

U.C. COOPERATIVE EXTENSION

SAMPLE COSTS TO ESTABLISH AND PRODUCE

PEACHES/NECTARINES

June Harvested Varieties

IN THE SOUTHERN SAN JOAQUIN VALLEY - 1992

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The detailed costs for establishment and production of June harvested peach and nectarine varieties in the Southern San Joaquin Valley are presented in this study. The hypothetical farm used in this report consists of 100 acres of which 5 acres are in peach and nectarine production.

Practices described in this study are based on those production procedures considered typical for this crop and area. Additional practices that are not listed may be required. Sample costs given for labor, materials, equipment and contract services are based on current figures. Some costs and practices detailed in this study may not be applicable to your situation. This study is only intended as a guide and can be used in making production decisions, determining potential returns, preparing budgets and evaluating production loans. A blank *Your Cost* column is provided to enter your actual costs on **Table 2, Sample Costs To Produce Peaches/Nectarines** and **Table 3, Details of Costs Per Acre to Produce Mature Peaches/Nectarines**.

This study consists of General Assumptions for Producing Peaches/Nectarines and seven tables.

Table 1.	Costs Per Acre to Establish A Peach/Nectarine Orchard
Table 2.	Costs Per Acre to Produce Mature Peaches/Nectarines
Table 3.	Details of Costs Per Acre to Produce Mature Peaches/Nectarines
Table 4.	Monthly Cash Costs Per Acre to Produce Mature Peaches/Nectarines
Table 5.	Annual Equipment, Investment and Business Overhead
Table 6.	Hourly Equipment Costs
Table 7.	Ranging Analysis

For an explanation of calculations used for the study refer to the attached General Assumptions or call the Department of Agricultural Economics, Cooperative Extension, University of California, Davis, California, (916) 752-3589 or call the farm advisor in the county of interest.

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**GENERAL ASSUMPTIONS FOR ESTABLISHING AND PRODUCING
PEACH/NECTARINES
June Harvested Varieties
Southern San Joaquin Valley - 1992
U.C. Cooperative Extension**

The following is a description of some general assumptions pertaining to sample costs of June harvested peach or nectarine establishment and production in the Southern San Joaquin Valley. The costs are based on typical cultural practices used by growers in this region, some of which may not be used during every production year. These costs are represented on an annual, per acre basis. *The use of trade names in this report does not constitute an endorsement or recommendation by the University of California nor is any criticism implied by omission of other similar products.*

1. LAND:

The farm consists of 100 acres of land. There are 5 acres being established in the actual mid season peach and nectarine orchard with another 90 acres on which other orchard and vine crops are grown and 5 acres of roads and farmstead. No other crops are grown. Land is valued at \$5,500 per acre and is not depreciated.

2. TREES:

No specific variety of peach or nectarine trees are assumed in this study, except those that are harvested in June. Peach varieties that might be planted include, but are not limited to; Flavorcrest, June Lady or Redtop. For nectarines, a partial list of varieties include; May Grand, Firebright, Summer Beaut or Red Diamond. The trees are planted at 16' X 18' spacings, with 151 trees per acre. The life of the orchard at the time of planting is estimated to be 20 years. The \$5.75 tree cost includes the cost of the royalty.

3. IRRIGATION:

Water for irrigation is pumped from a well. Price per acre foot for pumped water will vary from grower to grower in this region depending on various well characteristics and irrigation factors. In this study, water is pumped from a depth of 85 feet in a 150 foot well and is calculated to cost \$32.52 per acre foot. The amount of water used by the orchard during its establishment varies each year and is shown in **Table A** below.

Water is delivered to the orchard from the well through an underground pipe and flood valve system. The orchard is irrigated down furrows that are put up at the beginning of each growing season. No assumption is made about effective rainfall. The life of the system is estimated at 30 years. This irrigation system is installed before the orchard is planted.

Table A. Water Use For Establishment And Production Years

Year	Acre Inches/Year	Annual \$/Acre
1	20	54
2	24	65
3	30	81
4	36	98
5	44	119

4. ESTABLISHMENT PRACTICES:

This orchard is established on ground that was previously planted to deciduous trees or vines. Land preparation, preplant fumigation and tree planting are done by custom operators in the

first year. The young trees are not headed back nor pruned after planting. In the second year, 2 trees per acre are replanted, but there is no cost for the trees since many nurseries will provide replants free.

