REGISTRATION OF PENNQUAD BUCKWHEAT
(Reg. No. 1)
H. G. Marshall

‘PENNQUAD’ buckwheat (Fagopyrum sagittatum Gilib.), C.I. 16, Pa. 84, is an autotetraploid (2n = 32) variety which originated from a few seeds obtained during 1959 from McGill University, Montreal, Canada; and these were part of an original introduction from USSR. The initial average maturity was late, and selection pressure against this characteristic was applied through early harvest of small isolated observation and seed increase plots from 1960 through 1962.

Pennquad is a naturally cross-pollinated variety. Distinguishing morphological characteristics are as follows: Plants are tall but similar in height to that of available diploid buckwheats; thick, dark green leaves compared to available diploids; stems are thick and red in color, but characteristically turn dark brown with ripening; flowers are large, white and dimorphic; seeds are uniformly large and angular and approach the Japanese type in these characteristics; predominant seed color is gray with black mottling but occasional seeds are almost completely black.

Pennquad is the first tetraploid variety released for production in the United States, and is adapted to Pennsylvania and areas with similar climatic conditions. In Pennsylvania tests conducted during 1963 through 1966, it was superior to the check variety ‘Tokyo’ for yield and lodging resistance. Since Tokyo (a diploid) is the only other buckwheat variety of which founda-
tion seed is maintained, Pennquad provides the producer with a choice of varieties for his conditions.

Pennquad was released in 1966 under cooperative agreement by the Pennsylvania Agricultural Experiment Station and the Crops Research Division, Agricultural Research Service, U. S. Department of Agriculture. The Pennsylvania Agricultural Experiment Station will maintain breeder seed.

REGISTRATION OF AUBURN M COTTON
(Reg. No. 52)
W. P. Sappenfield

‘AUBURN M’ (Gossypium hirsutum L.) (1) is an extra-early, quick-fruiting variety having short internodes and nearly semi-smooth leaves. It is very resistant to the Verticillium wilt-knot nematode disease complex. It is resistant to Verticillium albo-atrum Reinke and Berth and bacterial blight caused by Xanthomonas malvacearum (1) Dows.

Comparative yields, boll, seed, and fiber qualities for Auburn M and other commercial varieties grown in Southeast Missouri trials are given in Table 1.

In Southeast Missouri Auburn M has produced high yields on sand, sandy loam, loam, and clay soils. Growth of the variety is extra-early; it has performed especially well on soil types in later-than-normal plantings or when replantings were necessary. When planted after May 10 in Southeast Missouri its growth habit usually has been modified. When the variety was planted too early and fruiting was too rapid plants often became weak-stalked and premature.


(2) Registered by the Crop Science Society of America. Cooperative investigations of the Missouri Agricultural Experiment Station and Crops Research Division, ARS, USDA. Conceived by the Missouri Agricultural Experiment Station. June 3, 1957. Approved by the Director. Received December 5, 1957.

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