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DEVELOPMENT COSTS

GREENHOUSE ROSES

Monterey and Santa Cruz Counties

August 1972

AGRICULTURAL EXTENSION

SANTA CRUZ COUNTY

UNIVERSITY OF CALIFORNIA

UC Cooperative Extension

TYPICAL COSTS OF DEVELOPING GREENHOUSE ROSES

Monterey and Santa Cruz Counties

August 1972

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SCOPE OF THE INDUSTRY

Cut flowers, cultivated greens and potted plants yielded an income of more than \$112 million in the State of California during 1971. This income was greater than for all other states. Florida was second with a reported wholesale income of \$26 million for the same year.

In Santa Cruz and Monterey Counties 14.2 million square feet of greenhouses were in production in March 1972. The major crop was carnations, which occupied 7.48 million square feet. Roses were planted in 3.2 million square feet in the same period, thus being the second major crop in Monterey Bay. Chrysanthemums, orchids, ferns, potted plants and propagation materials occupied the remainder of the greenhouses. The dollar wholesale income to growers for flower crops from the two counties was \$19.5 million in 1971. Most of the greenhouse crops from Monterey Bay are exported to other parts of the United States by air freight.

CONDITIONS OF THE COST STUDY

The following data are composite figures gathered from a representative group of Monterey and Santa Cruz County rose growers. We assumed that the rose planting was to be maintained for a four-year period as need for plant replacement and new varieties develop.

The cost study is divided into three sections. Section 1 lists typical costs of developing greenhouse roses during the 52 days from planting to harvest of the first crop when pinching of the plants is not used. Days to harvest vary with cultural practice, greenhouse temperature, and condition of the plants. A 52-day period is an average figure for conditions encountered by most Monterey Bay growers.

Section 2 includes the materials and services, plus the cash overhead cost encountered in producing the crop.

Section 3 summarizes the cost categories by two methods--on a square foot basis and on a per plant basis.

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TYPICAL COSTS OF DEVELOPING GREENHOUSE ROSES

MATURITY PERIOD 52 DAYS

Monterey - Santa Cruz Counties
August 1972

SECTION I

10,000 sq. ft. unit - 5,000 plants - labor \$2.25 per hour

Production Practices	Man Hours	Costs 10,000 sq. ft.
<u>Preparing soil & planting</u>		
Plant removal	57.75	\$129.94
Turn soil	7.20	16.20
Tractor and tiller (\$3.00/hr. X 7.2 hrs.)		21.60
Sterilize	29.25	65.81
Level, rake and mark	11.40	25.65
Add soil amendment (sawdust)	30.60	68.85
Plant	56.00	126.00
Watering (once every 5 days)	1.50	3.38
<u>Staking, tying & pinching</u>		
Rewire and cage	11.00	24.75
<u>Pest & disease control</u>		
Spider mites, aphids, thrips & mildew	4.80	10.80
<u>Fertilization & ventilation</u>		
	.20	.45
Supervision--3% of total man-hours @ \$3.50/hr.	<u>6.29</u>	<u>22.02</u>
TOTAL LABOR AND EQUIPMENT COSTS	215.99	\$515.45

SECTION II

COST SHEET - ROSES

<u>Materials and Services</u>	<u>Costs per 10,000 sq. ft.</u>
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Plants 5,000 (4,000 #1 @ \$.80 + 1,000 #2 @ \$.56 + sales tax)	\$3,948.00
Power, heat & lights	100.00
Gas for sterilizing	40.00
Sawdust (80 yards)	144.00
Superphosphate, 500 lbs. (20%)	15.00
Insecticides	36.00
Fertilizer	42.00
Soil testing	8.00
Sterilizing cover materials	1.00
Downspout or sterilizing pipe	<u>-----</u>
Total cost of materials and services	\$4,334.00

General Expenses

Office, phone, car & interest on operating capital	290.97
Taxes (2 months)	70.00
Insurance (2 months)	12.00
Repairs on equipment (2 months)	<u>30.00</u>
Total cash overhead costs	\$ <u>402.97</u>
Total Cash Costs	\$5,252.42
Less hazard & risk--1/2 cost of plants X 10%	<u>- 197.40</u>
Total	\$5,055.02
Depreciation on equipment & greenhouse for 52-day period	204.00
Interest on average investment on equipment and greenhouse for 52-day period	<u>93.00</u>
TOTAL ALL COSTS	\$5,352.02

SECTION III

SUMMARY

	<u>Per Sq. Ft.</u>	<u>Per Plant</u>
Cultural Cost	.0515	
Materials & services	.4334	
Cash overhead	.0403	
Less hazard & risk	-.0197	
Depreciation	.0204	
Interest on Investment	<u>.0093</u>	
Total Replacement Cost	\$.5352	\$1.070

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