Berms are put up during the first year and sprayed to control weeds. The row middles are cultivated and furrowed for weed control and irrigation purposes throughout the life of the orchard.

Weed control for the orchard begins with a strip spray on the berms the first season and switches to a pre-emergent and spot sprays in the second. The spot spray is only used on 5% of the acreage. The middles are sprayed beginning with the first harvest in the third year.

Pest control does not start until the second year with a dormant season application. Both a bloom and worm spray are added in the third year to round out the pest control program.

Thinning also begins in the third year and the amount of time required for this operation increases as the yields increase. June harvested varieties are roped to prevent limb breakage beginning in the third year, but the limbs are not propped.

Nitrogen fertilizer is applied at increasing rates during the orchard establishment and is shown in **Table B** below. Zinc sulfate is also applied with the dormant spray at a rate of 5 pounds per acre in the first year and 10 pounds in each year thereafter.

Table B. Applied Nitrogen During Establishment Years

Year	Pounds/Acre
1	38
2	57
3	64
4+	151

Establishment cost is used to determine the non-cash overhead expenses, depreciation and interest on investment, during the production years. It is the sum of the costs for land preparation, planting, trees, cash overhead and production expenses for growing the trees through the first year that fruit is harvested. The Total Accumulated Net Cash Cost shown on **Table 1**, in the third year represents the establishment cost. For this study, this cost is \$2,654 per acre or \$13,270 for the 5 acre orchard. The establishment cost is spread over the remaining 17 years of the 20 years the orchard is in production.

5. PRODUCTION CULTURAL PRACTICES:

Pruning is done by hand in the winter months. Prunings are shredded by machine. Roping is finished in February, and fruit thinning is performed in April.

Nitrogen fertilizer is applied in summer/fall following harvest. In some instances nitrogen fertilizer may need to be applied in both spring and late summer. It is applied at a rate of 151 pounds of N per acre. Zinc sulfate is applied in the autumn at leaf fall at a rate of 10 pounds per acre.

Mature trees are cultivated by discing in the spring and fall. Furrows are drawn in the spring after discing to contain irrigation water. Weeds are controlled in row centers during the spring and summer by chemical mowing using low volume sprays. Weeds on the berms are controlled by pre-emergent herbicides.

A dormant spray is applied annually to control pests and diseases. In-season preharvest sprays are applied to protect the crop from such pests as oriental fruit moth, peach twig borer, leaf rollers, mites and fruit rot. Additional sprays to control thrips are only performed in nectarines.

The pesticides and rates mentioned in this cost study are a few of those that are listed in the UC IPM Peach/Nectarine Pest Management Guidelines. Cultural practices for the production of peaches and nectarines vary from grower to grower and region to region. The practices and inputs used in this cost study serve only as a sample or guide. Variations can be significant. For additional information contact the farm advisor in the county of interest.

6. HARVEST:

Harvesting starts in the third year after the orchard is planted. As the yields increase the cost to harvest also increases, until orchard maturity is reached in the sixth year. In this cost study the crop is harvested by the grower's picking crew using ladders and buckets supplied by the packing shed. The fruit is then hauled to the shed by a contract hauler. The shed packs, palletizes, cools and sells the fruit under a contract with the grower. For growers that own their packing and cooling equipment and sell their crop, the needed equipment for packing and cooling operations should be inventoried in Investment costs on **Table 5**, and operation costs would be calculated and placed in Harvest costs in **Table 1** and **2**. All custom charges would be subtracted from Harvest costs in **Table 1** and **2**.

Assessment fees collected by the California Tree Fruit Agreement (CTFA) are based on boxes of peaches and nectarines sold. The CTFA assessment fee is \$0.18 per box and is shown as a harvest cost.

7. YIELDS & RETURNS:

As noted above peaches and nectarines most often begin bearing an economic crop in the third year after planting. Typical annual yields for June harvested varieties are measured in boxes per acre and are shown in **Table C**. These yields are from the third year of orchard establishment to maturity. The weight of a box of peaches or nectarines in this study is 23.5 pounds.

Table B. Annual Establishment Yield Per Acre

Year	Yield (Boxes/Acre)
3	200
4	400
5	600
6+	900

An estimated price of a \$7.80 per box of June harvested peaches or nectarines based on typical average fruit size and price distribution, is used in this study. Returns, shown in **Table 7**, will vary and the yields and prices used in this cost study are an estimate taking into consideration current situations.

