

1986
SAMPLE STONE FRUIT ESTABLISHMENT COSTS
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 1986 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.

ESTABLISHMENT COST ASSUMPTIONS:

108 trees/acre

Furrow irrigation: 50% district water, 50% well water
Land owner basis

1. Land Preparation in October:

Contract land leveling (laser) \$125.00/acre
Contract chiseling \$ 60.00/acre

2. Fumigate soil for nematodes in October:

Fumigation often done at the same time as chiseling.
Materials: soil fumigant 40 gal/ac @ \$7.50/gal = \$350/acre
Application - contract \$17.00/acre

3. Disc in October and November:

Year 1: Disc and float- .63 hours of labor and machinery
4 times per year = \$40.00/acre
Years 2-4: Disc only- .63 hours of labor and machinery
3 times per year = \$25.00/acre

4. Plant in February:

Year 1:

Trees, non-patented variety (1/2 inch) 108 trees/acre
@\$3.50/tree = \$378.00/acre
(Add approximately \$1.75/tree for royalty if patented
variety)
Contract labor, 108 trees/acre @ \$.75/tree = \$81.00/acre
hand done (not machine planting)
Painting: Materials- \$5.00/acre, Labor- 1 hr/acre @
\$5.50/hr = \$10.50/acre

Year 2:

Replant in February 2 trees/acre @ \$3.50/acre = \$7.00/acre
Contract labor, \$2.00/acre

5. Prune and Train:

Calculated for 108 trees/acre with a labor rate of \$5.50/hr

Year	Minutes/Tree	Hrs/Acre	Cost/Acre
2	2	3.6	\$19.80
3	5	9.0	\$49.50
4	15	27.0	\$148.50

6. Brush Disposal:

Years 3 and 4: Contract @ \$12.50/acre

7. Furrow in March, May, July:

3 times each year, for .57 hour each time = \$20/acre

8. Fertilize:

Calculated for 108 trees/acre, with N @ \$.40/lb and a contract application cost of \$4.25/acre per application.

Year	Lbs of N Per Tree	Material Cost/Acre	# Appli- cations	Total Material Cost/Acre	Application Cost/acre
1	.125	\$5.40	May(1)	\$5.40	\$4.25
2	.250	\$10.80	May&Dec(2)	\$21.60	\$8.50
3	.375	\$16.20	May&Dec(2)	\$32.40	\$8.50
4	.340	\$14.69	May(1)	\$14.69	\$4.25
4	.660	\$28.51	Oct(1)	\$28.51	\$4.25

9. Irrigation:

Furrow irrigation system includes:

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

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

Irrigation labor - 1 hr/application/acre 9 x per year
District water cost: \$15.00/acre 100% rights

Year	Acres Inches
1	10
2	14
3	28
4	36

10. Pest Control:

Materials:

July: Miticide - @ \$25.00/lb

Jan.: dormant spray materials to control San Jose scale, peach twig borer, peach leaf curl, mealy plum aphid, zinc deficiency and over wintering mite eggs.

Basic Zinc: 3 lb/100 gal of water @ \$.70

Spray oil: 1 gal/100 gal of water @ \$2.70

Parathion (25wp): 2 lb/100 gal of water @ \$1.00/lb

Basic copper: 4 lb/100 gal of water @ \$1.35/lb

Year	Season	Materials	Amounts/Acre	Cost/acre	Applic. Cost/Ac
1	July	Miticide	.25 lbs	\$6.25	\$7.00
2	Dormant	Basic Zinc	3 lbs/100 gal water x 1.25 (125 gal/ac)	\$2.63	
		Spray Oil	1 gal/100 gal water x 1.25 (125 gal/ac)	\$3.38	
		Parathion	2 lbs/100 gal water x 1.25 (125 gal/ac)	\$2.50	
		Basic Copper	4 lbs/100 gal water x 1.25 (125 gal/ac)	\$6.75	
	July TOTALS:	Miticide	.25 lbs	<u>6.25</u>	\$12.00
				\$21.51	
3	Dormant	Basic Zinc	3 lbs/100 gal water x 2.50 (250 gal/ac)	\$5.25	
		Spray Oil	1 gal/100 gal water x 2.50 (250 gal/ac)	\$6.75	
		Parathion	2 lbs/100 gal water x 2.50 (250 gal/ac)	\$5.00	
		Basic Copper	4 lbs/100 gal water x 2.50 (250 gal/ac)	\$13.50	
	July TOTALS:	Miticide	.5 lbs	<u>12.50</u>	\$12.00
				\$43.00	
4	Dormant	Basic Zinc	3 lbs/100 gal water x 4.0 (400 gal/ac)	\$8.40	
		Spray Oil	1 gal/100 gal water x 4.0 (400 gal/ac)	\$10.80	
		Parathion	2 lbs/100 gal water x 4.0 (400 gal/ac)	\$8.00	
		Basic Copper	4 lbs/100 gal water x 4.0 (400 gal/ac)	\$21.60	
	July TOTALS:	Miticide	.8 lbs	<u>20.00</u>	\$24.00
				\$68.80	

11. Weed Control

Labor: \$5.50/hr Materials: Roundup or Paraquat

Year	Season	Labor and Appli- Cation Costs/acre	Material Cost/acre	Total Cost/acre
1	May-Sep	3 hrs = \$16.50	\$7.50	\$24.00
2	May-Sep	1 hr = \$5.50	\$7.50	\$13.00
	Dec	contract = \$7.00	\$12.00	\$19.00
3	May-Sep	1 hr = \$5.50	5.00	\$10.50
	Dec	contract = \$7.00	\$12.00	\$19.00
4	May-Sep	1 hr = \$5.50	7.50	\$13.00
	Dec	contract = \$7.00	12.00	\$19.00

12. Labor Rates Include benefits

Machinery Operators \$6.50/hr
 Irrigators \$6.50/hr
 Field Labor \$5.50/hr

13. Buildings and Equipment:

	40 Acres	Per Acre
Farm shop 1500 sq ft. @ \$12/sq ft. =	\$18,000	\$450.00
Tools and shop equipment	12,285	\$307.13

14. Land owned:

Land value \$5500/acre Land tax \$55/acre
 County taxes: \$71.34 (1% of land and equipment costs)

15. Bookeeping and misc. office: \$100/acre

16. Machinery costs: