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**Cotton Varieties**  
in the  
**Hill Section of Mississippi**  
**1945**

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# COTTON VARIETIES IN THE HILL SECTION OF MISSISSIPPI

By J. F. O'KELLY

The field plot data for these tests were collected by S. P. Crockett, H. A. York, and T. E. Ashley at their respective stations.

The 1945 weather conditions were largely unfavorable for cotton production. A cold, wet planting period caused delayed planting, poor germination, and in some cases tests had to be planted over. Only at Holly Springs did yields approach satisfactory levels.

Because of the unfavorable weather results from the tests were more variable

than usual. This again emphasizes the wisdom of studying the averages when trying to evaluate a variety. The current year's results have much of interest but never should be accepted as final.

The lint prices used for the three grades and for the several staple lengths, are averages for 10 weeks of the marketing season. Seed was valued at \$52.00 a ton regardless of length of staple or assumed grade. Because of this the total acre values for strict low middling and low middling grades are somewhat greater

Table 1. Cotton variety averages: Poplarville, 1941-1945.

Variety	Annual lint yields					Averages				
	1941	1942	1943	1944	1945	Pounds lint	Total value (2)	Staple length	Lint per-centage	Bolls per lb. lint
Hi-Bred	511.6	278.0	345.3	610.5	446.9	438.5	97.77	27/32	42.5	176
Cleveland 54	487.9	290.0	363.8	513.5	282.3	387.5	91.56	29/32	37.2	219
Stoneville 5A	444.1	385.5	258.7	486.4	334.7	381.9	93.55	1	37.1	227
Miller	437.6	341.2	229.1	540.0	359.9	381.6	93.83	15/16	38.3	192
Deltapine 14	431.5	259.7	252.0	540.5	414.4	379.6	92.89	1 1/32	41.2	212
Bobshaw 1	457.5	349.7	280.8	418.1	316.7	364.6	89.14	1	36.8	226
Coker 100-9 (1)	486.8	274.6	204.1	455.6	398.6	363.9	93.46	1 3/32	38.0	210
Stoneville 2B	469.2	270.3	261.3	439.7	337.8	355.7	89.84	1 1/16	36.1	203
Delfos 9431 (1)	369.1	154.7	268.7	433.8	295.0	304.3	83.08	1 3/32	35.2	243
Delfos 531C	382.8	178.5	165.1	482.3	305.3	302.8	84.22	1 1/8	35.4	259
Boboak	372.0	175.0	253.7	448.3	217.9	293.4	75.99	1 1/16	33.7	263

(1) Data for a closely related strain were used for years before current strain was tested.

(2) Based on middling grade.

Table 2. Cotton varieties: Poplarville, 1945.

Variety	Pounds lint per acre	Total acre value			Length inches	Lint per-centage	Bolls per lb. lint
		Middling	Strict low middling	Low middling			
Hi-Bred	446.9	116.12	112.77	102.71	29/32	39.5	176
Empire	432.0	122.33	117.14	103.97	1 1/32	35.3	187
Deltapine 14	414.4	117.09	111.29	97.82	1 1/16	38.2	201
Coker 100-9	398.6	113.97	108.39	95.44	1 1/16	36.4	204
Miller	359.9	100.18	96.22	85.78	31/32	35.2	208
Stoneville 2B	337.8	96.68	92.63	82.33	1 1/32	33.9	207
Stoneville 5A	334.7	95.49	91.84	81.27	1 1/32	34.3	232
Coker 100W-4	331.1	94.46	90.49	80.39	1 1/32	34.3	221
Bobshaw 1	316.7	90.63	86.83	77.17	1 1/32	33.9	215
Delfos 531C	305.3	92.20	87.17	77.24	1 3/32	32.5	243
Delfos 9431	295.0	89.24	84.37	74.78	1 3/32	32.3	233
Cleveland 54	282.3	78.76	75.65	68.03	15/16	34.0	229
Bobdel	274.9	79.45	76.15	67.77	1 1/32	32.7	248
Delfos 050	270.2	77.39	74.15	95.91	1 1/32	33.8	221
Delfos 9169	233.6	67.92	64.65	57.06	1 1/16	34.1	204
Boboak	217.9	63.20	60.58	53.93	1 1/32	32.3	257

Table 3. Cotton variety averages: Holly Springs, hill soil, 1941-1945.

