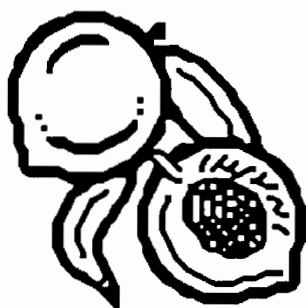


**SPRINGCREST PEACHES**  
**SOUTHERN SAN JOAQUIN VALLEY**  
**1986**



**University of California**  
**Cooperative Extension**

1986

**SAMPLE PRODUCTION & ESTABLISHMENT COSTS FOR SPRINGCREST PEACHES  
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	Acre 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:

PRODUCTION COST ASSUMPTIONS FOR SPRINGCREST PEACHES:

1. Prune in January:  
Labor - 42 min/tree x 108 trees/acre (/60 min/hr) = 75.6 hrs/acre  
75.6 hrs/acre @ \$5.50/hr = \$415.80/acre  
Brush shredding - contract \$12.50/acre
2. Pest Control:  
  
Jan: Basic zinc  
3 lbs/100 gals of water x 5 (for 500 gals/acre) = \$10.50/acre  
  
Spray oil  
1 gal/100 gals of water x 5 (for 500 gals/acre) = \$13.50/acre  
  
Parathion  
2 lbs/100 gals of water x 5 (for 500 gals/acre) = \$15.00/acre  
  
Basic copper  
4 lbs/100 gals of water x 5 (for 500 gals/acre) = \$27.00/acre  
  
Total dormant materials (1 application) = \$66.00/acre  
  
Dormant spray to control San Jose scale, peach twig borer, peach leaf curl, zinc deficiency and overwintering mite eggs.  
  
July: Miticide 1 lb @ \$25/lb = \$25.00/acre  
  
Application - speed sprayer, 500 gals pulled by 65 hp diesel tractor, 1 pass in orchard each application. Contract @ \$25/acre.
3. Tie limbs in February:  
Labor and materials, 108 tree/acre @ \$.80/tree = \$86.40
4. Furrow in March, May, July:  
Furrower, 2 shovel pulled by 65 hp diesel tractor - 1 pass in orchard each month.  
March prior to frost  
May after thinning  
July after discing
5. Thin fruit in April:  
Labor - 91.8 hrs/acre @ \$5.50/hr = \$504.90/acre
6. Girdle limbs in April:  
9.75 hrs/acre @ \$5.50 = \$53.63/acre
7. Fertilize in May and September:  
Materials May: .5 lbs N/tree x 108 trees/ac @ \$.40/lb = \$21.60/ac  
Sept: .75 lbs N/tree x 108 trees/ac @ \$.40/lb = 32.40/ac  
Total materials \$54.00/ac  
  
Application - contract \$4.25/ac x 2 applications = \$8.50/ac

8. Disc in May, July, October:  
 Offset disc pulled by 65 hp diesel tractor - 1 pass in orchard each month  
 May before furrowing  
 July before furrowing  
 October before pruning

9. Irrigation:

Furrow irrigation system for 40 acres includes:  
 Pipeline \$275/acre x 40 acres plus \$14,300  
 Well, 120 ft, 10-12" casing 7,900  
 Pump: 15 hp, 70 ft lift, 450 gal.min = 1 ac.in/hr \$22,200

District water cost: \$15/acre Well water cost: \$17/acre

Irrigation labor - 1 hr/application/acre

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

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

		<u>Well</u> acre Inches	<u>District</u> acre Inches
April	1x	4	
May	1x	4	
June	2x		11
July	2x		11
August	2x	10	
September	1x	4	
Total ac.in.		22	22

An irrigation in March is possible for frost protection

10. Herbicide and Weed control in May-September and December:

May-Sept: Labor (hoeing and touch up spraying) and materials (additional spray) = \$10/acre

December: Materials, pre-emergence herbicide, \$15.00/acre  
 Application - contract \$ 7.00/acre

