

U.C. COOPERATIVE EXTENSION

SAMPLE COSTS TO ESTABLISH AND PRODUCE PEACHES/NECTARINES May Harvested Varieties IN THE SOUTHERN SAN JOAQUIN VALLEY - 1992

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The detailed costs for establishment and production of May 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 and 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.	Whole Farm 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
PEACHES/NECTARINES
May 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 peach and 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 early peach/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 varieties of peach or nectarine trees are assumed in this study, except those that are harvested in May. Peach varieties that might be planted include, but are not limited to; May Crest, Springcrest, Spring Lady or Queencrest. For nectarines a partial list of varieties might include; Mayfire or Mayglo. The trees are planted at 16' X 18' spacings, with 151 trees per acre. The life of the orchard 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 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 with 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

4. ESTABLISHMENT CULTURAL 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. May 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 \$3,140 per acre or \$15,700 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 done in February, and fruit thinning is performed during March and 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 has been 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 May 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.

Year	Yield (Boxes/Acre)
3	150
4	250
5	500
6+	650

An estimated price of \$11.45 per box of May 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
 May Harvested Varieties

Labor Rate: \$8.78/hr. machine labor		Interest rate: 9.0%				
\$6.28/hr. non-machine labor		Trees/Acre: 151				
=====						
Costs per Acre						
YEAR	1st	2nd	3rd	4th	5th	

YIELD (Boxes/Acre)			150	250	500	

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	\$378	
Shred Brush		7	7	7	7	
Rope Trees			35	35	50	
Cultivate	\$16	16	7	7	7	
Put Up Berms	3					
Furrow Middles	17	17	4	4	4	
Thinning			133	222	443	
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	
Weed Control - Pre-emergement		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	\$736	\$984	\$1,428	
=====						
Harvesting Costs:						
Pick Fruit			\$150	\$251	\$502	
Haul To Shed - Contract			16	26	53	
Pack Fruit - Contract			397	663	1,325	
Palletize And Cool - Contract			38	63	125	
Sell			217	363	725	
California Tree Fruit Agreement Assessment			27	45	90	

TOTAL HARVEST COSTS			\$845	\$1,411	\$2,820	

Postharvest Costs:						
Fall Chiseling	\$3	\$3	\$3	\$3	\$3	

TOTAL POSTHARVEST COSTS	\$3	\$3	\$3	\$3	\$3	
Interest on operating capital @ 9%	\$169	\$22	\$27	\$32	\$55	

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	\$1,814	\$2,633	\$4,509	

INCOME FROM PRODUCTION			\$1,718	\$2,863	\$5,725	

NET CASH COSTS FOR THE YEAR	\$2,353	\$690	\$97			

PROFIT ABOVE CASH COSTS				\$230	\$1,216	
=====						
ACCUMULATED NET CASH COSTS	\$2,353	\$3,043	\$3,140	\$2,910	\$1,694	

ACCUMULATED PROFITS ABOVE NET CASH COSTS						
=====						

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Table 1. continued

YEAR	Costs per Acre				
	1st	2nd	3rd	4th	5th
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	44	44	44	44	44
TOTAL DEPRECIATION	\$89	\$89	\$89	\$89	\$89
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	11	11	11	11	11
TOTAL INTEREST ON INVESTMENT	\$251	\$251	\$251	\$251	\$251
TOTAL COST FOR THE YEAR	\$2,693	\$1,030	\$2,154	\$2,973	\$4,849
INCOME FROM PRODUCTION			\$1,718	\$2,863	\$5,725
TOTAL NET COST FOR THE YEAR	\$2,693	\$1,030	\$437	\$110	
NET PROFIT ABOVE TOTAL COST					\$876
TOTAL ACCUMULATED NET COST	\$2,693	\$3,723	\$4,160	\$4,270	\$3,394

Table 2.

