

1992 Cotton Management Economic Notes

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August 24, 1992

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Harvest Economics

The 1992 cotton harvest season is almost here. This edition of the newsletter discusses some economic issues of cotton harvesting. Once a cotton crop is "made", the economics are such that the cotton is almost always harvested if the weather permits. Although the weather does not always cooperate, timely and efficient harvest is always desirable. **The risk of quality damaging rainfall increases as Fall and Winter approach.**

One of the most costly and critical operations in cotton production is harvesting. The cotton lint

must be mature and the plant mass must be reduced for the cotton pickers to work correctly. Harvest of quality lint requires that trash content be kept to a minimum in lint that is fully matured. **Harvest costs are over 20 percent of the variable cost of producing cotton.**

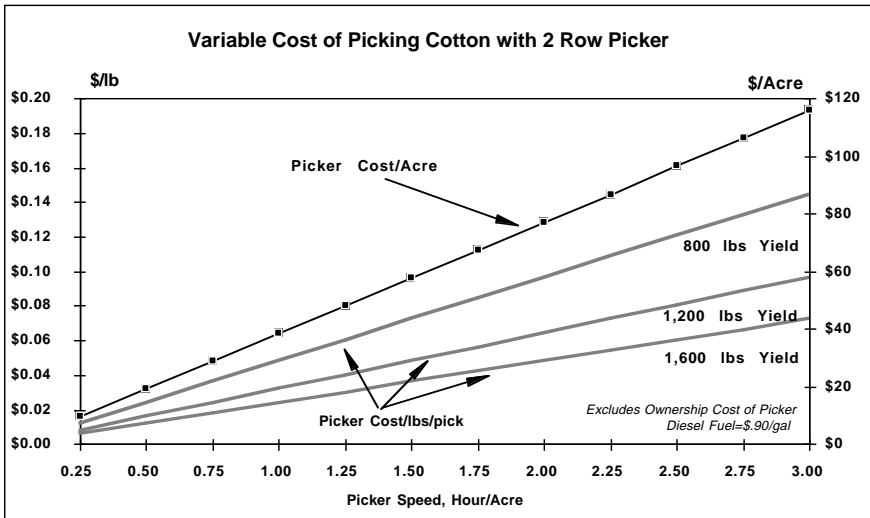


Defoliation. Harvesting starts with defoliation and preparation for harvest operations. Defoliating twice, first with endothall and thidiazuron and then with sodium chloride will cost about \$36/acre when applied by air with 5 gallons of water. Defoliation and preparation of the field are critical. Proper irrigation management and a little luck might keep these cost lower.

Picking. The figure to the left gives some basic information about the cost of operating a 2 row cotton picker. Two important pieces of information are used to estimate a cost/lb of harvested lint for a single time over the field; hours required to pick an acre and lint yield expected for the picking. The top line is the cost/acre of operating the picker (right axis). Cost/lb is read off the left axis for the shown yields. Costs include fuel, repairs and operator labor, but exclude equipment depreciation and interest and other unallocated ownership costs. The slower the picker moves the more costly the harvest/lb of lint. At 1,050

lbs yield/acre for a first pick, the cost is about 3.5¢/lb at one hour/acre.

Second pick usually runs faster and yields are less. If second pick is 250 lbs/acre and average speed is 40 minutes/acre, the cost is about 9.0¢/lb of lint. Custom or contract rooding of ground cotton is estimated at about 28-30¢/lb of lint. About 4% of Arizona's cotton lint is harvested by rood. Typical rood yields might be 50 to 80 lbs/



Recent Prices

August 21, 1992

	Upland (c/lb)	Pima (ELS) (c/lb)
Spot	56.53	89.50
Target Price	72.90	105.80
Loan Rate	51.15	88.15
December Futures	56.25	

Note: Upland Spot for Desert SW grade 31, staple 35;
 Pima Spot for grade 03, staple 46 8/14/92; Phoenix Loan Rates

Estimated To-Date Production Costs

\$/lint lb (August 24)

The following table gives estimated production costs/lb to-date. These costs include both growing and fixed or ownership costs and are based on the displayed target yields. Producers with higher yields will have lower costs/lb if input costs are the same. Growers with lower yields will have higher costs/lb.