11. Misc Labor:

1 hr labor/acre @ \$5.50/hr + \$7.00 fuel and repair = \$12.50/acre

12. Pickup: 300 miles/acre/year



13. Harvest in June:  
 Contract harvest, 650 lugs/acre  
 Pick: \$1.00/lug = \$650.00/acre  
 Haul: \$.10/lug = \$65.00/acre  
 Packing charges: \$2.45/lug = \$1592.50/acre  
 Selling charges: \$.75/lug = \$487.50/acre  
 Misc. Labor: \$15.00/acre

14. Labor rates include benefits:  
 Machinery operators: \$6.50/hr  
 Irrigators: 6.50/hr  
 Misc. Labor: 5.50/hr

15. Buildings and equipment

	<u>40 acres</u>	<u>Per acre</u>
Farm shop = 1,500 sq.ft. @ \$12/sq.ft.	\$18,000	\$450.00
Tools and shop equipment	12,285	\$307.13

16. Land owned:  
 Land value \$5,500/acre      Land Tax = \$55  
 County tax = \$71.34 (1% of land plus equipment costs)

17. Bookkeeping and misc office: \$100/acre

18. Equipment costs:

In allocating the equipment costs per acre, the following calculations were made: (a) "Original Cost" of equipment is the new cost including sales tax. (b) "Depreciation" is the new cost per acre divided by the years of life. (c) "Interest" on investment is figured as one-half of the new cost per acre multiplied by the interest rate. One-half of the new cost is the average value of the equipment during its useful life. (d) The investment per acre used in the cost study is calculated at 60% of the depreciation and interest costs for all new equipment to reflect a mix of new and used equipment.

19. Establishment costs per acre:  
 20 year life of trees assumed.

Establishment	Year 1	\$2451	
	Year 2	1602	
	Year 3	1741	
	Year 4	<u>1347</u>	adjusted for credit from pro-
		\$7141	duction

The establishment costs are divided by 20 years. Interest on investment is calculated at 13%. The annual costs of investment in the trees are:

depreciation:	\$114.07
Interest:	\$106.21

**Stone Fruit Orchard Establishment Costs**  
**Southern San Joaquin Valley - 1986**  
**Cost Analysis Work Sheet**

Costs are for an orchard planted with 108 trees per acre. A furrow irrigation system is used.

Skilled Labor \$ 6.50  
 Field Labor \$ 5.50

YEAR	-----Costs Per Acre-----			
	1st	2nd	3rd	4th
YIELD: cartons of fruit per acre	---	---	---	267*

**CULTURAL COSTS:**

Land Preparation: Land Level contract	125			
Chisel: contract	60			
Soil Fumigant	317			
Disk and Float: 4 hours	40			
Disk : 3 hrs		25	25	25
Trees: 108 @ \$3.50 (+2 2nd yr)	378	7		
Survey and Plant: 108 @ \$0.75	81	2		
Painting	11			
Prune and Train (skilled hand labor)		20	50	149
Brush Disposal			13	13
Furrowing	20	20	20	20
Spray: weed control	24	32	30	32
Irrigation: 9 hrs. labor	59	59	59	59
Water: District water @ \$15/acre	15	15	15	15
Well water @ \$17/ac ft	7	10	20	26
Fertilizer: Nitrogen \$.40/Lb.	5	22	32	43
Contract application	4	9	9	9
Spray: pest control materials	6	22	43	69
Custom application	7	12	12	24
Misc. labor and power, 1hr. labor and tractor	11	11	11	11
<b>TOTAL CULTURAL COSTS</b>	<b>1170</b>	<b>264</b>	<b>338</b>	<b>493</b>

**HARVESTING COSTS:**

Pick, Haul, Pack, and Sell*				1150
<b>TOTAL HARVESTING COSTS</b>				<b>1150</b>

\* The yield and harvesting cost represents fourth year figures for Laroda plums. Other stone fruit's figures may vary substantially.

