

Delayed Post Irrigation Study

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The following are results of a demonstration that was designed to be an irrigation timing study but due to the excessive hot, dry conditions in early June the delayed first post irrigation was only four days later than the conventional application. A differential of at least 14 days was needed to meet the demonstration criteria. However, two varieties which had been selected as likely short-season candidates were used in the design which permitted a simple variety comparison. The field was planted on April 13 and harvested November 10 & 11. The results are for first pick only as a high percentage was harvested on that date.

1981 - VARIETY COMPARISON *
Tom Clark - Marana

<u>VARIETY</u>	<u>Seed Cotton/A</u> (Pounds)	<u>Lint %</u>	<u>Lint/A</u> (Pounds)
St 506	3624	31.46	1140
DPL 41	3206	33.23	1065

*First Pick Only

Previous experience in 1979 and 1980 had shown that by delaying the first post-plant irrigation by about two weeks plants started to fruit earlier, had less early season insect populations and required one less irrigation (app. 6 inches) without affecting yield significantly.

The two varieties chosen for this work could become the predominant ones for this area in the near future. Thus we were able to evaluate their performance under the parameters of shorter season production. St 506 appears to be one of the shortest season varieties tested to date. Preliminary variety results indicates that DPL 41 will perform well under the shorter - season regime.

Effect of Row-Widths and PIX on Pima Cultivars

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Summary

For the second year, genotype had more influence on earliness and yield than either the application of a growth regulator or a change in planting pattern.

The effects of the growth regulator PIX and row-width on three cultivars of Pima cotton were evaluated (Table 1). Seven harvests were made over an approximately three-month period. Treatment and row-width had a significant effect on yield only for the first harvest on August 17. The accumulated yields from the next six harvests showed no significant yield differences from treatment or row-width. The accumulated yields for 81-102 were higher than for Pima S-5 through the September 28 harvest. The accumulated yields for 81-130 were higher than for Pima S-5 at all harvest dates. The extreme earliness and short plant stature of 81-102 resulted in a lower total yield than for Pima S-5.