REGISTRATION OF CROP CULTIVARS

REGISTRATION OF ‘ALENE’ KENTUCKY BLUEGRASS

‘ALENE’ Kentucky bluegrass (Poa pratensis L.), Reg. no. 28, was developed by the University of Idaho Agricultural Experiment Station. The cultivar was derived from three generations of maternal line selection from germplasm introduced from southwestern Europe and was tested experimentally as ID. Sel. 39. During each generation, more than 50 plants were examined for outstanding plant type, leaf color, seed productivity, and other desirable seed and turf characteristics were selected.

Alene is a vigorous, rhizomatous, perennial turf-type with rapid 10-day seedling emergence and tillering equal to ‘Argyle’ and ‘Baron’. It has excellent resistance to stem rust (caused by Puccinia graminis Pers., subsp. graminicola Urban), moderate resistance to leaf rust (caused by Puccinia recondita Rob. ex. Deson.), pink snow mold [caused by G. nivalis (Ces. ex Sacc.) W. Gams and E. Muller], gray snow mold [caused by T. incarnata (Lasch ex Fries)], and leafspot [caused by Drechslera poae (Baudys.) Shoem]. Alene has high quality turf with medium texture and density, a medium green color, and turf quality characteristics that equal or exceed ‘Kenblue’, ‘South Dakota’, and Argyle. The cultivar also has good survival after submitted to low temperatures.

Spaced plants of Alene are relatively tall, averaging 94.7 cm, erect, possess strong plant vigor, dark green basal and culm leaves, and exhibit tolerance to lodging. Seed maturity is early to medium and therefore similar to Kenblue and Argyle, but 10 days earlier than Baron. Alene reaches 50% anthesis at the 149th Julian day, which is earlier than Baron and South Dakota, equal to Argyle, but 4 days later than Kenblue. The plants have distinctive large (11.9-cm length) pyramidal, slightly nodding panicles with intermediate open branches. Alene has an average of 259 spikelets per panicle with medium seed size and weight. This exceeds other cultivars tested. The cultivar is 90 to 95% apomictic.

In a 5-yr seed study (1, 2) on nonirrigated Palouse-Latahco silt loam soils of northern Idaho, Alene was second to Argyle in seed yield, of 620 vs. 736 kg/ha, respectively. This was 27, 16, and 13% greater seed yield than South Dakota, Baron, and Kenblue, respectively.

Alene produces excellent seed yields on the Palouse-Latahco silt loam nonirrigated soils in the wheat (Triticum aestivum L.)-pea (Pisum sativum L.) area of northern Idaho and eastern Washington. The cultivar produces an excellent sod and turf for the cool-season area of the USA and Canada either as a monoculture or as a blend with other bluegrasses.

Breeders seed, as produced by the Idaho Agricultural Experiment Station, will be available in 2 kg bags. Application has been submitted that will specify Alene to be sod and turf for the cool-season area of the USA and Canada.

REFERENCES AND NOTES


3. Agronomist and professor, Dep. of Plant, Soil, and Entomological Sci., Univ. of Idaho, Moscow, ID 83843. Published with approval of the director of the Univ. of Idaho Agric. Exp. Stn. as research paper 8677. Registration by the Crop Sci. Soc. of Am. Acepted 30 July 1986.

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REGISTRATION OF ‘ACALA 1517-SR2’ COTTON

‘ACALA 1517-SR2’ cotton (Gossypium hirsutum L.) (Reg. no. E1137) was released by the New Mexico Agricultural Experiment Station in 1986. Plant-to-row selection primarily for storm-resistance for several generations resulted in strain E1137. This strain was released as Acala 1517-SR2 in 1989. Acala 1517-SR2 originated as a single F_2 plant from a cross between ‘Acala 1517-E1’ and an unknown storm-resistant source and has the same pedigree as strain ‘SR1’ (1). Parents of Acala 1517-E1 were Acala 3080 and Pee Dee 2165 (2).

Plants of Acala 1517-SR2 are about the same height as those of Acala 1517-SR1, averaging 76 cm. Plants of Acala 1517-SR2 are narrower than the picker-type Acala cultivars because of shorter sympodial branches. Lint percentage of Acala 1517-SR2 is earlier than Acala 1517-SR1, as measured by early bloom and open boll counts. Acala 1517-SR2 has higher lint yields than Acala 1517-SR1 in the Pecos valleys of New Mexico in 4 yr of testing.

Acala 1517-SR2 has resistance similar to that of Acala 1517-SR1 for verticillium wilt (caused by Verticillium Klab.), races 1, 2, and 10 of bacterial blight (caused by Xanthomonas campestris pv. malvacearum (Smit. ex Klab.) Kleb.), rusts, and leaf blights. It also has resistance to Fusarium oxysporum f. sp. fusarium wilt [caused by Fusarium oxysporum f. sp. fusarium wilt (Atk.) Snyd. and Hans.], which is resistance similar to that of Acala 1517-SR1 for verticillium wilt.

Bolls of Acala 1517-SR2 are ovate, averaging 5.90 g compared to Acala 1517-SR1 with 5.90 g. Fiber length and uniformity of Acala 1517-SR2 are similar to those of Acala 1517-SR1, averaging 29 mm and 50% for fiber uniformity ratio, respectively. Lint percentages of Acala 1517-SR2 and Acala 1517-SR1 have averaged 245 kN m kg^{-1}, compared with 239 kN m kg^{-1} for Acala 1517-SR1. Fiber strength, as measured on the 3.18-mm gauge stellometer, averaged 0.2 units higher than for Acala 1517-SR1. Micronaire averaged 0.2 units higher than for Acala 1517-SR1. Storm-resistance ratings have averaged 5.8 for Acala 1517-SR2, compared with 4.3 for Acala 1517-SR1.

Breeder seed will be maintained by the New Mexico Agricultural Experiment Station in 1986. Plant-to-row selection primarily for greater storm-resistance for several generations resulted in strain E1137. This strain was released as Acala 1517-SR2 in 1989.