YEAR	1st	2nd	3rd	4th
<b>OVERHEAD COSTS:</b>				
County taxes	71	71	71	71
Office and Business Costs	100	100	100	100
<b>TOTAL OVERHEAD COSTS</b>	<b>171</b>	<b>171</b>	<b>171</b>	<b>171</b>
<b>TOTAL CASH COSTS</b>				
	1341	435	509	1815
<b>ACCUMULATED CASH COSTS</b>	<b>1341</b>	<b>1777</b>	<b>2286</b>	<b>4100</b>
<b>DEPRECIATION:</b>				
Building, equipment, and Irrigation system	114	114	114	114
<b>INTEREST ON INVESTMENT @ 13%:</b>				
Building, equipment, and Irrigation system	106	106	106	106
Land \$5500	715	715	715	715
Interest in accum. cash cost	174	231	297	533
<b>TOTAL INTEREST ON INVESTMENT</b>	<b>996</b>	<b>1052</b>	<b>1118</b>	<b>1354</b>
<b>TOTAL COST FOR THE YEAR</b>	<b>2451</b>	<b>1602</b>	<b>1741</b>	<b>3283</b>
<b>CREDIT FOR PRODUCTION</b>				<b>1936</b>
<b>NET COST FOR THE YEAR</b>	<b>2451</b>	<b>1602</b>	<b>1741</b>	<b>1347</b>
<b>ACCUMULATED NET COST</b>	<b>2451</b>	<b>4053</b>	<b>5794</b>	<b>7141</b>

**SAMPLE COSTS TO PRODUCE SPRINGCREST PEACHES**

Early Season

Tulare, Fresno & Kings Counties-1986

Labor rate \$6.50 /hr. skilled labor

\$5.50 /hr. field labor

Yield: 650 lugs of fruit per acre

Operation	Labor Hours per Acre	Cash and Labor Costs per Acre			Total Cost	Your Cost
		Labor	Fuel & Repairs	Materials		
		Kind and Quantity				
<b>Cultural costs:</b>						
Pruning	75.6	415.80			415.80	
Brush Disposal					12.50	12.50
Fertilizer				135 lbs. N @ .40/lb.	54.00	54.00
				Custom application (2x)	8.50	8.50
Furrowing	1.71	11.12	8.84			19.96
Discing	1.89	12.29	13.08			25.36
Tie and Materials				Contract: \$.80/Tree	86.40	86.40
Thinning	91.8	504.90				504.90
Girdling	9.75	53.63				53.63
Spray: Pest Control				Materials	66.00	66.00
				Custom application	25.00	25.00
Irrigation, 44 ac in	9	58.50	23.76	District water @ \$15/acre	15.00	97.26
				Well water @ \$17/ac ft	31.17	31.17
Herbicide				Materials and Applic.	22.00	22.00
Spray: weed control				Materials and Applic.	10.00	10.00
Miticide				Materials and Applic.	25.00	25.00
Misc.	1	5.50	7.00			12.50
Interest on operating capital @ 13%, for 6 months						95.55
<b>TOTAL CULTURAL COSTS</b>	<b>\$190.75</b>	<b>\$1,061.73</b>	<b>\$52.68</b>		<b>\$355.57</b>	<b>\$1,565.52</b>
<b>Harvest costs:</b>						
Contract Pick				\$1.00/lug		650.00
Contract Haul				\$.10/lug		65.00
Packing Charges				\$2.45/lug		1592.50
Selling Charges				\$.75/lug		487.50
Misc. Harvest Labor						15.00
<b>TOTAL HARVEST COSTS</b>						<b>\$2,810.00</b>
<b>Cash overhead:</b>						
Office and business costs						100.00
County Taxes						71.34
<b>TOTAL CASH OVERHEAD COSTS</b>						<b>\$171.34</b>
<b>TOTAL CASH COSTS</b>						<b>\$4,546.86</b>
<b>TOTAL CASH COST PER LUG</b>						<b>\$7.00</b>
<b>Investment</b>						
	Per Acre	Annual Cost				
		Depreciation	Interest @ 13%			
Equipment & buildings	1634.03	114.07	106.21			220.28
Trees 20 yr. depreciation	7141.00	357.05	464.17			821.22
Land	5500.00		715.00			715.00
<b>TOTAL INVESTMENT COSTS</b>	<b>\$14,275.03</b>	<b>\$471.12</b>	<b>\$1,285.38</b>			<b>\$1,756.50</b>
<b>TOTAL COSTS PER ACRE</b>						<b>\$6,303.35</b>
Cost per lug @ 650 lug yield						<b>\$9.70</b>

