

# U.C. COOPERATIVE EXTENSION

## SAMPLE COSTS TO ESTABLISH AND PRODUCE *FRENCH PRUNES*

### *Flood Irrigated* IN TULARE COUNTY - 1994

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Detailed costs of establishing a French prune orchard and production of French prunes in Tulare County are presented in this study. The hypothetical farm used in this report is 40 acres, 35 of which are in prune production.

This study consists of General Assumptions for Establishing a French Prune Orchard and Producing French Prunes and eight tables. It is intended as a guide only. It can be used to make production decisions, determine potential returns, prepare budgets and evaluate production loans. Practices described in this study are based on those production procedures considered typical for Tulare County. Occasionally, additional practices, 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 every situation. A blank, *Your Cost*, column is provided to enter your actual costs on Table 2, Sample Costs To Produce French Prunes and Table 3, Costs And Returns Per Acre to Produce French Prunes.

Tables included:

<b>Table 1.</b>	<b>Costs Per Acre to Establish An French Prune Orchard</b>
<b>Table 2.</b>	<b>Costs Per Acre to Produce French Prunes</b>
<b>Table 3.</b>	<b>Costs and Returns Per Acre to Produce French Prunes</b>
<b>Table 4.</b>	<b>Monthly Cash Costs Per Acre to Produce French Prunes</b>
<b>Table 5.</b>	<b>Whole Farm Annual Equipment, Investment and Business Overhead</b>
<b>Table 6.</b>	<b>Hourly Equipment Costs</b>
<b>Table 7.</b>	<b>Ranging Analysis</b>
<b>Table 8.</b>	<b>Costs and Returns/Breakeven Analysis</b>

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 the farm advisor in the county of interest.

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**GENERAL ASSUMPTIONS FOR ESTABLISHING A FRENCH PRUNE ORCHARD AND  
PRODUCING FRENCH PRUNES**  
*Flood Irrigated*  
**Tulare County - 1994**  
**U.C. Cooperative Extension**

The following is a description of some general assumptions pertaining to sample costs of French prune orchard establishment and production in Tulare County. These 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 40 acres of land. Thirty five acres are planted to prunes and five acres include roads, irrigation systems and farmstead. The orchard is farmed by the owner; additional management costs ranging from \$60 to \$100 per acre occur if practices are contracted. Property costs \$4,000 per acre. Because only 35 of the 40 acres is planted with prunes, land is valued at \$4,571 per producing acre. Land is not depreciated.

**2. TREES:**

The variety of prune is Improved French. The trees are planted at 18' X 20' spacing, 121 trees per acre. Prune trees have a long production life if they are well maintained. The life of the orchard at the time of planting in this study is estimated to be 25 years.

**3. IRRIGATION:**

Water cost for irrigation is a blend of district and pumped water. Price per acre foot for water will vary from grower to grower in this region depending on particular irrigation district, and/or various well characteristics, and other irrigation factors. In this study, water is calculated to cost \$35.04 per acre foot. The amount of water applied to the orchard during the establishment period varies each year and is shown in Table A below.

Year	Acre Feet/Year <sup>1</sup>	Annual Cost/Acre
1	0.4	\$14.02
2	0.8	\$28.03
3	1.2	\$42.05
4	2.3	\$80.59
5+	3.8	\$133.15

<sup>1</sup> 15% excess water is delivered but not used by the trees do to runoff, evaporation, etc.

Water is delivered to the orchard in furrows along the tree rows during the first two years. Starting in the third year, water is flooded between the tree rows. No assumption is made about effective rainfall. The life of the irrigation system is estimated at 40 years.

**4. ESTABLISHMENT CULTURAL PRACTICES:**

This orchard is established on ground that has been previously planted to other crops. The land is assumed to be deep, well drained, and either a class I or II soil. The orchard site is leveled flat to obtain 85% irrigation flood or furrow) efficiency.