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

Labor Rate: \$8.78/hr. machine labor Interest Rate: 9.00%
 \$6.28/hr. non-machine labor Yield per Acre: 650 boxes

Operation	Operation Time (Hrs/A)	Cash and Labor Costs per Acre				Total Cost	Your Cost
		Labor Cost	Fuel, Lube & Repairs	Material Cost	Custom/Rent		
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 & Zinc	0.20	2	3	45	0	50	
Rope Trees	7.96	50	0	0	0	50	
Pest Control - Bloom	0.21	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	
Thinning	91.80	577	0	0	0	577	
Irrigate	9.00	57	0	98	0	154	
Weed Control - Middles	0.64	7	3	8	0	18	
Weed Control - Spot Spray	0.43	4	2	3	0	9	
Pest Control - Worms	0.10	1	1	22	0	24	
Pest Control - Mites	0.10	1	1	26	0	29	
Fertilize - Nitrogen	0.11	1	0	47	0	48	
Pickup Truck Use	2.85	30	27	0	0	57	
TOTAL CULTURAL COSTS	190.24	1220	50	353	0	1623	
Harvest:							
Pick Fruit - 650 Boxes/Acre	33.13	906	189	0	0	1096	
Haul To Shed	0.00	0	0	0	95	95	
Pack Fruit	0.00	0	0	0	1722	1722	
Palletize And Cool Fruit	0.00	0	0	0	163	163	
Sell	0.00	0	0	0	943	943	
CTFA Assessment	0.00	0	0	135	0	135	
TOTAL HARVEST COSTS	33.13	906	189	135	2923	4153	
Postharvest:							
Fall Chiseling	0.19	2	1	0	0	3	
TOTAL POSTHARVEST COSTS	0.19	2	1	0	0	3	
Interest on operating capital @ 9.00%						70	
TOTAL OPERATING COSTS/ACRE		2128	241	488	2923	5850	
TOTAL OPERATING COSTS/BOX						9.00	
CASH OVERHEAD:							
Office Expense						100	
Liability Insurance						3	
Sanitation Fees						2	
Property Taxes						83	
Property Insurance						42	
Investment Repairs						5	
TOTAL CASH OVERHEAD COSTS						235	
TOTAL CASH COSTS/ACRE						6085	
TOTAL CASH COSTS/BOX						9.36	
NON-CASH OVERHEAD:							
Investment	Per producing Acre	Annual Cost		Interest @ 4.00%			
		Depreciation					
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	3140	185		63		248	
Equipment	1353	95		30		125	
TOTAL NON-CASH OVERHEAD COSTS	10929	325		333		658	
TOTAL COSTS/ACRE						6743	
TOTAL COSTS/BOX						10.37	

U.C. COOPERATIVE EXTENSION
 Table 3. DETAILS OF COSTS PER ACRE TO PRODUCE MATURE PEACHES/NECTARINES
 SOUTHERN SAN JOAQUIN VALLEY - 1992
 May Harvested Varieties

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	
Sevin 80S	5.00	lb	4.38	22	
Fungicide:					
Rovral	1.50	lb	21.83	33	
Water:					
Water	36.00	acin	2.71	98	
Custom:					
Haul	21.15	bin	4.50	95	
Contract:					
Pack	650.00	box	2.65	1722	
Palletize	650.00	box	0.25	163	
Sell	650.00	box	1.45	943	
Assessment:					
CTFA	750.00	box	0.18	135	
Labor (machine)	83.51	hrs	8.78	763	
Labor (non-machine)	217.40	hrs	6.28	1365	
Fuel - Gas	11.40	gal	0.98	11	
Fuel - Diesel	118.07	gal	0.71	84	
Lube				14	
Machinery repair				132	
Interest on operating capital @ 9.00%				70	
TOTAL OPERATING COSTS/ACRE				5850	
TOTAL OPERATING COSTS/BOX				9.00	
CASH OVERHEAD COSTS:					
Office Expense				100	
Liability Insurance				3	
Sanitation Fees				2	
Property Taxes				83	
Property Insurance				42	
Investment Repairs				5	
TOTAL CASH OVERHEAD COSTS/ACRE				235	
TOTAL CASH COSTS/ACRE				6085	
TOTAL CASH COSTS/BOX				9.36	
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				248	
Equipment				125	
TOTAL NON-CASH OVERHEAD COSTS/ACRE				658	
TOTAL COSTS/ACRE				6743	
TOTAL COSTS/BOX				10.37	

Table 4.