8. LABOR:

Hourly wages for workers are \$6.55 and \$4.69 per hour for skilled and field workers respectively. Adding 34% for SDI, FICA, insurance and other benefits gives the labor rates shown of \$8.78 per hour for skilled labor and \$6.28 per hour for field labor. The labor for operations involving machinery are 20% higher than the operation time to account for the extra labor involved in equipment set up, moving, maintenance and repair.

9. OVERHEAD:

County taxes are calculated as 1% of the land value plus 1% of the average value of the trees, equipment, buildings and improvements. Insurance is charged at 0.5% of the average value of the equipment over its useful life. Liability insurance covers accidents on the farm and costs \$330 for the entire farm or \$3.30 per acre. Office expenses are estimated at \$30 per acre and include, but are not limited to office supplies, phone, bookkeeping, accounting, legal fees, etc. Sanitation services provide portable field toilets for the orchard workers and cost the farm \$224 annually.

10. INTEREST:

Interest on operating capital is based on cash costs and is calculated monthly for eleven months until harvest at a nominal rate of 9.00% per year. Interest is also charged on investment at 4% per year to account for income foregone that could be received from an alternative investment (opportunity cost) and is based on the average value of the land, orchard, buildings and equipment. Real interest rates are used on investments, so no adjustment for inflation have been included. Nominal interest rates would contain a factor for inflation which might run 1% to 4% higher than real interest rates, to account for inflation.

11. EQUIPMENT COSTS:

In allocating the equipment costs per acre, the following calculations were made and shown in **Table 5**: (a) **Original Cost** of equipment is the cost of the new equipment plus sales tax. (b) **Depreciation** is straight line with a 10% salvage value. (c) **Interest** on investment is calculated as the average value per acre of the equipment during its useful life, multiplied by an interest rate of 4%. Average value equals new cost plus salvage value divided by 2 on a per acre basis. (d) The total investment costs are calculated as 60% of the depreciation and the interest reflect a mix of new and used equipment. These values are also used in **Table 2**. Hourly equipment costs are shown in **Table 6**.

12. FUEL & REPAIR:

The fuel and repair cost per acre for each operation in **Table 2**, is determined by multiplying the total hourly operating cost for each piece of equipment in **Table 6**, by the number of hours per acre for that operation. Prices for on farm delivery of diesel and gasoline are \$0.71 and \$0.98 per gallon respectively.

Table 1.

U. C. COOPERATIVE EXTENSION
 SAMPLE COSTS PER ACRE TO ESTABLISH A PEACH/NECTARINE ORCHARD
 SOUTHERN SAN JOAQUIN VALLEY - 1992
 June Harvested Varieties

Labor Rate: \$8.78/hr. machine labor
 \$6.28/hr. non-machine labor

Interest rate: 9.0%
 Trees/Acre: 151

YEAR	Costs per Acre				
	1st	2nd	3rd	4th	5th
YIELD (Boxes/Acre)			200	400	600
Planting Costs:					
Land Preparation - Ripping, Custom	\$170				
Land Preparation - Touch Up Leveling, Custom	50				
Disk and Float - 2X	10				
Fumigate - Custom	500				
Trees: 151 @ \$5.75 (+2 2nd Year)	868				
Survey And Plant Trees	83	\$10			
TOTAL PLANTING COSTS	\$1,681	\$10			
Cultural Costs:					
Prune and Train		\$32	\$63	\$190	\$316
Shred Brush		7	7	7	7
Rope Trees			35	35	50
Cultivate	\$16	16	7	7	7
Thinning			96	170	316
Put Up Berms	3				
Furrow Middles	17	17	4	4	4
Irrigate	117	127	141	156	176
Fertilizer - Nitrogen	18	19	31	48	48
Fertilizer - Zinc	10	15	15	15	15
Pest Control - Dormant		59	59	59	59
Pest Control - Bloom			38	38	38
Pest Control - Worm			30	30	30
Pest Control - Mite		31	31	31	31
Weed Control - Pre-emergent		40	40	40	40
Weed Control - Strip Spray Berms	29				
Weed Control - Middles			13	13	13
Weed Control - Spot Spray 1/4 Of Acreage		2	2	2	2
Pickup Truck Use	87	87	87	87	87
TOTAL CULTURAL COSTS	\$297	\$452	\$699	\$932	\$1,239
Harvesting Costs:					
Pick Fruit			\$179	\$357	\$624
Haul To Shed - Contract			21	42	74
Pack Fruit - Contract			530	1,060	1,855
Palletize And Cool - Contract			50	100	175
Sell			156	312	546
California Tree Fruit Agreement Assessment			36	72	126
TOTAL HARVEST COSTS			\$972	\$1,943	\$3,400
Postharvest Costs:					
Fall Ripping	\$3	\$3	\$3	\$3	\$3
TOTAL POSTHARVEST COSTS	\$3	\$3	\$3	\$3	\$3

