

Table 3. Lint yield in pounds per acre with and without Pix application and 30- and 40-inch rows over all varieties at the CRC, 1980.

Treatment	Row Width	
	40"	30"
Pix	1415	1345
No Pix	1419	1440

Table 4. Accumulated percent of crop harvested from four harvest dates for three varieties, 30- and 40-inch rows, with and without Pix application at the CRC, 1980.

Variety	Row Width	Percentage of total yield harvested as of:						10-6 All
		8-26		9-11		9-24		
		Pix	No Pix	Pix	No Pix	Pix	No Pix	
7203	40"	29	27	62	58	85	81	100
	30"	47	47	70	72	86	87	100
7209	40"	41	37	69	66	90	89	100
	30"	51	53	77	75	89	88	100
DP70	40"	20	18	55	54	79	79	100
	30"	38	35	71	68	88	87	100

Effects of Row Widths and Pix on Pima Cultivars

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Summary

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). On September 8, when approximately one-half of the bolls on each strain were open, 79-103 and 79-106 yielded 26 and 42 percent, respectively, higher than Pima S-5. At final harvest on October 20, the two strains yielded 11 and 29 percent, respectively, higher than Pima S-5. Thirty-inch row widths, compared with 40 inch, increased earliness slightly but had no effect on total yield. The application of Pix gave a slight increase in yield in the 40-inch rows but had no effect in the 30-inch rows.

Table 1. Accumulated seedcotton yields from five harvest dates for three Pima cultivars planted in 30- and 40-inch rows with and without the application of Pix at Phoenix, 1980.

			Pounds of seedcotton per acre harvested as of:				
Row width-Treatment-Cultivar	8/25	9/8	9/22	10/9	10/20		
40" NP 79-103	245	1140	1683	2195	2377		
" " 79-106	239	1242	1992	2517	2698		
" " Pima S-5	153	987	1416	1989	2207		
" P 79-103	225	1308	1808	2385	2649		
" " 79-106	254	1420	2119	2662	2922		
" " Pima S-5	134	965	1462	2022	2304		
" NP all cultivars	212	1123	1697	2234	2427		
" P all cultivars	204	1231	1796	2356	2625		
30" NP 79-103	255	1483	1890	2308	2569		
" " 79-106	211	1552	2258	2667	2914		
" " Pima S-5	166	1103	1483	1924	2211		
" P 79-103	250	1246	1708	2164	2405		
" " 79-106	277	1604	2254	2750	3021		
" " Pima S-5	150	1044	1464	1970	2249		
" NP all cultivars	211	1379	1877	2300	2565		
" P all cultivars	226	1298	1809	2295	2558		
40"	208	1177	1747	2295	2526		
30"	218	1339	1843	2297	2562		
NP	212	1251	1787	2267	2496		
P	215	1265	1803	2326	2591		
79-103	244	1294	1772	2263	2500		
79-106	245	1455	2156	2649	2889		
Pima S-5	151	1025	1456	1976	2243		

P = Pix applied at rate of 20 g active ingredient/acre on 6/26.
 NP = No Pix applied.

THE USE OF PIX IN ARIZONA

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Upland Cotton

PIX, a cotton plant regulator, was evaluated at several locations during the 1980 growing season. Applications were made to cooperating cotton growers fields by ground using one nozzle directed above each row of cotton.

The Pix label suggests timing the application to appearance of 5-6 white blooms per 25 feet of row. Using bloom member as a guideline, most applications were applied late. Even though flower counts show the timing of application was late, the number of days of the delay was small. This suggests that PIX should be applied at an earlier physiological stage and/or the timing determined using different technique.

An earlier application and/or double application appears to be especially important in the longer growing areas of the state.

Vigorously growing Upland is more likely to favorably respond to PIX applications. Our findings suggest PIX applications following water stress may prove detrimental.

The current method of determining timing of application may be appropriate for the higher elevations of Arizona. Our findings also suggest that late planted cotton may respond favorably to PIX applications.