

Table 1. Lint yield in pounds per acre from 5 between-row spacings and 2 varieties, Deltapine Smooth Leaf and Experimental 6010.

Variety	Between-row spacings in inches			
	7	14	21	28
	- - - - - lbs - - - - -			
DpSL	1286	1254	1283	1054
Exp. 6010	1348	1280	992	1067
Average over spacings	1317	1267	1138	1061

Table 1 shows the responses of the two varieties to between-row spacings in terms of lint yields per acre. A significant difference between spacings was found for the varieties with the average response from both varieties indicating that the narrowest row spacing yielded the highest amount of lint per acre, while response to the widest between-row spacing was lowest in yield.

Deltapine Smooth Leaf showed no yield difference between the 7-inch and 21-inch rows spacings, but wider row spacing caused a reduced yield. Experimental 6010 showed a definite advantage at the narrowest row spacing with yields decreasing as the space between rows was widened.

This year's results indicate, as in the past, that it is difficult to gain the high yield that is theoretically possible from a high plant population. It does indicate that in certain instances where soil fertility and water may limit production, closer row spacing may give an increase in yield. If the problems of obtaining a good stand with a grain drill and narrow-row harvesting can be overcome, cotton production costs may also be lowered.

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## B. MULCHES

### Synthetic Mulching Experiment

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The third year of synthetic mulch testing included three dates of planting and three mulching treatments. Dates of planting were March 20, March 27, and April 20. Unseasonal rains delayed the first date of planting.

which was planned for March 15. The late planting was delayed until April 20 because of rain; it was planned for April 10. Mulching treatments were, (a) Asphalt mulch, (b) Black plastic and, (c) Clear plastic. An unmulched check was used for comparison.

Harvested yields showed significant differences by date and mulching treatment as shown in the following table.

Table 1. Seed cotton yields, pounds per acre, when using different synthetic mulches at three planting dates

Treatment	Planting Date			Mean for Treatment
	3/27	3/20	4/20	
Clear Plastic	4,098	4,083	3,553	3,911
Black Plastic	4,092	3,976	3,531	3,866
Asphalt	3,383	3,588	3,432	3,634
Check, No Mulch	3,438	3,220	3,401	3,353
Mean for Dates	3,878	3,717	3,479	3,691

The three mulching treatments showed a significant increase in yield, as compared to the check. The two early dates of planting gave a significant increase in yield, as compared to the planting on April 20.

The conclusion is that earliness, rather than a particular type of mulching material, is the critical factor. Future testing will be done with mulches that seem to be economically feasible.

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