

handle the cotton without clogging the conveyor system; otherwise, no serious trouble was experienced with the stripper at this location.

#### Procedure at Marana

1. One hundred pounds of nitrogen was used. Forty pounds (from Urea) was plowed under, and sixty pounds in the water after emergence.
2. Crop was mechanically thinned.
3. Four irrigations after emergence, the last on August 1; however, 13 inches of rainfall was received from July through December.
4. No defoliant was used. Harvest was delayed until December 10, following the first freeze.
5. Plots were harvested by stripper only and gleaned for field losses.

#### Observations

Harvest of the cottons using the commercial stripper, which was designed for Plains grown cotton, presented several problems not anticipated. The following problems were encountered:

1. The plants were too tall. The plants were bent to such an extent that the picking action of the rolls was lost. Picked locks of cotton were dropped and left hanging to the stems in the top of the plant.
2. The picking capacity of the machine was over-loaded so ground speed was very slow. Conveyors were unable to move the cotton to the basket rapidly enough.
3. The basket capacity was too small.

#### Yuma County Stripper Harvest Experience

(Jim Hazlitt)

Last spring considerable interest was developed through the state on the possibility of stripper harvest of cotton. This type of harvesting gained a foothold in the Plains area of Texas and Oklahoma as well as in the El Paso area. The main advantage of this type of harvest was speed and reduced harvesting costs.

Plots for stripper harvest were placed on the Naquin Ranch near Roll. The conventional variety, Delta & Pine Smoothleaf, was planted along with two Texas Plains stripper type varieties, Paymaster 101-A and Lankart 57.

The land was pre-irrigated March 10 and had 3/4 pound Treflan applied April 1. All varieties were planted April 5. The Lankart variety emerged at least two weeks later than the others. The first irrigation was applied on May 29. Other irrigations were on June 25, July 15, July 31 and August 21. A total 56 pounds of nitrogen was applied throughout the growing season, 40 pounds in the June 25 irrigation and 16 pounds in the July 15 irrigation. Petiole analysis showed 14,800 p.p.m.  $\text{NO}_3$  June 18, and 8,200 p.p.m.  $\text{NO}_3$  June 24.

On September 22, Diquat, a new herbicide, was flown on in an attempt to kill the cotton in preparation for the Stripper harvest. This was unsuccessful so an application of Folex was applied by air October 10. This was followed in a few days by rain and caused some regrowth to the cotton plants. A final application of Folex was applied four days before the Stripper demonstration but had little effect.

The condition of the cotton plants at the time of the demonstration was not satisfactory for proper stripping. The two Plains varieties had too many green leaves and bolls so an attempt to strip these was not made. The Delta Pine variety was in better shape, but it also had too many green leaves and green bolls for proper stripping.

This year's results indicate that if the Stripper is to be used successfully in this area, the cotton plants will have to be completely dead and all of the cotton open. This seems unlikely to happen until after a killing frost or perhaps with the use of a more potent desiccant. The plants may have desiccated better if the August irrigation had been withheld, although the late crop probably would have been reduced.

### Final County Stripper Cotton Project

(Henry Brubaker and Sam Stedman)

Allen McFadden - Cooperator

<u>Varieties</u>	<u>No. of Rows</u>	<u>Percentage</u>	<u>Grade</u>	<u>Lbs. of Lint</u>	<u>Lbs. of Lint per 16 Rows</u>
Deltapine 45	28	26.44	S.M. - 1 1/16	1402	301
DeKalb 302	16	25.73	S.M. - 1 1/32	580	580
Paymaster 101A	16	24.87	M. - 1 1/16	477	477
Blightmaster	16	24.37	M. - 1 1/16	492	492
Northern Star	16	25.70	M. - 1 1/16	579	579
Deltapine 45	32	23.61	M. - 2, S.M.-1	1497	749
Gregg	16	24.38	S.M. - 1 1/16	395	395
Deltapine Smooth leaf	24	25.87	S.M. - 1 1/32, 1 1/16, 1 3/32	1301	867

Planting was done by putting two rows of cotton on each bed.

Planting date - May 18.

Test was not replicated.

Hand Snapped - November 5, 1964

100 Units of Nitrogen.

Cultivated Once.

Insect Control - Sprayed 4 times.

### Stripper Harvest Observations

(Bill Larsen)

Stripper Harvest has been observed in a number of locations throughout Arizona. Early season harvest (October, November) was unsatisfactory as it was not possible