

1983

SAMPLE PRODUCTION COSTS

COSTS OF PRODUCING SANTA ROSA PLUMS (EARLY SEASON)

Tulare, Fresno & Kings Counties

by

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Costs given in this sample study are for those of a typical well managed orchard and are not intended to reflect an average of all orchards in Tulare, Fresno and Kings Counties.

This study is based upon a 10 acre block out of a 40 acre total fruit orchard. The same machinery, pump and some other costs are shared on the whole orchard.

Practices listed are based on those considered typical production procedures. Sample costs given for labor, materials, equipment and contract services are based on 1983 figures. Interest and depreciation are based upon the cost of new equipment and recent land purchases. Some costs or practices listed in this study may not be applicable to your situation. The study is intended as a guide only.

For explanation of calculations used for the study refer to the attached cost estimate assumptions or call Agriculture Economics Extension, University of California, Davis, California (916) 752-3563.

10 acres of a 40 acre orchard - 108 trees/acre  
 Furrow Irrigation: 44 ac.in. total 50% district water, 50% well water  
 Land owner basis Yield: 400 cartons/acre (27 lbs/carton)

Cost Estimate Assumptions:

## 1. Prune in January:

Labor - 30 min/tree x 108 trees/acre ( ÷ 60 min/hr) = 54 hrs/acre  
 54 hrs/acre @ \$5.25/hr = \$283.50/acre  
 Brush shredding - contract \$10.00/acre

## 2. Pest control:

Jan: Basic zinc

3 lb/100 gal or water x 5 (for 500 gal/acre) @ .60/lb = \$ 9.00/acre

Spray oil

1 gal/100 gal of water x 5 (for 500 gal/acre) @ 3.50/lb = 17.50/acre

Parathion (25wp)

2 gal/100 gal of water x 5 (for 500 gal/acre) @ 1.25/lb = 12.50/acre

Total dormant materials (1 application) \$39.00/acre

Dormant spray to control San Jose scale, peach twig borer, mealy plum  
 aphid and zinc deficiency.

Jul: Miticide 1 lb/acre @ \$20.00/lb

Total materials for 2 applications = \$59.00/acre

Application - speed sprayer, 500 gal pulled by 65hp diesel tractor

- 1 pass in orchard each application

## 3. Furrow in March, May, July:

Furrower, 2 shovel pulled by 65hp diesel tractor - 1 pass in orchard each month

March prior to frost

May after thinning

July weed control

## 4. Thin fruit in May:

Labor - 59.4 hrs/acre @ \$5.25/hr = \$311.85/acre

## 5. Disc in May, July, October:

Offset disc pulled by 65hp diesel tractor - 1 pass in orchard each month

May before furrowing

July before furrowing

October before pruning

## 6. Fertilize in September:

Materials - 1 lb N/tree x 108 trees/acre @ \$.34/lb = \$36.72/acre

Application - contract \$3.50/acre

## 7. Tree topping in September:

Contract \$25.00/acre

## 8. Weed control in May-September and December:

May-Sept: Labor (hoeing and touch up spraying) 1 hr/ac @ \$5.25/hr = \$5.25/acre  
 Materials - additional spray

December: Materials pre-emergence herbicide \$12.00/acre

Application - contract \$7.00/acre

9. Irrigation:

Furrow irrigation system includes:

Pipeline	\$300/acre x 40 acres	\$12,000
Well, 120 ft, 10-12" casing		<u>2,300</u>
		\$14,300

Pump: 15hp, 70 ft lift, 450 gal/min = 1.0 ac.in./hr, \$7,900

Irrigation labor - 1 hr/application/acre

9 irrigations - 44 ac.in. total:      22 ac.in. district water  
    22 ac.in. well water

District water cost:      \$14.00/acre

First irrigation or two is well water, district water used until unavailable, then well water for balance of season.

		well	district
April	1x	4.0	
May	1x	4.0	
June	2x		11.0
July	2x		11.0
August	2x	10.0	
September	1x	<u>4.0</u>	
Total ac.in.		<u>22.0</u>	<u>22.0</u>

An irrigation in March is possible for frost protection.

10. Misc. labor:

4 hrs/acre @ \$5.25/hr = \$21.00/acre  
 1/3 hour charged each month for 12 months

11. Pickup: 25 miles/acre/month

12. Harvest in June:

Yield: 400 packed cartons/acre (28 lbs/carton)

Price: \$9.50/carton (based on 1979 and 1980 prices)

Contract harvest

Pick: \$1.17/carton x 400 cartons/acre = \$468.00/acre

\$35/bin for a 30 carton packout - which represents 16% cullage

Haul: \$ .10/carton x 400 cartons/acre = \$ 40.00/acre

Misc. harvest labor: 4 hrs/ac @ \$5.25/hr = \$ 21.00/acre

Packing charges: \$2.35/carton

Selling charges: 10% of gross sales price = \$.95/carton

13. Labor rates include benefits

Machinery operators \$5.90/hr

Irrigators \$5.90/hr

Misc. Labor \$5.25/hr

14. Buildings and equipment:

Farm shop 1500 sq ft. @ \$12/sq.ft. \$18,000

Tools and shop equipment \$12,285

Proportion allocated to Stone Fruit Orchard = 25% of above

15. Land owned:

Land value \$5500/acre Land tax \$55.00/acre

16. Bookkeeping and misc. office: 2.5% of total variable costs

17. Machinery costs calculated by computer:

For self-propelled machinery and implements, the width, speed, field efficiency and number of passes in the orchard are all used in determining the number of hours necessary to complete an operation. Tractor hours are then calculated by taking into consideration all implements pulled.

Per hour cost of depreciation, interest, taxes, insurance, repairs, fuel, and lube are calculated by the computer using purchase price, annual hours of usage, years of life, etc. and this rate is multiplied by the total hours of usage for each machine and equipment.

18. Establishment costs per acre:

25 year life of trees assumed.

Establishment costs were calculated in the four budgets for establishing a stone fruit orchard:

Establishment year 1	Budget Record #256	\$ 2370.77
year 2	#257	1378.60
year 3	#258	1526.02
year 4	#259	3019.51
- year 4 income		<u>-1850.00</u>
		\$ 6440.90

The establishment costs are divided by 25 years and the depreciation and interest costs are shown in each of the production years.

