Registration of ‘ABT 805’ Alfalfa

‘ABT 805’ alfalfa (Medicago sativa L.) (Reg. no. CV-194, PI 594913) was developed by the Georgia Agricultural Experiment Stations and released in January 1996. It was tested experimentally as GA-FL77-S2.

ABT 805 is a synthetic cultivar with 90 parent clones. The parents were selected from Florida 77-S (1) after screening for survival under intense grazing pressure with continuous stocking by beef cattle (Bos taurus) for two summers in Georgia. Germplasm sources are unknown (100%).

Fall dormancy of ABT 805 is similar to that of ‘Moapa 69’. Flower color of the Syn 1 generation is approximately 86% purple and 14% variegated. ABT 805 has high resistance to fusarium wilt [caused by Fusarium oxysporum Schlechtend.; Fr. f. sp. medicaginis (J.L. Weimer) W.C. Snyder & H.N. Hans.] and southern root-knot nematode [Meloidogyne incognita (Kofoid & White) Chitwood]; resistance to phytophthora root rot [caused by Phytophthora sojae M.J. Kaufmann & J.W. Gerdemann; syn. P. medicaginis (Drechs.), E.M. Hans. & Maxwell] and spotted alfalfa aphid [Theroaphis maculata (Buckton)]; moderate resistance to anthracnose (Race 1) (caused by Colletotrichum trifolii Bain & Essary), bacterial wilt [caused by Clavibacter michiganense subsp. insidiosum (McCulloch) Davis et al. 1984], verticillium wilt (caused by Verticillium albo-atrum Reinke & Berthier), and stem nematode [Ditylenchus dipaci (Kühn) Filipjev]. It has not been tested for reaction to aphanomyces root rot (Race 1) (caused by Aphanomyces euteiches Drechs.), pea aphid [Acyrthosiphon pisum (Harris)], or blue alfalfa aphid (Acyrthosiphon kondoi Shinji).

ABT 805 appears to be adapted to and is intended for use in the southeastern region of the USA for grazing, hay, silage, and dehy production. It has been tested in Georgia and southern California. After intensive grazing in Tifton, GA, plant survival for ABT 805 was 85%, compared with 72% for Alfagraze, 33% for ‘Preme’, 31% for Rio and ABI 700, 28% for Florida 77-Nitro, 18% for CUF 101, and 8% for WL 457 (2, and J.H. Bouton and R.N. Gates, unpublished data, 1995).

Seed increase is limited to one generation of breeder and two generations each of foundation (Syn 2, Syn 3, Syn 4) seed classes. A 1-, 3-, and 5-yr stand life is permitted on fields producing breeder, foundation, and certified seed classes, respectively. Foundation seed production outside of certified seed producing regions, is limited to 1 yr (non-overwintering) unless field inspected and approved by the breeder to allow 2 yr of foundation seed production. Breeder seed was produced in 1992.

ABT 805 was favorably reviewed by the National Alfalfa Review Board in January 1996. No decision has been made concerning U.S. plant variety protection.

References and Notes


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Registration of ‘Graham’ Soybean

‘Graham’ soybean [Glycine max (L.) Merr.] (Reg. no. CV-352, PI 594922) was developed by the USDA-ARS, in cooperation with the North Carolina Agricultural Research Service and the South Carolina Agricultural Experiment Station. It was released in 1996 to provide a highly productive Maturity Group (MG) V cultivar. It matures approximately 4 d later, averages 15.3 cm tall, and has produced 10% higher seed yield than Essex in full-season plantings. In North Carolina, Graham is well adapted to most growing regions. Lodging resistance is similar to ‘Hutcheson’ (7). Graham has purple flowers, gray pubescence, and a determinate growth habit. Seeds are dull yellow with buff hilum averaging 15.9 g 100 seeds-1. The buff hila of Graham are less sensitive to environmental conditions than most cultivars and can range from light to dark buff on the same plant. Seedling oxidase is negative (8). Seed oil and protein content averaged 214 and 398 g kg-1 seed, compared with 204 and 425 g kg-1 seed for Essex.

Graham is resistant to soybean mosaic virus (9). It is susceptible to frogeye leaf spot (caused by Cercospora sojina syn. C. daizu Miura) (10). It is susceptible to both crops of glycines leukonoe [caused by Phaseolus vulgaris phytophthora root rot (Race 1)] (11)). The soybean cyst [caused by Heterodera glycines (Neal) Chitwood], root-knot nematodes [Meloidogyne incognita (Kofoid & White) Chitwood and M. arenaria (Nees)] (12), and it is also very susceptible to stem canker (caused by Diaporthe phaseolorum (Cooke & Ellis) Sacc. var. caudivora (13)).