**Site Preparation:** Land preparation begins with deep ripping the soil profile to 5 to 6 feet in order to break up any underlying hardpan which would affect root and water penetration. Ripping is performed by contract operators. Following ripping the ground is leveled flat so high and low spots are removed in order to allow for efficient irrigation. The ground is then disced several times to break up large clods of soil and smooth the soil in advance of

planting the trees. All operations that prepare the orchard for planting are done in the year prior to planting, but costs are shown in the first year. However, for this study, these costs are included with those incurred in the first year as shown in Table 1.

**Planting:** Planting the orchard starts by marking tree sites with a small stake. Then holes are dug and trees planted. Later trunks are treated with white, water-based paint so trees are protected from sunburn. New trees are topped soon after planting so that trunk and scaffold development are encouraged. Regular pruning begins in the second year and hours required to perform this task, as well as costs, increase annually. Pruning is performed in winter months. In the second year, 3.6% of the trees or 2 trees per acre will have to be replanted.

**Fertilization:** Nitrogen is the major nutrient required for proper tree growth and optimum yields. Nitrogen fertilizer is applied in a liquid form, UN 32 (32% nitrogen), at increasing rates during orchard establishment. Annual rates of actual N are shown in Table B.

Table B.	Applied Nitrogen During Establishment Years		
	Year	Pounds Of N/Acre	Gallons Of UN 32/Acre
	1	4	1.1
	2	20	5.6
	3	30	8.5
	4	50	14.1
	5	100	28.2
	6	100	28.2
	7+	150	42.2

**Pest Management:** Chemical weed control in the orchard begins in the 2nd fall once borders are constructed in the tree rows, with a residual herbicide sprayed on them. In spring and summer a contact herbicide, Roundup® is used to control emerged weeds as "spot sprays" where needed. Tillage the first two seasons and mowing of row middles thereafter helps manage vegetation on the orchard floor. Discing and mowing are the mechanical weed control practice used in this study, though orchard cultivators or other tillage equipment might also be used.

During the developmental years, pest and disease control are begun. In this study, insect control is initiated in the 2nd year and disease control in the fourth. Insects of concern include San Jose scale (*Quadraspidotus perniciosus*), peach twig borer (*Anarsia lineatella*), and aphids (*Halyopterus pruni* and *Brachycaudus helichrysi*). Disease management is directed towards brown rot (*Monilinia laxa* or *M. fruiticola*) and prune russet or lacy scab during bloom.

**Establishment Cost:** The cost to establish the orchard is used to determine non-cash overhead expenses, depreciation, and interest on investment for production years. The establishment cost are the sum of cash costs for land preparation, planting, trees, production expenses, and cash overhead for growing prune trees through the first year fruit is harvested. The *Total Accumulated Net Cash Cost* in the fourth year shown in Table 1, represents the establishment cost per acre. For this study, this cost is \$3,876 per acre or \$135,660 for the 35 acre orchard. Establishment cost is depreciated beginning in the fifth year over the remaining 21 of the 25 years that the orchard is assumed to be in production.

## 5. PRODUCTION CULTURAL PRACTICES:

Cultural practices for the production of French prunes 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. Variation can be significant. For additional information contact the farm advisor in the county of interest.

**Pruning:** There are several pruning strategies for prune trees. In this study, the "Long" pruning method is used and is done in the winter months. Prunings are shredded by a tractor using a flail mower.

**Fertilization:** Mature tree nutrition is determined by leaf analysis in July. Nitrogen is applied at a rate of 100 pounds of N per acre. Fertilizer is in a liquid form (UN 32 - 32% nitrogen) and applied in April and June, 66% and 34% respectively. Zinc status is maintained with a zinc sulfate foliar application at leaf fall.

**Weed Control:** Weeds in mature orchards are controlled with the same combination of chemical and cultural (mowing) practices as one being established. Annual weeds are controlled in the tree row during the fall with a strip spray of residual herbicide. Perennial weeds that are not controlled by the fall residual spray receive 2 spot sprays of a contact herbicide.

**Insect and Disease Management:** Several insect and disease pests are treated each year. An annual dormant insecticide spray is applied in mid-February to control San Jose scale, Peach twig borer, and aphids. No other insect or mite control is needed during the season.

