

1972 ✓

GF-SI-72
MARSH GRAPEFRUIT

COACHELLA VALLEY, RIVERSIDE COUNTY -- 1972

Sample Costs of Production

Based on an 80-acre orchard (75 trees/acre); yield of 800--50 lb. field boxes, with a packout of 700--37.5 lb. cartons and 13,750 lbs. of by-products fruit; professional management using permanent employees with combined labor rate of \$3.70/hour including all costs of supervision, transportation, insurance, etc; tractor with implement @ \$3/hour; weed control by cultivation.

Operation	Hours/ Acre	Labor Cost	Equip- ment Cost	Materials Kind	Cost	Total Costs	
						per Acre	per FB
Irrigate 16 X	16	\$ 59		8' water	\$27	\$ 86	\$.11
Cultivate 3 X	6	22	\$18			40	.05
Fertilize 1 X (contract)				3 T Chicken M	20		
				300 lb. Urea	14	34	.04
Pest Control 2 X (contract)	1	3	3	Phosphamidon	9	15	
	1	4	4	S, Zn, Mn, Urea	8	16	
Citrus Pest Control District (red scale)						5	
Pruning, every 3rd year, costs prorated by years (contract)	25	50					
Brush Chopping (contract)			10			60	.08
Disease Control & Insp.	1.5	6				6	
Pipeline Maintenance	1.0	4				4	
Drainage Maintenance	2.0	7				7	
Miscellaneous Maintenance	1.0	4				4	
Management						45	.06
Total Cultural Cost	54.5	\$159	\$35		\$78	\$322	\$.40
County Taxes						\$ 75	\$.09
TOTAL PRE-HARVEST CASH COSTS						\$397	\$.50
Picking, Packing, Hauling, Selling @ \$1.35/FB						\$1080	\$1.35
		Investment*	Depre- ciation	Interest			
		per Acre	per Acre	@ 7%			
		Life		per Acre			
Land	\$ 928			\$ 65			
Irrigation Pipe	200	20 yr.	\$10	7			
Trees	1352	25 yr.	54	47			
Total Overhead	\$2480		\$64	\$119		\$ 183	\$.23
TOTAL COST OF PRODUCTION						\$1660	\$2.08

*Real Estate Investment based on Riverside County Assessor's Appraised Value (not replacement value).

GRAPEFRUIT PRODUCTION
COACHELLA VALLEY -- Riverside County

This cost data sheet is based on an 80-acre Marsh Seedless grapefruit grove in full production. It can be used as a guide in thinking of costs of growing the other citrus varieties including tangerines, tangelos, Valencias and lemons with certain variations typical of the variety. For instance tangerine trees don't grow as large so pruning costs are probably less. Lemons being more vigorous will probably require more pruning. We have assumed our grapefruit grove did not require frost protection. Most Valencias, Temple oranges, etc. would require it which could be a considerable additional expense. Routine cultural costs would be similar for all varieties.

ACREAGE AND OUTLOOK: Acreage of all citrus varieties in Coachella Valley has been on a rapid increase, although recently at a decreasing rate. There are almost 19,000 acres of citrus with 8,300 acres being planted to grapefruit. Fifteen hundred of these were young enough to be considered non-bearing in 1971. Ninety-nine acres were planted in that year. Returns for grapefruit and lemons have been good and the future looks promising. There is currently an oversupply of oranges and tangerines and returns have been less satisfactory.

IRRIGATION: Most groves are flood or furrow irrigated. A few recent plantings on high ground where the soil is sandy have utilized low volume sprinklers. Irrigation runs are short, preferably not more than 330' and preferably with no slope down the irrigation run. Rapid application of the water is most efficient in the use of both labor and water.

DRAINAGE: Salinity and high water table are not tolerated well by citrus. Drains are installed sufficient to hold the water table at five feet from the surface or deeper. Flood irrigation to cover a large part of the ground surface is helpful in reducing salinity levels in the soil.

FERTILIZATION: About 200 lbs. of actual nitrogen are needed per acre. It should all be applied in the winter for maximum set of fruit. Occasional groves will respond to phosphate especially on sandy soils where no manure has been used. Chicken or steer manure, ammonium nitrate, ammonium sulfate and urea are the most commonly used nitrogen fertilizers.

WEED CONTROL: Soil sterilant type chemicals are not recommended for the sandy soils of Coachella Valley. Weed oil and Paraquat are used in some non-tilled groves, especially those young groves developed on clean soil not previously farmed. On weedy ground, tillage seems most economical. When the trees reach maturity and shade the ground, weeds are not particularly troublesome. Where cross furrows are used, these must be broken down and re-formed for harvest, spraying and applying fertilizer.

PESTS AND DISEASES: Thrips are the only insect pest of general importance. Most groves are sprayed at petal-fall to protect the young fruit. Cottony-cushion scale may be troublesome. It is usually held in check by predators and for this reason insecticides are used for thrips that are least damaging to them. Mites may require treatment in certain groves. Sulfur dusts or sprays in the early spring are usually sufficient to control Yuma mite.

Root or collar rot is the most serious disease of citrus, occasionally killing out entire groves. Preventative measures including careful irrigation are most effective against it. Where the disease gets started trunks should be inspected yearly and treated if required.

Gophers are a constant menace and should be trapped or poisoned.