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Table 1. continued

YEAR	Costs per Acre				
	1st	2nd	3rd	4th	5th
Interest on operating capital @ 9%	\$169	\$22	\$24	\$40	\$51
Cash Overhead Costs:					
Office Expense	\$100	\$100	\$100	\$100	\$100
Liability Insurance	3	3	3	3	3
Property Taxes	63	63	63	63	63
Property Insurance	32	32	32	32	32
Investment Repairs	5	5	5	5	5
TOTAL CASH OVERHEAD COSTS	\$203	\$203	\$203	\$203	\$203
TOTAL CASH COSTS	\$2,353	\$690	\$1,901	\$3,121	\$4,896
INCOME FROM PRODUCTION			\$2,290	\$4,580	\$6,870
NET CASH COSTS FOR THE YEAR	\$2,353	\$690			
PROFIT ABOVE CASH COSTS			\$389	\$1,459	\$1,974
ACCUMULATED NET CASH COSTS	\$2,353	\$3,043	\$2,654	\$1,195	
ACCUMULATED PROFITS ABOVE NET CASH COSTS					\$779
Depreciation:					
Buildings	\$13	\$13	\$13	\$13	\$13
Furrow Irrigation System	9	9	9	9	9
Fuel Tanks & Pumps	4	4	4	4	4
Shop Tools	7	7	7	7	7
ATV - 4WD	12	12	12	12	12
Equipment	46	46	46	46	46
TOTAL DEPRECIATION	\$91	\$91	\$91	\$91	\$91
Interest on Investment @ 4%:					
Buildings	\$8	\$8	\$8	\$8	\$8
Furrow Irrigation System	7	7	7	7	7
Fuel Tanks & Pumps	2	2	2	2	2
Shop Tools	2	2	2	2	2
ATV - 4WD	1	1	1	1	1
Land @ \$5500/acre	220	220	220	220	220
Equipment	12	12	12	12	12
TOTAL INTEREST ON INVESTMENT	\$252	\$252	\$252	\$252	\$252
TOTAL COST FOR THE YEAR	\$2,696	\$1,033	\$2,244	\$3,464	\$5,239
INCOME FROM PRODUCTION			\$2,290	\$4,580	\$6,870
TOTAL NET COST FOR THE YEAR	\$2,696	\$1,033			
NET PROFIT ABOVE TOTAL COST			\$46	\$1,116	\$1,631
TOTAL ACCUMULATED NET COST	\$2,696	\$3,729	\$3,683	\$2,567	\$936
TOTAL ACCUMULATED PROFITS ABOVE TOTAL COSTS					

Table 2.

U. C. COOPERATIVE EXTENSION
 COSTS PER ACRE TO PRODUCE MATURE PEACHES/NECTARINES
 SOUTHERN SAN JOAQUIN VALLEY - 1992
 June Harvested Varieties

Labor Rate: \$8.78/hr. machine labor Interest Rate: 9.00%
 \$6.28/hr. non-machine labor Yield per Acre: 900 boxes