County	Target Yield	Growing Costs August To Date		Fixed Cost	All Costs To Date
Yuma	1,300	.13	.29	.25	.53
La Paz	1,300	.05	.24	.27	.51
Mohave	1,100	.05	.25	.23	.48
Maricopa	1,250	.05	.23	.23	.47
Pinal	1,300	.06	.28	.26	.55
Pima	1,100	.08	.26	.28	.54
Cochise	700	.05	.51	.42	.93
Graham	1,050	.04	.28	.31	.59
Greenlee	850	.03	.32	.36	.68

Note: Based on Wade, et al., "1992-93 Arizona Field Crop Budgets", Various Counties, Arizona Cooperative Extension, Tucson, January 1992.

acre, depending on weather and specific field conditions. The three harvest costs from the above example give an average cost of picking of about 5.7¢/lb of lint yield.

Module Building and Hauling. The third major factor in harvest cost is building modules and hauling modules to the gin. Some gins include hauling as a part of the ginning cost. Module building costs vary with field conditions and hauling with distance to the gin. If one module builder and 2 workers can support 3 pickers, building cost are about \$9.30/acre or about \$4.25/bale for the first pick. Second pick modules are somewhat more expensive.

- **Growers should strive to make cotton harvesting as efficient as possible.**
- **Cotton harvested on the first pass is more efficient (less cost than later passes).**
- **Risk of decreased quality increase the later harvest becomes.**
- **Efficient cotton harvest is setup by good management and good weather.**

Marketing

In the past four weeks ending August 21, upland spot prices have slid 669 points according to USDA, Agricultural Marketing Service. December 92 Futures prices have dropped 535 points during this period as well. The National Agricul-

tural Statistics Service released statistics on August 12 that contributed to much of the market's slide.

1992 Yield and Production Estimates. US yield estimates for 92 upland cotton were up 40 lbs/acre from 91 in the August 12 report. Upland yields for Arizona were forecasted at 1,283 lbs/acre, up from 1,201 in 91. Similar yield increases were made for California, New Mexico, Missouri, and Tennessee. Mississippi yields are expected to be down 67 lbs/acre, but total production for the state is expected to increase slightly from additional plantings. Other major cotton states like Texas, Arkansas, and Alabama are expected to have yield levels comparable to 91 yields.

US Pima yield estimates for 92 were up dramatically at 932 lbs/acre, 148 lbs/acre above 91. Yield increases of 291 and 130 lbs/acre for Texas and New Mexico are projected while more modest increases of 56 and 15 lbs/acre for Arizona and California are projected, respectively. Yield estimates of 916 and 1,112 lbs/acre for Arizona and California, respectively were projected in the August 12 report.

Overall, 1992 state yield estimates are expected to result in a 44 lb/acre yield increase from 1991 for all U.S. harvested acres. This yield increase is significantly above the average trend yield of around 10 lbs/acre. Total production for 92 was forecasted at 16.5 million bales on August 12, up .5 million bales from the July 9th estimate of 16.0 million bales. Although .5 million bales increased total 92 production by only 3%, this will probably translate into at least a 12% increase in ending stocks — a figure that is already large in view of the large foreign crop expected. Foreign ending "stocks to use" ratios are projected to be at 48% for the 92/93 marketing year, above the 45% figure for 91/92 and substantially above the three year 88/91 average of 34%.

A 28% increase in U.S. Pima production is expected to increase exports 16% and domestic consumption 7% (primarily from lower price projections) in the 92/93 marketing year. However, the ending "stocks to use ratio" for Pima was still projected to climb from 29% to 44% for the 92/93 marketing. A 44% mark would be the highest "stock to use ratio" for Pima since 1986. If all Pima eligible for loan remains there through the marketing year, the ending stocks to use ratio could easily climb to 48%.