

Agricultural Extension Service
 University of California
 San Diego County

Donald O. Rosedale
 Farm Advisor
 Bldg. 4, 5555 Overland Ave.
 San Diego, California 92123

SAMPLE COSTS TO PRODUCE **LEMONS** IN SAN DIEGO COUNTY

Cost assumptions based on: A 20-acre orchard, 100 trees per acre, 20 years old, frost free, portable sprinkler irrigation, gentle slope. Conditions will vary considerably from one grove to another. Orchards on steep slopes cost considerably more to operate than those on gentle slopes. Inadequate drives and roadways increase costs. Frost hazard will require costly protection. Permanent irrigation systems may reduce labor costs somewhat and will require a higher initial investment.

CULTURAL OPERATIONS

	<u>Sample Costs per Acre</u>		
	<u>Mat'l & Equipment</u>	<u>Labor</u>	<u>Total</u>
Fertilize - - - - -	\$ 45.00	7.00	52.00
Irrigate - - - - -	130.00	32.00	162.00
Pest Control, Minor Elements - - - - -	53.00		53.00
Other Pests, snails, gophers, ants - - - - -	16.00	12.00	28.00
Weed Control - - - - -	17.00	10.00	27.00
Pruning, brush removal, contract - - - - -		150.00	150.00
Remove and Plant Trees - - - - -	5.00	20.00	25.00
Misc., Disease Control, etc. - - - - -	3.00	15.00	18.00
Sub-Total -	\$269.00	\$246.00	\$515.00

CASH OVERHEAD

Taxes - - - - -	65.00
Maintenance & Repair, Irrigation System and Equipment - - - - -	37.00
General Expense and Management - - - - -	67.00
Sub-Total - - - - -	\$169.00

TOTAL PRE-HARVEST CASH COSTS - - - - - \$684.00

INVESTMENT OVERHEAD

Depreciation - - - - -	183.00
Interest on Investment - - - - -	250.00
Sub-Total - - - - -	\$433.00

TOTAL PRE-HARVEST COSTS - - - - - \$1117.00

TOTAL PRE-HARVEST CASH COSTS, PLUS DEPRECIATION - - \$867.00

INVESTMENT OVERHEAD PER ACRE

Depreciation and interest on investment are included as overhead costs of investment. Depreciation is calculated from the following investment schedule:

	<u>Investment</u>	<u>Depreciation</u>
Trees	\$2500.00	\$100.00
Sprinkler System	270.00	27.00
Bldgs. & Equipment	560.00	56.00
TOTALS	\$3330.00	\$183.00

An annual charge for interest on investment is calculated at the current interest rate on the money invested in land, buildings, and equipment.

The total economic cost of producing lemons includes a charge for interest since the value of your capital should not be ignored in measuring orchard income, and for comparison with alternate use of resources. For management analysis, non-cash costs including interest and owner's labor should be included even though they are not considered as business expenses in accounting practice.

YIELD PER ACRE

Yield varies considerably among orchards, and from year to year. Commercial yields may range from 300 to 800 field boxes per acre. Excellent orchards under favorable conditions may produce more.

RETURNS

The average industry return pre-harvest (after picking and hauling deducted) for the five years, 1962 to 1966, was \$1.39 per field box. The price varied from \$.94 to \$2.05 during this period. It is apparent that returns depend greatly on the quality of the fruit (proportion shipped fresh) and on the yield, or quantity produced. Higher prices are associated with short crops.

BREAK-EVEN POINT

Break-even charts illustrate the interrelations of cost, price, and volume. Yield is on the horizontal axis and cost and returns are on the vertical axis. The total pre-harvest cost of \$1117 will require a yield of 803 field boxes to break even at an average return of \$1.39. The chart shows the spread between total income and total cost per acre at any yield level above or below the break-even point.