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

Beginning	DEC 92	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	TOTAL
Ending	NOV 93	92	93	93	93	93	93	93	93	93	93	93	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				19	19									38
Pest Control - Thrips					38									38
Cultivate					3				3					7
Furrow Middles					4									4
Thinning					288	288								577
Irrigate						12	23	34	34	34	17			154
Weed Control - Middles							4	4	4	4	4			18
Weed Control - Spot Spray							2	2	2	2	2			9
Pest Control - Worms								24						24
Pest Control - Mites								29						29
Fertilize - Nitrogen											48			48
Pickup Truck Use		5	5	5	5	5	5	5	5	5	5	5		57
TOTAL CULTURAL COSTS		282	299	74	358	305	33	98	48	45	76	5		1623
Harvest:														
Pick Fruit - 650 Boxes/Acre							1096							1096
Haul To Shed							95							95
Pack Fruit							1722							1722
Palletize And Cool Fruit							163							163
Sell							943							943
CTFA Assessment							135							135
TOTAL HARVEST COSTS							4153							4153
Postharvest:														
Fall Chiseling												3		3
TOTAL POSTHARVEST COSTS												3		3
Interest on oper. capital		2	4	5	8	10	41							70
TOTAL OPERATING COSTS/ACRE		284	304	79	365	315	4228	98	48	45	76	8		5850
TOTAL OPERATING COSTS/BOX		0.44	0.47	0.12	0.56	0.48	6.50	0.15	0.07	0.07	0.12	0.01		9.00
OVERHEAD:														
Office Expense		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		3
Sanitation Fees		2												2
Property Taxes			42						42					83
Property Insurance			21						21					42
Investment Repairs		0	0	0	0	0	0	0	0	0	0	0		5
TOTAL CASH OVERHEAD COSTS		12	72	10	10	10	10	10	72	10	10	10		235
TOTAL CASH COSTS/ACRE		296	376	89	375	325	4238	108	120	55	86	18		6085
TOTAL CASH COSTS/BOX		0.46	0.58	0.14	0.58	0.50	6.52	0.17	0.19	0.08	0.13	0.03		9.36

Table 5.

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

ANNUAL EQUIPMENT COSTS

Yr	Description	Price	Yrs Life	- Non-Cash Over. -		Cash Overhead -		Total
				Depre- ciation	Interest	Insur- ance	Taxes	
92	30 HP 2WD Tractor	18100	15	1086	398	50	100	1634
92	30 HP 2WD Tractor	18100	15	1086	398	50	100	1634
92	75 HP 4WD 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	Yrs Life	- Non-Cash Over. -		Cash Overhead -			Total
				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	15700	17	924	314	39	78	0	1355
	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		136830		5381	3474	434	868	475	10632

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 -

Yr Description	Actual Hours Used	----- COSTS PER HOUR -----						Total Oper.	Total Costs/Hr.
		-Non-Cash Depre- ciation	Over- Interest	- Cash Insur- ance	Overhead Taxes	Repairs	Operating Fuel & Lube		
92 30 HP 2WD Tractor	915.5	0.71	0.26	0.03	0.07	1.09	1.20	2.29	3.36
92 30 HP 2WD Tractor	911.2	0.72	0.26	0.03	0.07	1.09	1.20	2.29	3.36
92 75 HP 4WD Tractor	799.1	1.69	0.62	0.08	0.15	1.87	3.01	4.88	7.42
92 Bin Trailer	267.7	0.13	0.05	0.01	0.01	0.23	0.00	0.23	0.42
92 Bin Trailer	267.7	0.13	0.05	0.01	0.01	0.23	0.00	0.23	0.42
92 Bin Trailer	267.7	0.13	0.05	0.01	0.01	0.23	0.00	0.23	0.42
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	119.1	7.28	1.78	0.22	0.44	8.05	0.00	8.05	17.78
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	59.6	0.36	0.18	0.02	0.04	0.48	0.00	0.48	1.09
92 Weed Sprayer 100 Gal	124.0	1.49	0.36	0.05	0.09	1.72	0.00	1.72	3.71