**MONTHLY SUMMARY OF  
SAMPLE COSTS TO PRODUCE SPRINGCREST PEACHES**

**Southern San Joaquin Valley - 1986**

Operation	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
<b>Cultural Costs:</b>													
Prening	416												\$416
Brush Disposal	13												\$13
Fertilizer					25				38				\$63
Furrowing			7		7		7						\$28
Discing					8		8			8			\$25
Tie and Materials		86											\$86
Thinning				585									\$585
Parathion				54									\$54
Spray: Pest Control	91												\$91
Irrigation, 44 ac in				14	14	29	29	29	14				\$128
Herbicide												22	\$22
Spray: weed control					2	2	2	2	2				\$10
Miticide							25						\$25
Miscellaneous	1	1	1	1	1	1	1	1	1	1	1	1	\$13
Int. on Operating Capital	34	6	1	37	4	2	5	2	4	1		1	\$96
<b>TOTAL CULTURAL COSTS</b>	<b>\$554</b>	<b>\$93</b>	<b>\$8</b>	<b>\$611</b>	<b>\$61</b>	<b>\$34</b>	<b>\$76</b>	<b>\$34</b>	<b>\$58</b>	<b>\$10</b>	<b>\$1</b>	<b>\$25</b>	<b>\$1,566</b>
<b>Harvest Costs:</b>													
Contract Pick						650							\$650
Contract Haul						65							\$65
Packing Charges						1,593							\$1,593
Selling Charges						488							\$488
Misc. Harvest Labor						15							\$15
<b>TOTAL HARVEST COSTS</b>						<b>\$2,810</b>							<b>\$2,810</b>
<b>Cash overhead:</b>													
Office/business costs	8	8	8	8	8	8	8	8	8	8	8	8	\$100
County Taxes				36								36	\$71
<b>TOTAL CASH OVERHEAD</b>	<b>\$8</b>	<b>\$8</b>	<b>\$8</b>	<b>\$44</b>	<b>\$8</b>	<b>\$8</b>	<b>\$8</b>	<b>\$8</b>	<b>\$8</b>	<b>\$8</b>	<b>\$8</b>	<b>\$44</b>	<b>\$171</b>
<b>TOTAL CASH COSTS</b>	<b>\$562</b>	<b>\$101</b>	<b>\$17</b>	<b>\$655</b>	<b>\$69</b>	<b>\$2,852</b>	<b>\$85</b>	<b>\$42</b>	<b>\$67</b>	<b>\$18</b>	<b>\$9</b>	<b>\$69</b>	<b>\$4,547</b>

STONE FRUIT ORCHARD  
Southern San Joaquin Valley - 1986

EQUIPMENT AND BUILDING LIST

ITEM	ORIGINAL COST	ANNUAL USE (ACRES)	COST PER ACRE	LIFE (YEARS)	OVERHEAD DEPRECIATION	INTEREST AT 13%	FUEL AND REPAIRS*
<b>Tractors:</b>							
65 HP wheel diesel	20000	40	500.00	15	33.33	32.50	4.91
Disk, offset	4000	40	100.00	15	6.67	6.50	2.01
Float	9500	40	237.50	15	15.83	15.44	2.28
Pickup, 1/2 Ton	10000	40	250.00	7	35.71	16.25	6.33
Sprayer	12500	40	312.50	15	20.83	20.31	4.96
Furrower	450	40	11.25	15	.75	.73	.26
Irrigation Pump	7900	40	197.50	25	7.90	12.84	2.49
Furrow Irrigation System	14300	40	357.50	10	35.75	23.24	.15
Tools, Shop Equip.	12285	40	307.13	15	20.48	19.96	
Buildings	18000	40	450.00	35	12.86	29.25	
<b>TOTAL COST</b>	<b>108935</b>		<b>2723.38</b>		<b>190.11</b>	<b>177.02</b>	
<b>60% OF NEW COSTS</b>	<b>65361</b>		<b>1634.03</b>		<b>114.07</b>	<b>106.21</b>	

\* Includes fuel, lube and repairs