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.

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Reference and Notes

4. T.W. Culp and R.F. Moore, USDA-ARS, P.O. Box 29503; L.H. Harvey, Dep. of Agronomy, Clemson, SC 29631; J.B. Pitner, retired (formerly Clemson Education Ctr., Florence, SC 29503). Cooper. USDA-ARS and the South Carolina Agric. Experiment Station no. 2736 of the South Carolina Agric. Experiment Station by the CSSA. *Corresponding author.

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