REGISTRATION OF CROP CULTIVARS

REGISTRATION OF ACALA 1517-77
UPLAND COTTON1
(Reg. No. 77)

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‘ACALA 1517-77’ cotton (Gossypium hirsutum L.) was released by the New Mexico Agric. Exp. Stn. in 1977. It originated as a single plant selection from ‘Acala 1517-70.’ Acala 1517-77 was tested for 5 years as strain B3-1. The original plant selection was slightly atypical and appeared to have resulted from an outcross of Acala 1517-70 with a storm resistant type. The parents and development of Acala 1517-70 were described in 1978.3 The plants of Acala 1517-77 are about 5 cm shorter than Acala 1517-70. The plant shape is narrower than that of Acala 1517-70, due to shorter sympodial branches.

Bolls of Acala 1517-77 are narrowly ovate and average 6.4 g of seed cotton, compared with 7.0 g for Acala 1517-70. Seeds are quite fuzzy and medium-large, and the lint percentage averages 35 to 37 for hand-picked samples, compared with 36 to 38 for Acala 1517-70. Seed index averages about 13, the same as for Acala 1517-70.

Acala 1517-77 produces premium quality fiber averaging 30.5 mm in 2.5% span length, generally classing as 1-1/8 in. staple. Fiber uniformity index of Acala 1517-77 averages 2.0 to 2.5 units higher than that of Acala 1517-70. Micronaire of Acala 1517-77 and Acala 1517-77 averaged nearly the same over 5 years of testing. Fiber strength as measured on the digital fibrograph and fiber elongation are higher in Acala 1517-77 than in Acala 1517-70, by 6% and 17%, respectively. Yarn strength (miniature spinning 22’s) of Acala 1517-77 averaged 147 grams force per tex, compared with 141 for Acala 1517-70.

Acala 1517-77 is moderately tolerant to Verticillium albo-astrum Reinke and Berth and resistant to races 1 and 2 of bacterial blight caused by Xanthomonas malvacearum (E. F. Smith) Dows. The cultivar is mildly tolerant to Fusarium wilt caused by Fusarium oxysporum f. sp. vasinfectum (Atk.) Syny. and Hans.

Bolls of Acala 1517-77 have slight storm resistance, and there is less stringing of the seed cotton during adverse weather.

Over the 5 years of testing, Acala 1517-77 showed an average yield advantage of 13% over Acala 1517-70. During the same period, Acala 1517-77 produced 5% more yield than ‘Acala 1517-75.’ The earliness of Acala 1517-77 compared with Acala 1517-70 gave 10% more of the total crop at first picking.

Breeder seed will be maintained by the New Mexico Agric. Exp. Stn.

REGISTRATION OF NEW MEXICO VALENCIA C PEANUT1
(Reg. No. 24)

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‘NEW Mexico Valencia C’ is a Valencia-type peanut (Arachis hypogaea L.) with bunch growth habit. It was a single plant selection in New Mexico from P.I. 355987, introduced in 1967, one of the 40 lines selected from irradiated seeds from the ‘Manfredi’ at the Manfredi, Argentina Research Station and named and released by the New Mexico State Univ. Stn. in 1979.

N.M. Valencia C outproduced ‘N.M. Valencia A’ in 11 of 16 tests, averaging 6% higher yield from 1972 to 1975. N.M. Valencia C averaged 8% yield increase over ‘McRan’ in 1978. N.M. Valencia C has nearly the same percentage of three seeded pods (66%) as N.M. Valencia A, but a higher shelling percentage (76%) than the other two cultivars (both measuring 47 g/100 seed) and a higher shelling percentage (76%) than N.M. Valencia A (69%) and McRan (65%). It has a hard shelled, dark reddish brown color which is favored by processors. A McMinnville, Oregon breeding program began in 1978 to develop a late-maturing Valencia-type peanut from which N.M. Valencia C was selected.

Breeder seed will be maintained by the New Mexico Agric. Exp. Stn.

1 Registered by the Crop Sci. Soc. Am. Journal article 728, Agricultural Experiment Station, New Mexico State Univ., Las Cruces, NM 88003. Accepted 15 Oct. 1979.
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