Table 1. Summary of Results Obtained at Yuma Valley Experiment Station, 1966.

Final Irrigation	Seed Cotton Pounds per Acre	Percent in First Picking	Inches of Water Applied	Pounds of Seed Cotton per Inch of Water
	Acala 4-42			
July 11	4702	86.1	25	188
July 29	4627	82.7	31	149
Aug. 15	4404	85.2	36	122
Sept. 5	4385	80.4	43	102
Sept. 24	4665	87.2	48	97
	Delta Pine Smooth Leaf			
July 11	5169	86.6	25	207
July 29	5392	85.8	31	174
Aug. 15	5654	86.1	36	157
Sept. 5	5523	86.1	43	128
Sept. 24	5075	86.0	48	106

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IRRIGATION CUT-OFF EFFECT ON YIELDS

C. R. Farr, Agricultural Extension Agent, Maricopa County

Harris Cattle Company

Fear of reducing lint yield may cause many growers to continue irrigation later than desirable where pink bollworm problems are severe. Irrigation cut-off dates were alternated in two forty-acre fields in 1965.

These dates show that plants on Gila loam made very profitable crops with an August 20 cut-off.

Irrigation Cut-Off Dates

	Cut-Off Date	Acre-Feet Used	Bale Count/Acre	Gross Profit
Field 1	8/ 2/65	3.84	3.80	$239.56
	8/20/65	4.68	3.89	232.57
	9/ 2/65	5.72	3.78	194.81

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SPRINKLER VS. FLOOD IRRIGATION OF COTTON

K. R. Frost, Agricultural Engineer

Low-rate sprinkler irrigation was tested on grain sorghum and cotton at the Campbell Avenue Farm. One-half the rows in each of the treatments were strip-mulched with asphalt for germination in the cotton plantings. Ten percent more plants were obtained with the petroleum treatment compared with treatment without mulch.

Irrigations were applied on all treatments as indicated by the plants. The sprinkled plots received 3.05 ac.-ft. per acre on the cotton and 2.32 on the sorghum, while the flooded received 3.23 on the cotton and 2.40 on the sorghum.

Seed-cotton yields are listed in the table and indicate about the same result from all treatments. The better stand from the petroleum-mulch treated did not result in significant differences in either sprinkled or flooded plots. Both treatments were planted to a stand and not thinned.

Even though a very low rate of application with the sprinklers (0.12 in./hr.) was used, the cotton required less water than with the flooded plots. More seed cotton in pounds per acre-foot was obtained with the sprinkled plots than with the flooded.