75 Ca B, 74 Ca B, and 74-75-76 Ca B. It was developed by interpollinating 288 plants selected on the basis of controlled inoculation tests and field evaluation for resistance to the following pests: bacterial wilt, Fusarium wilt, Phytophthora root rot (caused by Phytophthora medicaginis (Poll.) Graham & Luttrell), and Anthracnose (caused by Colletotrichum trifolii Bain), Pseudopeziza medicaginis (Lib.) Sacch., and snow cover. Approximately 80% of its flowers are purple.

WL 313 is similar to Saranac in fall-dormancy characterized by having resistance to bacterial wilt, pea aphid with moderate levels of resistance to the potato leafhopper [Empoasca Fabae (Kuhn)] and biotypes of the spotted alfalfa aphid [Acyrthosiphon pisum (Harris)]. Basic germplasm sources3 of WL 313 include approximately 12% M. falcata, 10% Ladak, 47% M. varia and ‘Atlantic’, 2% Turkistan, 20% Flemish, 8% Chilean, and 1% Peruvian.

The fall-dormancy of WL 313 is similar to Saranac. WL 313 is characterized by having high resistance to bacterial wilt, Fusarium wilt and pea aphid [Acyrthosiphon pisum (Harris)] biotypes endemic to Maryland, potato leafhopper yellowing, and moderate resistance to Phytophthora root rot, anthracnose, stem nematode [Ditylenchus dipsaci (Kuhn)] biotypes, and 76% of its flowers are purple. WL 313 is adapted for use as hay or haylage from eastern California through Nebraska and Kansas eastward to Iowa, Nebraska, and Kansas and is not recognized as Vangard. There is no restriction on the area of production of foundation or certified seed.

Only breeder (Syn 1), foundation, and certified seed of WL 221 and WL 313 will be recognized. Breeder cultivars is to be planted in the northern region of adaptation to produce foundation seed with a maximum of three harvest years permitted. Certified seed will be produced from certified seed with a maximum of three harvest years permitted.

Reg. No. 114

J. L. Kugler, D. F. Beard, I. I. Kawaguchi, J. L. Force, and J. H. Graham

‘WL 315’ alfalfa (Medicago sativa L.) was developed by W-L Research, Inc. and tested experimentally as Ca 740 and Ca 834. WL 315 is composed of 30 parent clones that were selected for rapid post-harvest regrowth, numerous tillers, tolerance to yellowing by the potato leafhopper [Empoasca Fabae (Kuhn)] and freedom from the following pests: bacterial wilt [Corynebacterium insidiosum (McCull.) H. L. Jens.], anthracnose (caused by Colletotrichum trifolii Bain), Pseudopeziza medicaginis (Lib.) Sacch., anthracnose (caused by Colletotrichum trifolii Bain), Phytophthora root rot (caused by Phytophthora medicaginis (Poll.) Graham & Luttrell), and leaf spots (caused by Leptosphaeria briosiana (Poll.) Graham & Luttrell, and Stemphylium botryosum Wallr.). Basic germplasm sources3 of WL 315 include approximately 12% M. falcata, 10% Ladak, 47% M. varia and ‘Atlantic’, 2% Turkistan, 20% Flemish, 8% Chilean, and 1% Peruvian.

The fall-dormancy of WL 315 is similar to Saranac. WL 315 is characterized by having high resistance to bacterial wilt, Fusarium wilt and pea aphid [Acyrthosiphon pisum (Harris)] biotypes endemic to Maryland, potato leafhopper yellowing, and moderate resistance to Phytophthora root rot, anthracnose, stem nematode [Ditylenchus dipsaci (Kuhn)] biotypes, and 76% of its flowers are purple. WL 315 is adapted for use as hay or haylage from eastern California through Nebraska and Kansas eastward to Iowa, Nebraska, and Kansas and is not recognized as Vangard. There is no restriction on the area of production of foundation or certified seed.

Reg. No. 114

J. L. Kugler, D. F. Beard, I. I. Kawaguchi, J. H. Graham

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The fall-dormancy of WL 315 is similar to Saranac. WL 315 is characterized by having high resistance to bacterial wilt, Fusarium wilt and pea aphid [Acyrthosiphon pisum (Harris)] biotypes endemic to Maryland, potato leafhopper yellowing, and moderate resistance to Phytophthora root rot, anthracnose, stem nematode [Ditylenchus dipsaci (Kuhn)] biotypes, and 76% of its flowers are purple. WL 315 is adapted for use as hay or haylage from eastern California through Nebraska and Kansas eastward to Iowa, Nebraska, and Kansas and is not recognized as Vangard. There is no restriction on the area of production of foundation or certified seed.

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