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

COSTS PER ACRE AT VARYING YIELDS TO PRODUCE MATURE PEACHES/NECTARINES

	YIELD (BOX/ACRE)						
	500	550	600	650	700	750	800
OPERATING COSTS/ACRE:							
Cultural Cost	1593	1593	1593	1593	1593	1593	1593
Harvest Cost	3400	3651	3902	4153	4404	4656	4907
Postharvest Cost	3	3	3	3	3	3	3
Interest on operating capital	64	66	68	70	72	73	75
TOTAL OPERATING COSTS/ACRE	5060	5313	5566	5819	6073	6326	6579
TOTAL OPERATING COSTS/BOX	10.12	9.66	9.28	8.95	8.68	8.43	8.22
CASH OVERHEAD COSTS/ACRE							
	235	235	235	235	235	235	235
TOTAL CASH COSTS/ACRE	5295	5548	5802	6055	6308	6561	6814
TOTAL CASH COSTS/BOX	10.59	10.09	9.67	9.31	9.01	8.75	8.52
NON-CASH OVERHEAD COSTS/ACRE							
	658	658	658	658	658	658	658
TOTAL COSTS/ACRE	5953	6206	6459	6712	6966	7219	7472
TOTAL COSTS/BOX	11.91	11.28	10.77	10.33	9.95	9.62	9.34

NET RETURNS PER ACRE ABOVE OPERATING COSTS FOR MATURE PEACHES/NECTARINES

PRICE (DOLLARS PER BOX)	YIELD (BOX/ACRE)						
	500	550	600	650	700	750	800
8.50	-810	-638	-466	-294	-123	49	221
9.50	-310	-88	134	356	577	799	1021
10.50	190	462	734	1006	1277	1549	1821
11.45	665	984	1304	1623	1942	2262	2581
12.50	1190	1562	1934	2306	2677	3049	3421
13.50	1690	2112	2534	2956	3377	3799	4221
14.50	2190	2662	3134	3606	4077	4549	5021

NET RETURNS PER ACRE ABOVE CASH COSTS FOR MATURE PEACHES/NECTARINES

PRICE (DOLLARS PER BOX)	YIELD (BOX/ACRE)						
	500	550	600	650	700	750	800
8.50	-1045	-873	-702	-530	-358	-186	-14
9.50	-545	-323	-102	120	342	564	786
10.50	-45	227	498	770	1042	1314	1586
11.45	430	749	1068	1388	1707	2027	2346
12.50	955	1327	1698	2070	2442	2814	3186
13.50	1455	1877	2298	2720	3142	3564	3986
14.50	1955	2427	2898	3370	3842	4314	4786

NET RETURNS PER ACRE ABOVE TOTAL COSTS FOR PEACHES/NECTARINES

PRICE (DOLLARS PER BOX)	YIELD (BOX/ACRE)						
	500	550	600	650	700	750	800
8.50	-1703	-1531	-1359	-1187	-1016	-844	-672
9.50	-1203	-981	-759	-537	-316	-94	128
10.50	-703	-431	-159	113	384	656	928
11.45	-228	91	411	730	1049	1369	1688
12.50	297	669	1041	1413	1784	2156	2528
13.50	797	1219	1641	2063	2484	2906	3328
14.50	1297	1769	2241	2713	3184	3656	4128