Tidewater provides a well-adapted, high-yielding, early-maturing alternative to the six-rowed winter feed barley cultivars currently available for production in the Middle Atlantic region. It heads as early as Sussex, and 2 to 3 d earlier than Henry and Wysor. Tidewater is semiprostrate in winter growth habit, and has exhibited excellent winter survival characteristics in this region. Test weight of Tidewater is medium (averaging 55.5 kg hL\(^{-1}\)), similar to Henry, Wysor, and Sussex at Middle Atlantic locations. It has medium to short plant height (<95 cm), and good standability in most years and locations.

Tidewater is characterized by awnless to awnletted six-rowed spikes with glabrous glumes that are tan-colored at maturity. Average spike length is 44 mm. Kernels have sharply pointed beaks and are small to medium in size, with a mean 1000-kernel weight of 21 g.

Tidewater is moderately resistant to races of leaf rust (incited by *Puccinia hordei* G. Otth.) that occur in the Middle Atlantic region. It is moderately susceptible to powdery mildew (incited by *Erysiphe graminis* DC. ex Merat f. sp. *hordei* Ém. Marchal), net blotch (incited by *Pyrenophora teres* Drechs.), and scald (incited by *Rhynchosporium secalis* (Oudem.) J.J. Davis).

Breeder seed of Tidewater will be maintained by the Maryland Agricultural Experiment Station through the Department of Agronomy, University of Maryland, College Park, MD 20742. Classes of seed are foundation, registered, and certified. Seed of the certified classes will be maintained by the Maryland Crop Improvement Association, P.O. Box 169, Queenstown, MD 21658. Plant Variety Protection will not be sought for this cultivar.

D. J. SAMMONS* (1)

REGISTRATION OF 'ACALA 1517-SR3' COTTON

‘ACALA 1517-SR3’ COTTON (*Gossypium hirsutum* L.) (Reg. no. CV-100, PI 559910) was developed and released by the New Mexico Agricultural Experiment Station in 1990. It originated as a single-plant selection from a cross between ‘Acala 1517-E1’ (1) and a storm-resistant source. It has the same pedigree as ‘Acala 1517-SR2’ (2), with several years of additional selection for verticillium wilt (*Verticillium dahliae* Kleb.) tolerance. It was tested as strain E3134 in multi-location trials in New Mexico from 1986 to 1989, and entered in the Western Regional Cotton Variety test in 1990.

The plant height and plant type of Acala 1517-SR3 are similar to those of Acala 1517-SR2, as measured by early bloom and open boll counts. Acala 1517-SR3 is slightly less storm resistant (rating of 5.2, on a scale of 1 = lowest to 9 = highest) than Acala 1517-SR2 (rating 5.6).

Lint yields of Acala 1517-SR3 averaged 24% higher than those of Acala 1517-SR2 in New Mexico's Mesilla Valley and 19% higher in the Pecos Valley of New Mexico. Tolerance of Acala 1517-SR3 to verticillium wilt (rating of 1.5, on a scale of 1 = tolerant, to 5 = susceptible) was significantly better than that of Acala 1517-SR2 (rating 2.4). Acala 1517-SR3 is resistant to Races 1, 2, and 10 of bacterial blight, *Xanthomonas campestris* pv. *malvacearum* (Smith) Dye.

Bolls of Acala 1517-SR3 are ovate and averaged 2.27 g of lint and boll weight, with 2.16 of Acala 1517-SR2. Fiber length (2.5% span) averaged 31.2 mm, which was not significantly different from that of Acala 1517-SR2. Fiber uniformity in Acala 1517-SR3 averaged 52.1%, equal to that of Acala 1517-SR2. Fiber strength, as measured on the 3.18-mm stelometer, averaged 230 kN m kg\(^{-1}\) for Acala 1517-SR3, compared with 223 kN m kg\(^{-1}\) for Acala 1517-SR2. Micronaire reading of Acala 1517-SR3 was not significantly different from that of Acala 1517-SR2.

Acala 1517-SR3 is adapted to the cotton growing areas of New Mexico and western Texas. Breeder seed will be maintained by the New Mexico Agriculture Experiment Station, Las Cruces, NM 88003-0003, in cooperation with the New Mexico Crop Improvement Association.


References and Notes

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References and Notes


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