Fungicide sprays are applied prebloom and at full bloom to control brown rot and lacy scab. Although no other chemical disease control is practiced, current research has shown promise for a preharvest controls for brown rot. This may become an additional pest control practice.

Pesticides, rates, and cultural practices mentioned in this cost study are a few of those listed in the [UC IPM Prune Pest Management Guidelines](#) and [Prune Orchard Management](#). Written recommendations are required for many pesticides and are made by licensed pest control advisors. For information and pesticide use permits, contact the local county Agricultural Commissioner's office.

## 6. **HARVEST:**

Harvest starts in the fourth year after the orchard is planted. The prunes are mechanically harvested with a shaker and fruit is collected in a catching frame, often combined with the shaker. All costs for contracted harvest operations are charged on fresh (undried) tons. Yield maturity is reached in the seventh year. In this cost study, the crop is harvested and hauled by a contracted harvesting company, although some growers harvest their prunes themselves. Drying costs are paid by the grower.

For growers that own harvesting equipment, the equipment used for harvesting operations should be added to the equipment and investment inventories on Table 5 and custom harvest charges should be replaced in Harvest costs in Tables 1 and 2, with the cost of grower performed harvest and hauling costs.

Under a state marketing order, mandatory assessment fees are collected by the California Prune Board (CPB). These assessments are charged to the grower to pay for prune marketing and advertising programs. The assessment averages about \$28 per dry ton and is paid by the grower.

## 7. **YIELDS & RETURNS:**

As noted in the previous section, French prunes begin bearing an economic crop in the fourth year after planting. Typical annual yields for prunes are measured in dry tons per

acre and are shown in Table C. These yields are from the fourth year of orchard establishment to maturity.

Table C. Annual Yield Per Acre For All Years

Year	Tons Per Acre	
	Fresh	Dry
4	0.5	0.15
5	1.9	0.75
6	5.0	1.50
7	6.7	2.00
8+	13.3	4.00

An estimated price of a \$0.45 per pound of French prunes is used in this study so that a ranging analysis for different yields and price can be calculated. 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. **RISK:**

The risks associated with producing and marketing prunes should not be minimized. While this study makes every effort to model a production system based on typical, real world practices, it cannot fully represent financial, agronomic and market risks which affect the profitability and economic viability of French prune production.

The market for prunes can be volatile in both price and demand. Growers do not have control over either of these market components. Additionally, establishment of prune orchards and the equipment required to properly handle the crop is very capital intensive. Risk is caused by uncontrollable factors such as a decrease in the demand for French prunes caused by an oversupply or crop losses. Due to risk involved, access to a market is crucial. A market channel should be determined before any prune orchards are planted and brought into production.

Prunes require dehydration to develop the dry product. Prune dryers and drying space within dryers are limited. Before prunes are planted, it is important to ascertain where the eventual drying will take place.

### 9. **LABOR:**

Hourly wages for workers are \$7.46, and \$4.85 per hour for skilled, and field workers respectively. Adding 34% for Workers Compensation, Social Security, Medicare insurance, and other possible benefits gives the labor rates shown of \$10.00 per hour for skilled labor, and \$6.50 per hour for field labor. The labor for operations involving machinery are 20% higher than the operation time given in Table 2 to account for the extra labor involved in equipment set up, moving, maintenance, and repair.

### 10. **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 \$300 for the entire farm or \$5.00 per acre. Office expenses are estimated at \$90 per acre and include, but are not limited to: office supplies, phone, bookkeeping, accounting, and legal fees. Sanitation services provide portable toilets for work in the orchard and cost the farm \$240 annually.

### 11. **INTEREST:**

Interest on operating capital is based on cash costs and is calculated monthly for 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 over their useful life. Real interest rates are used on investments, so no long-term adjustment for future inflation have been included. Nominal interest rates would contain a factor for inflation and therefore be higher than real interest rates.

## **12. 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 uses the straight line method 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) Total Investment costs are calculated as 60% of the depreciation and the interest reflect a mix of new and used equipment. These values are used in Tables 2 and 3. Hourly equipment costs are shown in Table 6.