Operation	Operation Time (Hrs/A)	Labor Cost	Fuel, Lube & Repairs	Cash and Labor Material Cost	Costs per Acre Custom/Rent	Total Cost	Your Cost
Cultural:							
Prune And Train	75.50	474	0	0	0	474	
Weed Control - Pre-emergent	0.13	1	1	38	0	40	
Shred Brush	0.37	4	3	0	0	7	
Pest Control - Dormant & Zinco	0.20	2	3	45	0	50	
Rope Trees	7.96	50	0	0	0	50	
Pest Control - Bloom	0.20	2	3	33	0	38	
Pest Control - Thrips (Nectarine Only)	0.20	2	3	33	0	38	
Cultivate	0.37	4	3	0	0	7	
Furrow Middles	0.26	3	1	0	0	4	
Fertilize - Nitrogen	0.17	2	1	47	0	49	
Thin Orchard	66.50	418	0	0	0	418	
Irrigate	9.00	57	0	119	0	176	
Pest Control - Worms	0.31	3	4	40	0	47	
Weed Control - Middles	0.64	7	3	8	0	18	
Weed Control - Spot Spray	0.43	4	2	3	0	9	
Pest Control - Mites	0.10	1	1	26	0	29	
Pest Control - Preharvest	0.10	1	1	8	0	10	
Pickup Truck Use	5.70	60	27	0	0	87	
TOTAL CULTURAL COSTS	168.15	1095	55	400	0	1550	
Harvest:							
Pick Fruit - 900 Boxes/Acre	40.80	1116	233	0	0	1349	
Haul To Shed	0.00	0	0	0	95	95	
Pack Fruit	0.00	0	0	0	2385	2385	
Palletize And Cool Fruit	0.00	0	0	0	225	225	
Sell	0.00	0	0	0	702	702	
CTFA Assessment	0.00	0	0	162	0	162	
TOTAL HARVEST COSTS	40.80	1116	233	162	3407	4918	
Post harvest:							
Fall Chisel plowing	0.19	2	1	0	0	3	
TOTAL POSTHARVEST COSTS	0.19	2	1	0	0	3	
Interest on operating capital @ 9.00%							82
TOTAL OPERATING COSTS/ ACRE		2213	289	562	3407	6554	
TOTAL OPERATING COSTS/ BOX						7.28	
CASH OVERHEAD:							
Office Expense							100
Liability Insurance							3
Sanitation Fees							2
Property Taxes							82
Property Insurance							41
Investment Repairs							5
TOTAL CASH OVERHEAD COSTS							233
TOTAL CASH COSTS/ ACRE							6787
TOTAL CASH COSTS/ BOX							7.54
NON-CASH OVERHEAD:							
Investment	Per producing Acre		Annual Depreciation	Cost	Interest @ 4.00%		
Buildings	370		13	8		21	
Fuel Tanks & Pumps	81		4	2		5	
Shop Tools	110		7	2		9	
Irrigation System	310		9	7		16	
ATV - 4WD	65		12	1		13	
Land	5500				220	220	
Establishment Cost	2654		156		53	209	
Equipment	1547		108		34	142	
TOTAL NON-CASH OVERHEAD COSTS	10637		308		328	636	
TOTAL COSTS/ ACRE							7423
TOTAL COSTS/ BOX							8.25

Table 3.

U. C. COOPERATIVE EXTENSION
 DETAIL OF COSTS PER ACRE TO PRODUCE MATURE PEACHES/NECTARINES
 SOUTHERN SAN JOAQUIN VALLEY - 1992
 June Harvested Varieties