Variety	Annual lint yields					Averages				
	1941	1942	1943	1944	1945	Pounds lint	Total value (2)	Staple length	Lint per- centage	Bolls per lb. lint
Hi-Bred .....	568.2	735.2	368.6	413.3	719.0	560.9	122.38	27/32	43.2	162
Deltapine 14 .....	647.6	669.6	348.6	408.6	716.5	558.2	134.88	1 1/32	40.5	193
Miller .....	580.2	652.9	373.2	364.5	680.1	530.2	127.42	31/32	38.5	172
Stoneville 2B .....	548.3	737.5	320.1	437.1	541.4	516.9	130.67	1 1/16	36.2	195
Bobshaw 1 .....	569.7	789.7	327.8	362.2	534.1	516.7	126.11	1 1/32	37.0	207
Cleveland 54 .....	564.2	621.6	313.0	361.6	638.8	499.8	118.23	15/16	37.8	200
Stoneville 5A .....	549.3	635.5	341.6	347.1	578.6	490.4	122.15	1 1/32	37.1	213
Coker 100-9 (1) .....	495.4	621.2	311.7	347.4	557.3	466.6	121.03	1 3/32	38.4	203
Delfos 9431 (1) .....	526.3	665.1	298.4	345.8	480.6	463.2	121.83	1 3/32	35.7	225
Boboak .....	530.6	598.5	251.0	332.1	569.6	456.4	121.04	1 3/32	34.0	226
Delfos 531C .....	525.2	615.0	293.5	333.7	479.8	449.4	123.01	1 1/8	35.1	229

(1) Data for a closely related strain were used for years before current strain was tested.

(2) Based on middling grade.

Table 4. Cotton varieties: Holly Springs, hill soil, 1945.

Variety	Pounds lint per acre	Total acre value			Length inches	Lint per- centage	Bolls per lb. lint
		Middling	Strict low middling	Low middling			
Hi-Bred .....	719.0	177.62	176.18	161.80	7/8	42.6	132
Deltapine 14 .....	716.5	195.99	187.39	165.53	1 1/32	40.6	159
Empire .....	681.3	189.47	181.29	160.51	1 1/32	37.9	144
Miller .....	680.1	185.37	177.89	158.17	31/32	38.2	149
Cleveland 54 .....	638.8	172.39	165.36	148.11	15/16	38.6	166
Delfos 050 .....	628.9	180.58	171.78	151.34	1 1/16	35.8	166
Coker 100W-4 .....	603.5	173.90	165.45	145.84	1 1/16	35.3	177
Stoneville 5A .....	578.6	166.72	158.62	139.82	1 1/16	35.3	192
Bobdel .....	574.7	163.83	156.94	139.41	1 1/32	34.4	189
Boboak .....	569.6	170.01	160.61	142.10	1 3/32	34.0	193
Coker 100-9 .....	557.3	163.97	154.77	136.66	1 3/32	36.0	174
Stoneville 2B .....	541.4	159.63	150.69	133.10	1 3/32	35.7	166
Bobshaw 1 .....	534.1	153.46	145.98	128.63	1 1/16	35.7	175
Delfos 9169 .....	533.8	152.63	145.16	127.81	1 1/16	36.4	165
Delfos 9431 .....	480.6	139.94	133.22	117.60	1 1/16	33.9	199
Delfos 531C .....	479.8	144.31	136.39	120.80	1 3/32	33.0	190

Table 5. Cotton variety averages: Holly Springs, valley soil, 1942-1945.

