REGISTRATION OF CROP CULTIVARS

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 ‘Weevichek’; 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 Colletotrichum 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 top-growth, 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.
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REGISTRATION OF OLYMPIC ALFALFA¹
(Reg. No. 110)

J. B. Moutray³

‘OLYMPIC’ alfalfa (Medicago sativa L.) was developed by North American Plant Breeders at Ames, Iowa. The experimental designation was NAPB 43.

Olympic is a 932-clone cultivar with parentage tracing predominately to: 1) Flemish types (37%), ‘Anchor’, ‘Tempo’, ‘Sar- anac’; 2) central types (33%), ‘Kanza’, ‘Dawson’, ‘Cody’; and 3) hardy types (30%), ‘Titan’, ‘Weevichek’, and ‘Vernal’. Beginning in 1971, source materials were subjected to three cycles of greenhouse selection for resistance to anthracnose caused by Colletotrichum trifolii Bain. Thirty-three percent of the parentage also was subjected to one cycle of field screening for resistance to bacterial wilt caused by Corynebacterium insidiosum (McCull) H. L. Jens. Breeder seed was produced as follows: 1) Flemish and hardy types, in a field isolation plot, were interpollinated by honeybees (Apis mellifera L.); 2) central types were interpollinated in a greenhouse by leafcutter bees [Megachile rotundata (F.)]; and 3) the two seed sources were blended.

Olympic is similar in fall dormancy to Saranac. Olympic has resistance to bacterial wilt (similar to ‘Vernal’), anthracnose and Fusarium wilt caused by Fusarium oxysporum Schlecht f. sp. medicaginis (Weimer) Snyd. and Hans. Olympic is susceptible to Phytophthora root rot caused by Phytophthora megasperma Drechs. Olympic has been tested for forage yield throughout the central and mid-Atlantic areas 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 Olympic. There is no restriction on the area of production of foundation or certified seed.

Olympic 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.

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