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Labor Rate: \$8.78/ hr. machine labor		Interest Rate: 9.00%		
\$6.28/ hr. non-machine labor				
Quantity/ Acre	Unit	Price or Cost / Unit	Value or Cost / Acre	Your Cost
OPERATING COSTS				
Herbicide:				
Surflan	1.00	qt	17.92	18
Goal	1.00	qt	19.89	20
Roundup	1.00	qt	11.29	11
Miticide:				
Dormant Oil	6.00	gal	2.79	17
Omite	5.00	lb	5.28	26
Fertilizer:				
Zinc	10.00	lb	1.10	11
Ammonium Nitrate	151.00	lb	0.31	47
Insecticide:				
Diazinon 50 W	4.00	lb	4.41	18
Carzol 92SP	1.00	lb	32.98	33
Guthion	2.00	lb	8.98	18
Sevin 80S	5.00	lb	4.38	22
Fungicide:				
Rovral	1.50	lb	21.83	33
Fungi nex	12.00	oz	0.64	8
Water:				
Water	44.01	acin	2.71	119
Costs:				
Haul	21.15	bin	4.50	95
Contract:				
Pack	900.00	box	2.65	2385
Palletize	900.00	box	0.25	225
Sell	900.00	box	0.78	702
Assessment:				
CTFA	900.00	box	0.18	162
Labor (machine)	102.34	hrs	8.78	959
Labor (non-machine)	199.76	hrs	6.28	1254
Fuel - Gas	11.40	gal	0.98	11
Fuel - Diesel	144.34	gal	0.71	102
Lube				17
Machinery repair				159
Interest on operating capital @ 9.00%				82
TOTAL OPERATING COSTS/ ACRE			6554	
TOTAL OPERATING COSTS/ BOX			7.28	
CASH OVERHEAD COSTS:				
Office Expense				100
Liability Insurance				3
Sanitation Fees				2
Property Taxes				82
Property Insurance				41
Investment Repairs				5
TOTAL CASH OVERHEAD COSTS/ ACRE			233	
TOTAL CASH COSTS/ ACRE			6787	
TOTAL CASH COSTS/ BOX			7.54	
NON-CASH OVERHEAD COSTS (DEPRECIATION & INTEREST):				
Buildings				21
Fuel Tanks & Pumps				5
Shop Tools				9
Irrigation System				16
ATV - 4WD				13
Land				220
Establishment Cost				209
Equipment				142
TOTAL NON-CASH OVERHEAD COSTS/ ACRE			636	
TOTAL COSTS/ ACRE			7423	
TOTAL COSTS/ BOX			8.25	

Table 4.

U. C. COOPERATIVE EXTENSION
MONTHLY CASH COSTS PER ACRE TO PRODUCE MATURE PEACHES/NECTARINES
SOUTHERN SAN JOAQUIN VALLEY - 1992
June Harvested Varieties

Beginning	DEC 92	JAN 93	FEB 93	MAR 93	APR 93	MAY 93	JUN 93	JUL 93	AUG 93	SEP 93	OCT 93	NOV 93	TOTAL
Ending	NOV 93												
Cultural:													
Prune And Train	237	237											474
Weed Control - Pre-emergent	40												40
Shred Brush		7											7
Pest Control - Dormant & Zinc		50											50
Rope Trees			50										50
Pest Control - Bloom				38									38
Pest Control - Thrips				38									38
Cultivate				3				3					7
Furrow Middles				4									4
Fertilize - Nitrogen					12					37			49
Thin Orchard					418								418
Irrigate					20	20	39	39	39	20			176
Pest Control - Worms						23	24						47
Weed Control - Middles						4	4	4	4	4			18
Weed Control - Spot Spray						2	2	2	2	2			9
Pest Control - Mites							29						29
Pest Control - Preharvest								10					10
Pickup Truck Use	8	8	8	8	8	8	8	8	8	8	8	8	87
TOTAL CULTURAL COSTS	285	302	58	91	458	56	106	66	52	70	8		1550
Harvest:													
Pick Fruit - 900 Boxes/Acre							1349						1349
Haul To Shed							95						95
Pack Fruit							2385						2385
Palletize And Cool Fruit							225						225
Sell							702						702
CTFA Assessment							162						162
TOTAL HARVEST COSTS							4918						4918
Post harvest:													
Fall Chiseling											3		3
TOTAL POSTHARVEST COSTS											3		3
Interest on oper. capital	2	4	5	6	9	9	47						82
TOTAL OPERATING COSTS/ ACRE	287	306	63	96	466	65	5071	66	52	70	11		6554
TOTAL OPERATING COSTS/ BOX	0.32	0.34	0.07	0.11	0.52	0.07	5.63	0.07	0.06	0.08	0.01		7.28
OVERHEAD:													
Office Expense	9	9	9	9	9	9	9	9	9	9	9	9	100
Liability Insurance	0	0	0	0	0	0	0	0	0	0	0	0	3
Sanitation Fees	2												2
Property Taxes		41						41					82
Property Insurance		20						20					41
Investment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	5
TOTAL CASH OVERHEAD COSTS	12	71	10	10	10	10	10	71	10	10	10		233
TOTAL CASH COSTS/ ACRE	299	378	73	106	476	75	5081	137	62	79	21		6787
TOTAL CASH COSTS/ BOX	0.33	0.42	0.08	0.12	0.53	0.08	5.65	0.15	0.07	0.09	0.02		7.54

Table 5.

