

## Packinghouse Newsletter No. 68

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<u>Key Word Index</u> Economics, Labor, Packout, Picking, Residue Tolerances, TBZ.

## HARVESTING AND PACKING COSTS\*

For several years now those of you making loans to citrus handling firms have probably seen requests for funds growing even though an individual firm is not necessarily handling more fruit. Those of you who are borrowing money to operate citrus handling firms understand that recent cost increases have spawned demand for extra capital.

## A. Picking and Hauling

Fig. 1 illustrates the average cost components of picking and hauling oranges for the past five seasons.

Picking labor accounted for 52% of the total and other labor (supervisory, loaders, drivers, workman's compensation, payroll taxes) accounted for another 24% of the total. Over 75% of the total cost of picking and hauling oranges was attributed to labor.

Repairs and maintenance accounted for 12%, administrative (office salaries, supplies, auto, travel, entertainment, legal fees, telephone, audit) expenses accounted for 4%, fuel and oil averaged 3% with 5% in the "other" category (licenses, insurance, taxes).

To develop an estimate for the current season, simple projection of the percentage increases of the last 5 years into the 1973-74 and 1974-75 seasons yields an estimate of \$1.14 per box. Because of the rather encouraging labor picture, I do not expect picking and hauling costs to be higher than \$1.10 for the 74-75 season.

### B. Packing and Selling

Fig. 2 illustrates the average cost components of packing and selling oranges in 4/5 bushel cartons over the past 5 seasons. Labor is again the largest component with materials close behind. Repairs, maintenance and depreciation made up 9.3% of the total, selling costs 7.2%, administrative 4.6%, power, lights and water 1.3%. Included in the rather large "other" category are advertising taxes, inspection fees, precooling, coloring, waxing and rent expenses.

Adopted from a talk presented at the Florida Banker's Association's Citrus Forum, Winter Haven, Florida. November 14, 1974.

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It is difficult to evaluate cost increases because of the changes in packinghouse technology that have occurred in the past 10 years. That cost increases have been very modest over the past 10 seasons probably reflects a shift to improve technology. Had technology not improved, I believe these increases would have been greater. The potential for maintaining the historically low cost increases depends on: (1) how many firms adopt existing technological improvements; and (2) the ability of the industry to continue to improve technology. Labor represents an important consideration for the packinghouse operators. The fact that packing and selling costs have increased less on a percentage basis than have picking and hauling costs, probably reflects to some degree the greater ability of the packinghouse to mechanize.

An important factor for the current season is the recent increase in carton and other container prices. Preliminary data indicate that 1973-74 costs will be about 15% above 1972-73 levels or at about \$1.08 per 4/5 bushel carton of oranges. Allowing 4-1/2¢ for carton price increases, 1/2¢ for energy increases and 2-1/2 to 5¢ for labor and other cost increases makes \$1.15 to \$1.18 a reasonable estimate for the 1974-75 season. It must be stressed that the \$1.08 figure is a very rough beginning estimate, based on only 9 firms.

## C. <u>Conclusions</u>

1. We have found that the picking and hauling operations generate rather short term capital needs to meet payrolls; while for the packing operation, capital to purchase materials and equipment and to maintain inventories is relatively more important than capital to meet payrolls.

2. The industry has been able to maintain rather reasonable costs. The industry's ability to maintain reasonable cost performance depends to some degree on its ability to invest in technology that allows shifts to less expensive inputs. The investment takes two forms--industry investment in research and development of new technology and individual firm's investments in adopting new technology. Both types of investments will require banking industry support.

3. There are several specific factors that may influence the industries capital needs in the future.

Currently, a significant research investment in mechanical harvesting equipment is underway at Lake Alfred. The results could lead to breakthroughs that will make mechanical harvesting adoptable. Firms adopting mechanical harvesting will need capital to invest in the machinery, but should be able to increase their short run capital requirements.

Similarly, the sentiment for improved working conditions, benefits and higher wages will continue to provide incentives for packinghouse managers to substitute capital (equipment) for labor inputs.

4. Cost are rising faster and capital needs are increasing at more rapid rates. It seems clear that consumer prices will have to increase if grower revenues and handling firm's returns

are to be maintained at previous levels.

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## TBZ TOLERANCE CHANGED

The thiabendazole (TBZ) residue tolerance for citrus fruits in the USA has been increased from 2 parts per million (ppm) to 10 ppm and the tolerance for dried citrus pulp has been changed from 8 ppm to 30 ppm (Federal Register pp. 38226 and 38229, October 30, 1974). This change should be made on the table of citrus postharvest fungicides in Packinghouse Newsletter No. 65, Sept. 26, 1974.