Variety	Annual lint yields				Averages				
	1942	1943	1944	1945	Pounds lint	Total value (2)	Staple length	Lint per- centage	Bolls per lb. lint
Miller .....	733.5	598.4	622.0	729.3	668.5	172.41	1	36.3	176
Cleveland 54 .....	684.6	579.8	626.2	764.1	663.7	169.82	31/32	36.0	196
Hi-Bred .....	705.9	635.5	565.5	738.5	661.3	154.66	7/8	40.9	155
Deltapine 14 .....	646.6	652.5	588.3	715.0	650.6	173.29	1 1/16	38.8	206
Stoneville 5A .....	629.0	589.7	641.0	711.5	642.8	174.21	1 1/16	35.6	209
Stoneville 2B .....	604.9	641.2	537.6	693.2	619.2	173.45	1 3/32	35.4	180
Bobshaw 1 .....	705.9	561.0	511.1	679.1	614.3	162.93	1 1/16	35.6	202
Coker 100-9 (1) .....	579.6	570.4	551.6	667.8	592.3	175.03	1 1/8	36.6	193
Delfos 9431 (1) .....	566.9	527.9	539.5	621.4	563.9	178.81	1 5/32	33.6	227
Delfos 531C .....	537.6	536.9	558.2	592.5	556.3	180.41	1 5/32	33.7	235
Boboak .....	522.7	473.8	497.8	608.3	525.7	158.29	1 1/8	32.4	229

(1) Data for a closely related strain were used for years before current strain was tested.

(2) Based on middling grade.

than would be the case if the quality of seed comparable to such lint grades were known.

Seed for these tests was obtained from the originator in all cases.

The tests at Holly Springs were liberally fertilized ahead of planting. The planting was done early in May. Weather conditions later made possible the production of a satisfactory yield.

At State College prolonged low temperatures ruined the first planting in the latter part of April. The second planting was made early in May. Rains in June and July were not excessive and August

was the driest on record. Yields were fair.

The Raymond and Poplarville tests were planted on time. Excessive rainfall and insect damage prevented satisfactory yields.

Farmers would do well to examine seed supplies available for planting in 1946 with more than the usual care. In some areas rains during the harvesting season damaged much of the seed. Any supplies which are at all questionable should be tested for germination. In some cases the seed may be entirely unsafe for planting and should be discarded. Other sup-

Table 6. Cotton varieties: Holly Springs, valley soil, 1945.

Variety	Pounds lint per acre	Total acre value			Length inches	Lint percentage	Bolls per lb. lint
		Middling	Strict low middling	Low middling			
Cleveland 54 .....	764.1	213.75	204.97	182.81	1	35.5	169
Coker 100W-4 .....	754.9	218.48	207.91	183.38	1 1/16	34.7	177
Hi-Bred .....	738.5	186.09	184.61	169.84	7/8	39.4	137
Miller .....	729.3	206.05	197.30	175.05	1 1/32	35.6	158
Delfos 9169 .....	723.4	214.64	202.71	179.20	1 3/32	34.8	170
Deltapine 14 .....	715.0	207.14	195.34	172.10	1 3/32	38.4	188
Stoneville 5A .....	711.5	212.36	200.62	177.50	1 3/32	34.0	182
Empire .....	696.5	201.29	191.54	168.90	1 1/16	34.9	142
Stoneville 2B .....	693.2	205.82	194.39	171.86	1 3/32	34.7	164
Bobshaw 1 .....	679.1	196.55	187.05	164.98	1 1/16	34.7	185
Delfos 050 .....	668.5	202.73	191.70	169.97	1 3/32	32.0	182
Coker 100-9 .....	667.8	196.61	185.60	163.89	1 3/32	35.9	169
Delfos 9431 .....	621.4	201.80	185.02	160.17	1 1/8	32.6	200
Boboak .....	608.3	184.46	174.42	154.65	1 3/32	32.0	212
Delfos 531C .....	592.5	191.70	175.70	152.00	1 1/8	33.1	209
Bobdel .....	591.0	179.53	169.78	150.57	1 3/32	31.8	223

Table 7. Cotton variety averages: State College, 1941-1945.