U. C. COOPERATIVE EXTENSION
WHOLE FARM ANNUAL EQUIPMENT, INVESTMENT, AND BUSINESS OVERHEAD COSTS
SOUTHERN SAN JOAQUIN VALLEY - 1992

ANNUAL EQUIPMENT COSTS

Yr	Description	Price	- Non-Cash Over -			- Cash Overhead -		Total
			Yrs Life	Depre- ciation	Interest	Insur- ance	Taxes	
92	30 HP 2VD Tractor	18100	15	1086	398	50	100	1634
92	30 HP 2VD Tractor	18100	15	1086	398	50	100	1634
92	75 HP 4VD Tractor	37450	15	2247	824	103	206	3380
92	Bin Trailer	950	15	57	21	3	5	86
92	Bin Trailer	950	15	57	21	3	5	86
92	Bin Trailer	950	15	57	21	3	5	86
92	Disc - Tandem 14'	7490	10	674	165	21	41	901
92	Furrowing Bar	750	15	45	16	2	4	68
92	Mower/Chopper - 8'	5500	10	495	121	15	30	661
92	Orchard Sprayer 500 Gal	16050	10	1444	353	44	88	1930
92	Pickup Truck - 3/4 Ton	19260	7	2476	424	53	106	3059
92	Pickup Truck - Used	8000	7	1029	176	22	44	1271
92	Ripper - 3 Shank	1953	15	117	43	5	11	176
92	Spinner Spreader - 3PT	800	20	36	18	2	4	60
92	Weed Sprayer 100 Gal	3424	10	308	75	9	19	412
TOTAL		139727		11215	3074	384	769	15442
60% of New Cost *		83836		6729	1844	231	461	9265

* Used to reflect a mix of new and used equipment.

ANNUAL INVESTMENT COSTS

Yr	Description	Price	- Non-Cash Over -			- Cash Overhead -			Total
			Yrs Life	Depre- ciation	Interest	Insur- ance	Taxes	Repairs	
INVESTMENT									
	ATV - 4WD	6500	5	1170	143	18	36	50	1417
	Buildings	37000	25	1332	814	102	203	100	2551
	Establishment Cost	13270	17	781	265	33	66	0	1146
	Fuel Tanks & Pumps	8100	20	365	178	22	45	125	735
	Irrigation System	31030	30	931	683	85	171	100	1970
	Land	27500			1100	138	275	0	1513
	Shop Tools	11000	15	660	242	30	61	100	1093
TOTAL INVESTMENT		134400		5238	3425	428	856	475	10423

ANNUAL BUSINESS OVERHEAD COSTS

Description	Units/ Farm	Unit	Price/ Unit	Total Cost
Liability Insurance	100.00	acre	3.30	330
Office Expense	100.00	acre	100.00	10000
Sanitation Fees	100.00	acre	2.24	224

Table 6.

U. C. COOPERATIVE EXTENSION
 HOURLY EQUIPMENT COSTS
 SOUTHERN SAN JOAQUIN VALLEY - 1992

Yr	Description	COSTS PER HOUR								Total Costs/Hr.
		Actual Hours Used	- Non-Cash Depre- ciation	Over- Inter- est	- Cash Insur- ance	Overhead Taxes	Repa- irs	Operat- ing Fuel & Lube	Total Oper.	
92	30 HP 2WD Tractor	957.9	0.68	0.25	0.03	0.06	1.09	1.20	2.29	3.31
92	30 HP 2WD Tractor	953.4	0.68	0.25	0.03	0.06	1.09	1.20	2.29	3.31
92	75 HP 4WD Tractor	800.8	1.68	0.62	0.08	0.15	1.87	3.01	4.88	7.41
92	Bin Trailer	306.0	0.11	0.04	0.01	0.01	0.23	0.00	0.23	0.40
92	Bin Trailer	306.0	0.11	0.04	0.01	0.01	0.23	0.00	0.23	0.40
92	Bin Trailer	306.0	0.11	0.04	0.01	0.01	0.23	0.00	0.23	0.40
92	Disc - Tandem 14'	249.8	1.62	0.40	0.05	0.10	2.15	0.00	2.15	4.32
92	Furrowing Bar	165.3	0.16	0.06	0.01	0.01	0.22	0.00	0.22	0.46
92	Mower/Chopper - 8'	199.9	1.49	0.36	0.05	0.09	1.98	0.00	1.98	3.97
92	Orchard Sprayer 500 Gal	120.7	7.18	1.76	0.22	0.44	8.05	0.00	8.05	17.65
92	Pickup Truck - 3/4 Ton	284.2	5.23	0.89	0.11	0.22	3.50	2.25	5.75	12.20
92	Pickup Truck - Used	284.2	2.17	0.37	0.05	0.09	1.45	2.25	3.70	6.38
92	Ripper - 3 Shank	166.0	0.42	0.16	0.02	0.04	0.56	0.00	0.56	1.20
92	Spinner Spreader - 3PT	59.9	0.36	0.18	0.02	0.04	0.48	0.00	0.48	1.08
92	Weed Sprayer 100 Gal	124.0	1.49	0.36	0.05	0.09	1.72	0.00	1.72	3.71