We believe that this change will not affect Florida citrus packers or processors because the residues from TBZ, as it is now used commercially, are well below the old lower tolerances.

> Will Wardowski Extension Service

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### FIFTY CENTS A BOX LOSS ON GRAPEFRUIT AT 60% PACK-OUT?

In Newsletter #67, we said that a grower of white grapefruit with "average" costs and the state-wide average pack-out of 60% would lose about 50¢ a box at the prices then prevailing of \$2.50 per carton and \$1.00 per box for eliminations delivered in to the cannery. To our surprise, this item has occasioned some debate as apparently no one considers himself to be average.

Any such "average" figures are to a great extent hypothetical as no one knows all the state-wide costs and returns for every operation at any given time. By the time representative costs have been collected and averaged, they are already out of date in these times of "double digit inflation."

As for everyone else, our initial industry-wide cost figures came from the reports published annually by the IFAS Food and Resource Economics Department\*. For packing and selling, and for pick and haul, the 1972-73 figures were available. For growing costs only, the 1971-72 figures were available and such production costs are lumped together for oranges and grapefruit, with oranges predominant. With this to go on, we derived our "1974-75 figures" thus (rounding values to the nearest cent):

### Growing cost

For growing "citrus" i	n 1971-72 · · · ·	• •	• • • • • •	•	• •	• •	•	۰ .	• •	\$1.05
Less 15% as adjustment	for higher yield	s of	grapefruit	•				• •	• •	\$0.89
Plus 30% for inflation	since 1971-72 ·	• •	• • • • • •	•	••	• •	• •	• •	• •	\$1.16

Brooks, D. L. Citrus production costs and returns in Florida, 1971-72. Economics Report 54, September 1973, page 9.

Sherrod, W. H., A. L. Ward and A. H. Spurlock. Costs of picking and hauling Florida citrus fruits, 1972-73. Economics Report No. 60, April 1974, page 9.

fresh citrus fruits, 1972-73 season. Economics Report No. 61, April 1974, pp. 12 and 13.

Pick and haul 1972-73 cost Plus 25% for inflation since																			
<u>Packing and Selling</u> 1972-73 cost	• • •		•	•	•	 •	•	•	•	•	•		•	•	•	•	•	• •	\$2.01
Plus 25% for inflation since	1972-	.73.	•	•	•	 •	•		•	•	•	•	•	•	•	•	•	•	\$2.51

### Handling eliminations through the packinghouse to cannery

This is the one that always causes controversy. Some houses allocate nothing! We take the cost of handling fruit to be sold "bulk-in-truck" and subtract all those costs such as certain taxes, contract waxing, etc. that do not apply. (Even then it could be argued that this value is low because the total cost of grading should really be put against the eliminations as it is the proportion of eliminations that determines the number of graders needed). Then:

1972-73 <b>a</b> djusted																					
Truck to cannery	• • •	• • •	• • • •	٠	•	• •	٠	•	•	•	•	•	•	•	• •	•	•	•	•	•	<u>\$0.10</u>
														^	•						\$0.61
Plus 25% for inf	l <b>ati</b> on	since	1972-73	•	•	••	•	•	• •	•	•	•	•	•	••	•	•	•	•	•	\$0.76

# Note

A higher inflation rate was used for pick and haul and for packinghouse costs than for growing costs because of the disproportionate rise in costs of labor and materials.

Then putting this all together we have:

Item	Sold F.O.B. packinghouse (2 cartons)	Eliminations delivered in <u>to cannery</u>					
owing cost	\$1.16	\$1 <b>.16</b>					
ick and haul	0.93	0.93					
acking and selling	2.51						
liminations through house to cannery		0.76					
Total costs	\$4.60	\$2.85					
rice received	5.00	1.00					
NET RETURN	+ \$0.40	- \$1.85					

Using the above figures, net return on 100 boxes at 60% pack-out:

40 boxes at -\$1.85 = -\$74.0060 boxes at +\$0.\$0 = + 24.00Net return -\$50.00

or a loss of 50¢ per box delivered in.

Probably no individual set of costs will match the above exactly, but this will make it possible to make comparisons with what we believe to be reasonably representative figures. We suggest that one point should be approached with particular caution. Our method for deriving cost of handling eliminations through the packinghouse is commonly disputed. However, no one has yet explained to us how they can handle a box of eliminations through receiving, degreening, washing, drying, grading and loading out any cheaper then the same operations for bulk-in-truck fruit. When such "concealed costs" are not correctly allocated, they proportionately reduce the net profit from the packed fruit. This in turn tends to confuse the critical issue of how much can profitably be spent to raise pack-out.

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