Variety	Annual lint yields					Averages				
	1941	1942	1943	1944	1945	Pounds lint	Total value (2)	Staple length	Lint percentage	Bolls per lb. lint
Deltapine 14.....	220.7	621.0	585.9	607.4	429.3	492.9	124.50	1 1/16	40.4	192
Cleveland 54.....	221.9	599.8	494.2	571.4	531.4	483.7	117.22	15/16	37.4	197
Miller .....	210.5	584.4	541.5	548.2	484.8	473.9	117.57	31/32	37.2	178
Hi-Bred .....	251.3	574.6	612.3	436.3	482.7	471.4	104.28	27/32	43.0	153
Stoneville 5A .....	222.0	530.8	540.9	525.5	465.6	457.0	117.77	1 1/32	36.4	210
Stoneville 2B.....	205.1	571.7	511.1	509.6	473.8	454.3	121.24	1 1/16	35.3	191
Coker 100-9 (1) .....	269.8	551.2	423.0	562.4	407.8	442.8	119.94	1 3/32	37.8	197
Bobshaw 1.....	224.1	527.3	480.4	488.7	453.1	431.7	110.96	1 1/32	36.5	208
Delfos 9431 (1) .....	165.9	520.5	481.6	467.0	380.5	402.7	116.01	1 1/8	34.3	227
Delfos 531C.....	173.7	515.3	486.5	465.7	363.0	400.8	118.06	1 1/8	34.0	231
Boboak .....	198.9	459.0	435.6	449.4	393.6	387.3	108.90	1 3/32	33.3	231

(1) Data for a closely related strain were used for years before current strain was tested.

(2) Based on middling grade.

Table 8. Cotton varieties: State College, 1945.

Variety	Pounds lint per acre	Total acre value			Length inches	Lint per- centage	Bolls per lb. lint
		Middling	Strict low middling	Low middling			
Cleveland 54 .....	531.4	140.53	136.54	124.59	29/32	36.9	180
Empire .....	512.6	144.83	138.68	123.04	1 1/32	35.6	157
Miller .....	484.8	133.29	127.95	114.86	15/16	35.9	165
Hi-Bred .....	482.7	117.98	117.02	107.36	27/32	44.5	142
Stoneville 2B .....	473.8	134.45	128.76	114.31	1 1/32	35.0	174
Delfos 9169 .....	469.2	133.66	128.03	113.72	1 1/32	34.5	178
Stoneville 5A .....	465.6	132.74	127.15	112.95	1 1/32	34.4	195
Bobshaw 1 .....	453.1	129.37	123.93	110.11	1 1/32	34.2	184
Deltapine 14 .....	429.3	118.56	113.41	100.31	1 1/32	39.0	182
Bobdel .....	427.7	124.46	119.33	106.29	1 1/32	31.9	209
Coker 100W-4 .....	410.0	116.26	111.34	98.84	1 1/32	35.1	183
Coker 100-9 .....	407.8	117.18	111.47	98.21	1 1/16	35.7	194
Boboak .....	393.6	117.12	111.61	98.82	1 1/16	31.3	215
Delfos 9431 .....	380.5	115.00	108.73	96.36	1 3/32	32.4	217
Delfos 531C .....	363.0	106.82	101.74	89.94	1 1/16	32.6	217
Delfos 050 .....	353.7	102.23	97.98	87.19	1 1/32	32.7	197

Table 9. Cotton variety averages: Raymond, hill soil, 1941-1945.

