REGISTRATION OF CULTIVARS

Registration of ‘WL 323’ Alfalfa

‘WL 323’ Alfalfa (*Medicago sativa* L.) (Reg. no. CV-192, PI 586638) was developed by W-L Research, Inc. This cultivar was tested under the experimental designation 89-31 and released in September 1992.

WL 323 is a synthetic cultivar composed of 165 plants selected for resistance to *Aphanomyces* root rot (caused by *Aphanomyces euteiches* Drechs., Strain 1). Source material traces to two experimental lines selected for winterhardiness and resistance to the spotted alfalfa aphid (*Therioaphis maculata* (Buckton)), phytophthora root rot [caused by *Phytophthora medicaginis* (Drechs.) E.M. Hans. & Maxwell], and verticillium wilt (caused by *Verticillium albo-atrum* Reinke & Berthier). Subsequent selection was performed for resistance to *Aphanomyces* root rot (Strain 1) in a field nursery. Parental germplasm traces to ‘DK 125’, ‘G-2852’, ‘break-thru’, ‘Vertus’, ‘Vernal’, and ‘Ranger’. Germplasm sources of WL 323 include approximately 8% falcate (*M. sativa* subsp. *falcata* (L.) Arcang.), 12% Ladak, 22% variegated (*M. sativa* nothosubsp. *varia* (Martyn) Arcang.; syn. *M. varia*), 5% Turkistan, 47% Flemish, and 6% Chilean.

Fall dormancy of WL 323 is similar to that of ‘Saranac’. WL 323 has high resistance to anthracnose (Race 1) (caused by *Colletotrichum trifolii* Bain & Essary), bacterial wilt [caused by *Clavibacter michiganense* subsp. *insidiosum* (McCulloch) Davis et al., 1984], fusarium wilt [caused by *Fusarium oxysporum* Schlechtend.:Fr. f. sp. *medicaginis* (J.L. Weimer) W.C. Snyder & H.N. Hans.], phytophthora root rot, and stem nematode (*Ditylenchus dipsaci* (Kühn) Filipjev); resistance to verticillium wilt, *Aphanomyces* root rot (Strain 1), and pea aphid (*Acrystosiphon pisum* (Harris)); and moderate resistance to the spotted alfalfa aphid. WL 323 is a moderately fall-dormant cultivar adapted for use in the northwestern, midwestern, and northeastern regions of the USA. The flower color of WL 323 approximates 65% purple and 35% variegated, with traces of cream and yellow. WL 323 has been tested for forage yield throughout the northern half of the USA and in the Canadian provinces of British Columbia, Ontario, and Quebec.

One generation of Breeder (Syn 1) and two generations each of Foundation (Syn 2 or 3) and Certified (Syn 3 or 4) seed classes are recognized. Breeder seed was produced under cage isolation at Warden, WA. Foundation seed was produced near Nampa, ID, and will be maintained by W-L Research, Inc. Maximums of 3 and 5 yr are permitted on fields producing foundation and certified seed, respectively. Foundation seed must be produced above 40° N lat.

WL 323 was favorably reviewed by the National Alfalfa Variety Review Board in January 1992. Application will not be made for U.S. plant variety protection.