

AZ 64 - A NEW COTTON VARIETY FOR ARIZONA

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AZ 64, a cotton that combines yield and quality of fiber, has been released by the Arizona Agricultural Experiment Station for farmers to grow in 1972. As compared to commercial varieties grown in Arizona, AZ 64 has a higher gin turnout (lint percent), has a stronger fiber, and possesses exceptional seedling vigor. The plant type of AZ 64 can be characterized as sturdy, upright, and close fruited so as to be well-suited for spindle picking but is not a cluster type cotton. The yield and staple length of AZ 64 is comparable to that of Deltapine 16; however, it is slightly taller, and takes a few days longer to mature bolls.

Because of its seedling vigor, AZ 64 has an advantage over other varieties in early plantings in the state or where stand establishment is a problem. AZ 64 cannot be recommended as the variety to grow where the Verticillium wilt problem is severe nor in high plant populations, as the plants have a tendency to grow tall particularly if the soil fertility is very good.

AZ 64 combines the best of several varieties; viz., Acala, Triple Hybrid, Earlistaple, Lankart 57, Sealand, and Hopicala.

The production performance on which the release is based is summarized in the following tables:

Yield and Fiber Properties  
AZ 64 and Deltapine 16

Year and Location	Variety	Yield lbs/acre	Lint %	Fiber Properties		
				Length UHM	Strength 1/8 Pressley	Micronaire
Average (11 tests)	AZ 64	1164	38.4	1.11	3.59	4.83
	Deltapine 16	1138	36.3	1.10	3.12	4.84
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1969 Yuma	AZ 64	1431	39.8	1.08	3.41	4.77
	Deltapine 16	1204	37.5	1.06	3.18	4.97
Phx.	AZ 64	1513	38.0	1.10	3.68	5.09
	Deltapine 16	1350	36.0	1.12	3.16	4.82
1970 Phx.	AZ 64	714*	37.1	1.14	3.59	4.81
	Deltapine 16	804*	35.8	1.11	3.09	5.17
Marana	AZ 64	993*	39.1	1.10	3.70	4.53
	Deltapine 16	885*	35.5	1.09	3.22	4.29
1971 Phx.	AZ 64	1581*	37.8	1.14	3.58	4.93
	Deltapine 16	1629*	36.6	1.10	2.97	4.95

\* average of 3 tests

Spinning Tests  
AZ 64 and Deltapine 16

Year	Variety	Strength		Break Factor	Length		Appearance	
		22's	50's		2.5%	U.I.	Staple	Index
Average	AZ 64	125	45	2504	1.12	47	1 3/32	115
(3 tests)	Deltapine 16	112	40	2240	1.16	45	1 3/32	112
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1968	AZ 64	121	44	2431	1.13	48	1 3/32	115
	Deltapine 16	107	38	2127	1.16	45	1 1/16	105
1970	AZ 64	126	45	2511	1.10	48	1 3/32	110
	Deltapine 16	108	39	2163	1.16	46	1 1/8	110
1971	AZ 64	129	46	2569	1.12	46	1 1/8	120
	Deltapine 16	121	44	2431	1.18	45	1 3/32	120

COTTON REPORT - 1971  
Lee S. Stith and Warner D. Fisher

The 1971 cotton yields were again far below the long-time average. July temperatures almost equalled the record high of 1970. Excessive rainfall in August and September in Yuma and the southern part of Pinal counties greatly handicapped growers in those areas. An unusually early killing frost late in October greatly reduced a promising top crop in many areas. In spite of these adversities some growers reported exceptionally good yields. The crop at the Cotton Research Center was the best since the station was established in 1955. Pollen sterility, which was extreme in late July 1970, was practically non-existent in 1971.

Crop Maturity

Each year at the Cotton Research Center certain plots have been hand picked at two-week intervals starting September 1 in order to chart the maturity distribution of the crop. This distribution for the past four years is summarized in Table 1.