REGISTRATION OF ‘ARKOT 518’ UPLAND COTTON

‘ARKOT 518’ cotton (Gossypium hirsutum L.) (Reg. no. 91) (PI 510667) was developed at the Cotton Branch of the Arkansas Agricultural Experiment Station in Marianna, AR, and released 1 Apr. 1987. Arkot 518 originated as a single plant selection in the F3 and F4 generations of a cross between ‘Rex 713’ and ‘Coker 304’. The resulting F4 progeny row and subsequent generations were handled as a pure line and increased at Marianna.

Arkot 518 (tested as UArk 2402 or UArk 75182402) expresses excellent lint yield potential under Arkansas conditions and in certain other areas of the U.S. Rain Belt. Arkot 518 matures earlier than other cultivars currently available in Arkansas; reaching 60% open bolls from 2 to 9 d earlier than all other cultivars evaluated in the 1984 and 1985 Arkansas Cotton Cultivar Tests. Fiber of Arkot 518 usually is longer than other mid-South cultivars and is equal to that of ‘Coker 315’. Fiber strength of Arkot 518 is similar to that of ‘Stoneville 213’. Micronaire is usually within the premium range and is similar to that of other cultivars in production (1,2).

Arkot 518 has a more open-canopy growth habit than most ‘Deltapine’ and ‘Stoneville’ cultivars commonly produced in Arkansas because of longer main stem internodes. The large bolls and bracts of Arkot 518 most closely resemble ‘Delcot 390’ in the mature green boll stage. Pubescence of stems and leaves is similar to Stoneville 213 and Rex 713.

Based on 1986 results, Arkot 518 carries resistance to Fusarium wilt [caused by Fusarium oxysporum Schlect f. vasinfectum (Atr.) Snyd. & Hans.] similar to that of Coker 315 and ‘Deltapine 50’. Its reaction to Verticillium wilt (caused by Verticillium dahliae Kleb.) has not been quantified, but it has yielded well at Clarkdale, AR under moderate levels of field infestation.

Seed of Arkot 518 may be obtained from the Arkansas Agricultural Experiment Station.

C. WAYNE SMITH (3)

Reference and Notes


REGISTRATION OF ‘ACALA 1517-88’ COTTON

‘ACALA 1517-88’ cotton (Gossypium hirsutum L.) (Reg. no. 93) (PI 511354) was released by the New Mexico Agricultural Experiment Station in 1987. It originated as a selection from a cross between ‘Acala 1517’ and ‘Deltapine 70’. Plant-to-row selection for extra fiber-strength genes from triple hybrid origin that produced yields equal to that of commercial cultivars of the South Carolina (2). The major advantages of ‘ACALA 1517-88’ include wider adaptation, higher lint yield potential, higher yarn tenacity, and fewer neps.

Compared with PD-1, PD-3 shows increased resistance to fusarium wilt caused by Fusarium oxysporum Schlect f. vasinfectum (Atk.) Snyd. & Hans. and Meloidogyne incognita (Kofoid & White). Preliminary observations suggest increased resistance to verticillium wilt, caused by Verticillium dahliae Kleb.

PD-3, compared with PD-1, has shorter internodes, greener leaves, and is equal to or taller in plant height. Micronaire of PD-3 is shorter than PD-1, has shorter internodes, dark green leaves, and is equal or taller in plant height. Lint yield potential of PD-3 over PD-1 are attributed to increased lint percentage, boll size, seed size, square meter, and micronaire are similar.

Breeder seed will be maintained by the New Mexico Experimental Station, Pee Dee Res. and Educ. Ctr., Rt. 1, Box 531, Florence, SC 29501-9603.

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