

Yields in pounds of lint per acre basis

Approximate Spacings

Plant Population/A.	36"	30"	24"	18"	12"	6"
	30,000	36,000	45,000	60,000	90,000	135,000
Stoneville 7A	1558	----*	1800	1397	1308	1236
Deltapine Smooth Leaf	1150	1426	1399	1426	1344	1371
Lockett 4789	941	1052	979	1018	1005	----*

* Missing plot

There were no significant differences among treatments for Deltapine Smooth Leaf and Lockett 4789, but the differences among some of the Stoneville 7A spacing treatments were significant.

Some of the problems involved in producing close row planted cotton are--

1. Difficulty in obtaining satisfactory stands using a grain drill.
2. Controlling plant size in order to achieve an early set of one or two bolls per plant. Large plants and the consequent shading in dense stands inhibits boll setting on smaller plants and inhibits early boll set on the other plants.
3. Problem of harvest. A mechanical harvester suitable for close row planted cotton must be developed. A modified finger stripper developed in west Texas may be a partial answer.
4. Weed control. Early weed control during emergence and establishment of a stand is necessary. Pre-emergence application of a suitable herbicide may do the job.

Drilled Cotton Tried Again in Pinal County

(Charles Robertson, Sam Stedman, & Henry Brubaker)

The Pinal County demonstration on the Rex Gladden Farm was repeated with changes in 1964. Cotton was planted with a grain drill in flat borders and on beds with different numbers of rows on a bed.

Variety	No. of rows per bed	Lbs. of Lint	No. of Acres	Lint per Acre
	2	302	.35	863
Deltapine	3	163	.18	906
Smooth Leaf	4	236	.23	1026
	2	200	.23	870
Mississippi	3	138	.12	1150
Deltapine	4	588	.06	967
	2	191	.23	830
Deltapine	3	541	.58	933
45	4	196	.23	852
	2	43	.06	717
PayMaster	3	187	.23	813
	4	33	.06	550

Drilled Solid Cotton in Borders, 1 foot apart, 12 feet wide, 600 feet long.

Variety	No. of rows per bed	Lbs. of Lint	No. of Acres	Lint per Acre
Mississippi Deltapine	----	195	.17	1147
Drilled Solid Cotton in Border 6 inches apart, 12 feet wide, 600 feet long.				
Variety		Lbs. of Lint	No. of Acres	Lint per Acre
Deltapine	----	179	.17	1053
Deltapine 45	----	178	.17	1047
PayMaster	----	113	.17	665

Broadcast Cotton Does O.K. in Yuma County

(Jim Hazlitt)

The broadcast cotton test on the Jim Naquin Ranch at Roll yielded as well as his regular solid planting. The broadcast cotton yielded 1530 lbs of lint per acre. The regular planted cotton averaged approximately 1500 pounds.

The land was pre-irrigated March 10 and 3/4 pound trifluralin was applied and incorporated on April 1, 1964. Fifty (50) pounds of DFL Smooth Leaf was planted with a grain drill on April 5. Every other hole on the drill was plugged to make 14 inch rows. The regular planted cotton was planted with a precision planter at 12 lbs. per acre.

The plot received irrigation on May 29th, June 25th, July 15th, July 31st and August 21. This was one less irrigation than the regular planted cotton obtained.

The broadcast cotton received no cultivations. An interesting side light was that watergrass came back in the regular planted cotton in late August after the herbicide action was exhausted. The broadcast cotton shaded the ground sufficiently to control the grass problem with the preplant application of trifluralin. Also it may knock in the head the idea that cultivations are necessary for mulching and water penetration purposes on this type of soil.

An attempt to desiccate the plot was made on September 22nd. While the desiccation was not completely successful, future growth and set was halted.

All in all, there was a saving in planting costs, cultivations and one irrigation. There was an increase in seed costs and of course it had to be hand picked. Perhaps this can be overcome in the near future.