Registration of Crop Varieties

REGISTRATION OF COBAL COTTON[1]

(Reg. No. 42)

E. N. Duncan and J. B. Pate[2]

'COBAL' cotton (*Gossypium hirsutum* L.) was selected by D. M. Simpson in 1942 at Knoxville, Tennessee, from a segregating population of 'Coker 33–12' × 'Ballard 136'. The parents are early maturing non-commercial strains. Coker 33–12 is a small boll prolific strain while Ballard 136 is a large boll nonprolific strain from the Stoneville 2 variety. Early selection pressure for the Ballard 136 biotype resulted in a strain, T-416, very similar to the 'Empire' variety though somewhat earlier. This strain was released in 1950 as Cobal.

The Cobal plant is bushy in appearance, medium in height, with moderately lobed, slightly cupped leaves of medium size allowing more than average light penetration. Cobal fruits rapidly and matures early. The bolls are large, oval-blunt, well fluffed upon opening, and are easily picked by hand or machine with little field loss. Grades of machine picked Cobal have compared favorably with other varieties produced under similar conditions.

Comparative agronomic and fiber characteristics of Cobal and certain other varieties are summarized in Table 1. Cobal is similar in most respects to Empire. It is well adapted to wilt-free areas of North Carolina, North Alabama, North Mississippi, and Tennessee.

Cobal was developed and released by the Tennessee Agricultural Experiment Station and the Cotton and Cordage Fibers Research Branch of CRD, ARS, USDA, cooperatively. Maintainence of seed stocks remains with the breeders and periodically breeder seed is supplied to the Tennessee Seed Producers, Inc., Nashville, Tennessee for increase and distribution.

[1] Registered under a memorandum of understanding between the Crops Research Division, ARS, USDA, and the American Society of Agronomy. Cooperative investigations of the Crops Research Division, ARS, USDA, and the Tennessee Agricultural Experiment Station. Received Feb. 14, 1964.

[2] Research Agronomists, Crops Research Division, ARS, USDA, Knoxville, Tennessee.

Table 1. Comparative agronomic and fiber properties of 5 cotton varieties grown in 17 Tennessee yield tests in 1958–1960.

Variety	Lint yield lb./A.	Lint percent	Bolls per lb. seed cotton	Earliness index*	Fiber length		Fiber strength T_1	Fiber fineness Mic.
					Classers' 32's in.	U. H. M in.		
Cobal	807	35.8	58	108	34	1.14	1.83	4.19
Pope	948	39.3	67	111	33	1.05	1.84	4.33
Deltapine 15	812	38.4	71	88	34	1.11	1.84	4.42
Empire W. R.	805	36.1	53	97	34	1.12	1.77	3.96
Fox 4	890	36.7	68	100	34	1.12	1.86	4.84

* Calculated by expressing the yield at 1st picking as a percentage of the yield of Fox 4 at 1st picking.

REGISTRATION OF POPE COTTON[1]

(Reg. No. 43)

E. N. Duncan and J. B. Pate[2]

'POPE' cotton (*Gossypium hirsutum* L.) was selected by D. M. Simpson and E. N. Duncan in 1948 from a segregating population of ('Coker 33–12' × 'Acala 5675') × 'Acala 5675'. The two parents are noncommercial longtime selfed lines breeding stocks. Coker 33–12 is a small boll, early, prolific strain while Acala 5675 is a large boll medium late strain with superior fiber properties.

Following 6 generations of selfing and selecting for earliness, prolificacy, and fiber quality, 2 strains, T-89 and T-92, were increased for testing. After 3 years of field and laboratory tests it was concluded that there were no real differences between the 2 strains, and they were combined for further increase and release as the Pope variety in 1956.

The Pope plant is in general cylindrical in shape and somewhat vegetative with small semi-cupped leaves. The bolls are small, oval-slightly pointed, and well fluffed when open. The cotton is loosely held in the burr making it easily picked by hand or machine. Appreciable field loss is experienced if machine picking is delayed after 50% of the crop is open. Pope foliage is considerably less pubescent than average cottons which may result in higher than average grades when machine picked. Under conditions of high fertility and high plant populations lodging may be moderate to severe; however, following opening the plants become more erect.

Comparative agronomic and fiber characteristics of Pope and certain other varieties are summarized in Table 1 under Cobal variety. It is well adapted to wilt free areas of North Carolina, North Alabama, North Mississippi, and Tennessee.

Pope was developed and released by the Tennessee Agricultural Experiment Station and the Cotton and Cordage Fibers Research Branch of CRD, ARS, USDA, cooperatively. Maintenance of seed stocks remains with the breeders and periodically breeder seed is supplied to the Tennessee Seed Products, Inc., Nashville, Tennessee, for increase and distribution.

[1] Registered under a memorandum of understanding between the Crops Research Division, ARS, USDA, and the American Society of Agronomy. Cooperative investigations of the Crops Research Division, ARS, USDA, and the Tennessee Agricultural Experiment Station. Received Feb. 14, 1964.

[2] Research Agronomists, Crops Research Division, ARS, USDA, Knoxville, Tennessee.

REGISTRATION OF PLAINS COTTON[1]

(Reg. No. 44)

Albert L. Smith[2]

'PLAINS' cotton, *Gossypium hirsutum* L., was developed by the author from a cross of 'Clevewilt 6' × 'Stoneville 2B' in 1936 with one backcross to Stoneville 2B in 1937. The variety is a product of cooperative cotton breeding investigations of the Alabama and Georgia Agricultural Experiment Stations and the Crops Research Division, U. S. Department of Agriculture. The variety was largely developed in Georgia but was moved to Alabama in 1946,

[1] Registered under a memorandum of understanding between the Crops Research Division, ARS, USDA, and the American Society of Agronomy. Received Mar. 19, 1964.

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