

Genotype Test--1975 Yuma

Yield, lbs. of seed cotton/Acre (\bar{x} of 2 reps)

Stoneville 213	3835
DPL-16	3436
DPL-61	3109
Arizona Superokra	2212

Planted dry with grain drill and irrigated up, May 28, 1975.
Plant population, approximately 200,000 plants/Acre. Plots harvested by hand.

Genotype Test--1975 CRC, Phoenix

Yield, lbs. of lint/Acre (\bar{x} of 4 reps)

Arizona Superokra	880
Stoneville 213	749
DPL-16	736

Planted dry with grain drill and irrigated up, May 22, 1975.
Plant population approximately 180,000 plants/Acre. Plots harvested with stripper.

COMPARISON OF SHORT STAPLE PLANTING DATES

C.R. Farr

Increased interest in late plantings of cotton after small grain has directed attention at timing and yield losses as late wheat harvest delays cotton planting. Proportionately higher percentages of five-lock bolls have been observed in seasons with favorable weather so this characteristic was recorded in the data.

As expected, yield tended to decrease with later planting dates and boll size was smaller for the last two planting dates. Five-lock bolls were larger than four-lock bolls, but there was not consistent reduction in boll numbers or boll size as plantings were delayed. The June 15 planting showed undue moisture stress at one point and many late bolls were killed by an early frost to reduce yield below what had been expected.

Planting Date	No. 4-lock* Bolls/10 ft. Row	No. 5-lock** Bolls/10 ft. Row	Percent of 5-lock Bolls	Ratio Size	Percent Turnout 1st Pick	Lbs. of Lint per Acre
				5-lock: 4-lock Bolls		
1. April 25	238	58	19.7	1.22	34.65	1348
2. May 5	204	51	20.1	1.19	34.73	1167
3. May 15	170	50	22.8	1.29	33.58	1108
4. May 30	190	29	13.3	1.25	34.08	998
5. June 15	66	19	22.4	1.19	32.17	292

GRAMS PER BOLL

	April 2	May 5	May 15	May 30	June 15
4-Lock Boll Size	4.24 g	4.39 g	4.27 g	4.03 g	3.77 g
5-Lock Boll Size	5.19 g	5.21 g	5.52 g	5.04 g	4.48 g

*All data reported for 10-foot row samples which were taken from four-row plots
(continued)

planted 50 feet long. Each planting was replicated four times.
 **Plant populations ranged from 3.9 to 4.1 plants per foot or from
 53,650 to 56,400 per acre. The June 15 population ranged from
 2.6 to 3.1 plants per foot or from 35,766 to 42,644 per acre.

NARROW-ROW HARVESTING

M.D. Cannon

Field G-3, Cotton Research Center: Field was planted to Delta-Pine 16 on March 25. Spacings were conventional single, 40-inch row check, and three double-row configurations on 40-inch centers-- 6-inch, 8-inch and 14-inch. The planting rate for all single-row was 12 lb/A; for double-row it was 24 lb/A. Culture was normal for the farm until harvest. The plots were harvested with a conventional spindle harvester after complete defoliation and was second-picked on the same date. Cleanings were made from three selected sampling areas in each plot. Results are shown in the table below.

Total Yield and Picking Efficiency when using a Spindle Machine for Harvesting Narrow-row Cotton.

Planting pattern	Total yield, pounds S/C per acre	Harvesting efficiency
Single, 40" row check	3,043 a	86.24 a
Double-row 6"	3,095 a	81.74 a
Double-row 8"	3,068 a	82.03 a
Double-row 14"	3,126 a	77.92 a

There were no significant differences at the 5% level in either total yield or harvesting efficiency.

An extended period of cold weather followed planting; the seeds failed to germinate and emerge, and the plots were replanted on April 14th.

NARROW-ROW HARVESTING

M.D. Cannon

Row-spacing tests, planted at the normal time, at Marana and Safford gave the following results:

SAFFORD: 1975, Pounds Seed Cotton Harvested, Left in the Field and Picking Efficiency after Two Pickings with a Single-Row Spindle Machine

Treatment	Pounds S/C per acre			Harvesting eff., Percent
	Picked	Lost	Total Yield	
Single 40" row 13.8#/acre	1,802	291	2,093 b	85.93 a
2 rows, 6" apart 27.6#/acre	1,545	477	2,022 b	76.33 b
2 rows, 8" apart 27.6#/acre	1,642	643	2,285 a	71.00 c
2 rows, 10" apart 27.6#/acre	1,376	984	2,360 a	58.20 d