Variety	Annual lint yields					Averages				
	1941	1942	1943	1944	1945	Pounds lint	Total value (2)	Staple length	Lint per- centage	Bolls per lb. lint
Hi-Bred .....	479.1	710.4	633.8	630.2	482.5	587.2	126.03	27/32	42.3	168
Bobshaw 1 .....	570.8	718.0	607.1	553.9	407.7	571.5	139.58	1	37.0	223
Deltapine 14 .....	494.0	761.9	567.9	600.7	424.1	569.7	137.53	1 1/32	40.6	216
Stoneville 2B .....	541.8	758.0	550.7	549.0	398.1	559.5	141.34	1 1/16	36.4	201
Coker 100-9 (1) .....	487.7	768.8	563.4	541.5	423.1	556.9	146.30	1 3/32	38.6	208
Cleveland 54 .....	511.1	713.2	590.4	555.7	370.8	548.2	128.08	29/32	37.2	214
Miller .....	522.5	693.7	550.6	548.1	405.3	544.0	129.94	31/32	37.7	188
Stoneville 5A .....	470.4	676.8	543.8	543.9	433.8	533.7	130.86	1	37.4	226
Delfos 9431 (1) .....	416.2	683.3	498.4	491.2	448.3	507.5	138.63	1 3/32	35.2	241
Delfos 531C .....	454.6	702.6	483.0	488.9	368.3	499.5	132.61	1 1/8	35.5	241
Boboak .....	470.2	644.2	484.8	451.0	342.9	478.6	129.13	1 1/16	33.8	243

(1) Data for a closely related strain were used for years before current strain was tested.

(2) Based on middling grade.

Table 10. Cotton varieties: Raymond, hill soil, 1945.

Variety	Pounds lint per acre	Total acre value			Length inches	Lint per- centage	Bolls per lb. lint
		Middling	Strict low middling	Low middling			
Hi-Bred .....	482.5	119.26	118.29	108.64	27/32	42.5	156
Coker 100W-4 .....	469.6	126.33	125.40	111.07	1 1/32	37.4	200
Delfos 9431 .....	448.3	128.90	122.62	108.05	1 1/16	35.6	237
Stoneville 5A .....	433.8	121.04	115.83	102.60	1 1/32	37.4	215
Deltapine 14 .....	424.1	116.02	110.93	97.99	1 1/32	40.6	202
Coker 100-9 .....	423.1	118.96	113.03	99.28	1 1/16	39.0	194
Empire .....	413.6	117.24	111.45	98.01	1 1/16	37.7	170
Bobshaw 1 .....	407.7	114.29	109.40	96.97	1 1/32	36.7	219
Miller .....	405.3	110.54	106.08	94.33	31/32	38.1	179
Delfos 9169 .....	403.5	112.96	108.12	95.82	1 1/32	36.9	198
Stoneville 2B .....	398.1	111.60	106.83	94.68	1 1/32	36.7	196
Delfos 050 .....	387.8	110.22	105.56	93.74	1 1/32	34.8	211
Cleveland 54 .....	370.8	100.66	96.58	86.57	15/16	37.7	208
Delfos 531C .....	368.3	108.43	102.35	90.38	1 3/32	35.9	230
Boboak .....	342.9	99.85	95.05	83.90	1 1/16	33.9	247
Bobdel .....	334.8	95.44	91.43	81.22	1 1/32	34.4	229

plies may be usable if the planting rate is increased considerably.

The grower will be fortunate, indeed, if he has a surplus of excellent seed. Any such surplus will very probably be need-

ed somewhere in the State. In fact, if as much planting over should be necessary in 1946, as was the case in 1945, a shortage of good seed could cripple production seriously. Do not use guesswork about planting seed.

Table 11. Yields at the several Mississippi locations, 1945.

Variety	Pounds lint per acre					
	Holly Springs		State College	Raymond Hill	Poplar- ville	Average
	Hill	Valley				
Hi-Bred .....	719	738	483	482	447	574
Empire .....	681	696	513	414	432	547
Deltapine 14 .....	716	715	429	424	414	540
Miller .....	680	729	485	405	360	532
Cleveland 54 .....	639	764	531	371	282	517
Coker 100W-4 .....	603	755	410	470	331	514
Stoneville 5A .....	579	711	466	434	335	505
Coker 100-9 .....	557	668	408	423	399	491
Stoneville 2B .....	541	693	474	398	338	489
Bobshaw 1 .....	534	679	453	408	317	478
Delfos 9169 .....	534	723	469	403	234	473
Delfos 050 .....	629	668	354	388	270	462
Delfos 9431 .....	481	621	380	448	295	445
Bobdel .....	575	591	428	335	275	441
Boboak .....	570	608	394	343	218	427
Delfos 531C .....	480	592	363	368	305	422