Table 7.

U. C. COOPERATIVE EXTENSION
RANGING ANALYSIS
SOUTHERN SAN JOAQUIN VALLEY - 1992
June Harvested Varieties

COSTS PER ACRE AT VARYING YIELDS TO PRODUCE PEACH

	YIELD (BOX/ ACRE)						
	750	800	850	900	950	1000	1050
OPERATING COSTS/ ACRE:							
Cultural Cost	1550	1550	1550	1550	1550	1550	1550
Harvest Cost	4281	4493	4706	4918	5131	5343	5556
Post harvest Cost	3	3	3	3	3	3	3
Interest on operating capital	77	79	81	82	84	85	87
TOTAL OPERATING COSTS/ ACRE	5911	6125	6339	6554	6768	6982	7196
TOTAL OPERATING COSTS/ BOX	7.88	7.66	7.46	7.28	7.12	6.98	6.85
CASH OVERHEAD COSTS/ ACRE	233	233	233	233	233	233	233
TOTAL CASH COSTS/ ACRE	6144	6359	6573	6787	7001	7215	7429
TOTAL CASH COSTS/ BOX	8.19	7.95	7.73	7.54	7.37	7.21	7.08
NON-CASH OVERHEAD COSTS/ ACRE	636	636	636	636	636	636	636
TOTAL COSTS/ ACRE	6781	6995	7209	7423	7637	7851	8065
TOTAL COSTS/ BOX	9.04	8.74	8.48	8.25	8.04	7.85	7.68

NET RETURNS PER ACRE ABOVE OPERATING COSTS FOR JUNE HARVESTED PEACHES

PRICE (DOLLARS PER BOX)	YIELD (BOX/ ACRE)						
	750	800	850	900	950	1000	1050
6.00	-1411	-1325	-1239	-1154	-1068	-982	-896
6.50	-1036	-925	-814	-704	-593	-482	-371
7.00	-661	-525	-389	-254	-118	18	154
7.50	-286	-125	36	196	357	518	679
8.00	89	275	461	646	832	1018	1204
8.50	464	675	886	1096	1307	1518	1729
9.00	839	1075	1311	1546	1782	2018	2254

NET RETURNS PER ACRE ABOVE CASH COSTS FOR JUNE HARVESTED PEACHES

PRICE (DOLLARS PER BOX)	YIELD (BOX/ ACRE)						
	750	800	850	900	950	1000	1050
6.00	-1644	-1559	-1473	-1387	-1301	-1215	-1129
6.50	-1269	-1159	-1048	-937	-826	-715	-604
7.00	-894	-759	-623	-487	-351	-215	-79
7.50	-519	-359	-198	-37	124	285	446
8.00	-144	41	227	413	599	785	971
8.50	231	441	652	863	1074	1285	1496
9.00	606	841	1077	1313	1549	1785	2021

NET RETURNS PER ACRE ABOVE TOTAL COSTS FOR JUNE HARVESTED PEACHES

PRICE (DOLLARS PER BOX)	YIELD (BOX/ ACRE)						
	750	800	850	900	950	1000	1050
6.00	-2281	-2195	-2109	-2023	-1937	-1851	-1765
6.50	-1906	-1795	-1684	-1573	-1462	-1351	-1240
7.00	-1531	-1395	-1259	-1123	-987	-851	-715
7.50	-1156	-995	-834	-673	-512	-351	-190
8.00	-781	-595	-409	-223	-37	149	335
8.50	-406	-195	16	227	438	649	860
9.00	-31	205	441	677	913	1149	1385