REGISTRATION OF CROP CULTIVARS

Genetics, and Dep. of Plant Pathology, respectively, Univ. of Minnesota for their guidance in Phytophthora screening procedures and for providing cultures of the causal organism.

REGISTRATION OF ATLAS ALFALFA¹
(Reg. No. 109)

J. B. Moutray and J. R. Thomas²

‘ATLAS’ alfalfa (Medicago sativa L.) was developed by North American Plant Breeders at Ames, Iowa. The experimental designation was NAPB 41.

Atlas is a 1407-clone cultivar with parentage tracing about equally to: 1) Northern hardy types predominately ‘Titan’, ‘Vernal’, and ‘Weevlchek’; and 2) Flemish types predominately ‘Anchor’ and ‘Saranac’. Several selections were made also from other sources including Beltsville 1-An4, 2-An4 and 3-An4. Beginning in 1971, source materials were subjected to two and three cycles of greenhouse selection for resistance to anthracnose caused by Collectotrichum trifolii Bain followed by one cycle of field selection for resistance to bacterial wilt caused by Corynebacterium insidiosum (McCull) H. L. Jens. In addition to a resistant reaction to bacterial wilt, final selections were chosen on the basis of topgrowth, root and crown size and fall dormancy. Seed was produced in the greenhouse at Ames, Iowa with pollination by leafcutter bees [Megachile rotundata (F.).]

Atlas is similar in fall dormancy to Saranac. Atlas has resistance to bacterial wilt (similar to Vernal), anthracnose and Fusarium wilt caused by Fusarium oxysporum Schlecht f. sp. medicaginis (Weimer) Snyd. and Hans. Atlas is susceptible to Phytophthora root rot caused by Phytophthora megasperma Drechs. Atlas has been tested throughout the North Central region, and 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 Atlas. There is no restriction on the area of production of foundation or certified seed.

Atlas was favorably reviewed by the National Certified Alfalfa Variety Review Board in 1976. A plant variety protection certificate was issued in January 1982.

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.

¹ Registered by the Crop Sci. Soc. of Am. Accepted 20 Sept. 1982.
² Director of Forage Research, North American Plant Breeders, R. R. #3, Ames, IA 50010, and former research director, North American Plant Breeders (now self employed), respectively.

REGISTRATION OF VANGARD ALFALFA
(Reg. No. 111)

J. B. Moutray²

‘VANGARD’ alfalfa (Medicago sativa L.) was developed by North American Plant Breeders at Ames, Iowa. The experimental designation was NAPB 42. It was merchandised with name conflict necessitated a change.

Vanguard is a 77-clone synthetic cultivar with about 85 percent to the Beltsville releases MSB-CW5-AN3 with the cultivars ‘Kanza’, ‘Dawson’, ‘Weevlchek’, and ‘Olympic’. In 1971, source materials were subjected to two greenhouse selection for resistance to anthracnose caused by Collectotrichum trifolii Bain. Thirty-three percent of the parentage also contributed about 15 percent of the germplasm. In 1971, source materials were subjected to two greenhouse selection for resistance to anthracnose caused by Collectotrichum trifolii Bain.

In addition to a resistant reaction anthracnose, final selections were chosen on the basis of topgrowth, root and crown size and fall dormancy. Seed was produced on cuttings in field isolation with pollination by honeybees [Apis mellifera L.].

Vanguard is similar in fall dormancy to ‘Saranac’. Vanguard has a high level of resistance to anthracnose (similar to ‘Are’), resistance to bacterial wilt (similar to Vernal), resistance to Phytophthora root rot caused by Phytophthora megasperma Drechs. Vanguard has been tested for forage yield throughout the central and southeastern regions and 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 Vanguard. There is no restriction on the area of production of foundation or certified seed.

Vanguard was favorably reviewed by the National Certified Alfalfa Variety Review Board in 1976. A plant variety protection certificate was issued in March 1981.

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.