## **13. 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 \$1.00, and \$1.05 per gallon, respectively.

## REFERENCES

1. Cooperative Extension, University of California, Division of Agriculture and Natural Resources. 1985. Prune Orchard Management. Pub. 21410. Cooperative Extension, University of California, Division of Agriculture and Natural Resources. Oakland, CA.
2. University of California. 1993. Prune Pest Management Guidelines. pub.7. *In* M. L. Flint (ed.) UC IPM Pest Management Guidelines. Pub. 3339. Integrated Pest Management Education and Publications. University of California, Division of Agriculture and Natural Resources. Oakland, CA.

For information concerning the above mentioned references contact Tulare County or your local county Cooperative Extension office.

Table 2.

U.C. COOPERATIVE EXTENSION  
 COSTS PER ACRE TO PRODUCE PRUNES  
 TULARE COUNTY - 1994

Labor Rate: \$10.00/hr. machine labor  
 \$6.50/hr. non-machine labor

Interest Rate: 9.00%  
 Yield per Acre: 4.00 Ton

Operation	Operation Time (Hrs/A)	Labor Cost	Fuel, Lube & Repairs	Cash and Labor Material Cost	Costs per Acre Custom/Rent	Total Cost	Your Cost
<b>Cultural:</b>							
Pruning	23.08	150	0	0	0	150	
Brush Disposal	0.30	4	2	0	0	6	
Weed Control - Residual	0.18	2	2	39	0	43	
Insect Control - Scale/PTB	0.00	0	0	47	19	66	
Mow 4X	1.20	14	9	0	0	24	
Weed Control - Spot Spray 2X	0.35	4	3	3	0	11	
Fertilizer - Zinc	0.00	0	0	8	19	27	
Irrigate	3.00	20	0	133	0	153	
Fertilizer - Nitrogen	0.00	0	0	25	10	35	
Leaf Analysis	0.00	0	0	0	4	4	
Pickup Truck Use	7.13	86	44	0	0	129	
<b>TOTAL CULTURAL COSTS</b>	<b>35.23</b>	<b>279</b>	<b>61</b>	<b>254</b>	<b>52</b>	<b>646</b>	
<b>Harvest:</b>							
Shake & Catch	0.00	0	0	0	466	466	
Haul To Dryer	0.00	0	0	0	107	107	
Dry	0.00	0	0	0	866	866	
<b>TOTAL HARVEST COSTS</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1439</b>	<b>1439</b>	
<b>Assessment:</b>							
California Prune Board	0.00	0	0	373	0	373	
<b>TOTAL ASSESSMENT COSTS</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>373</b>	<b>0</b>	<b>373</b>	
Interest on operating capital @ 9.00%							43
<b>TOTAL OPERATING COSTS/ACRE</b>		<b>279</b>	<b>61</b>	<b>627</b>	<b>1491</b>	<b>2500</b>	
<b>TOTAL OPERATING COSTS/TON</b>						<b>625.12</b>	
<b>CASH OVERHEAD:</b>							
Office Expense							154
Liability Insurance							9
Sanitation Fees							7
Property Taxes							81
Property Insurance							41
Investment Repairs							17
<b>TOTAL CASH OVERHEAD COSTS</b>							<b>309</b>
<b>TOTAL CASH COSTS/ACRE</b>							<b>2810</b>
<b>TOTAL CASH COSTS/TON</b>							<b>702.48</b>
<b>NON-CASH OVERHEAD:</b>							
Investment	Per producing Acre	Depreciation	Annual Cost	Interest @ 4.00%			
Land	4571			183			183
Buildings	1057	42		21			63
Irrigation System	457	11		9			21
Shop Tools	286	9		6			15
Pruning Tools	6	2		0			2
Establishment Cost	3741	178		75			253
Equipment	1349	115		30			145
<b>TOTAL NON-CASH OVERHEAD COSTS</b>	<b>11467</b>	<b>357</b>		<b>324</b>			<b>681</b>
<b>TOTAL COSTS/ACRE</b>							<b>3491</b>
<b>TOTAL COSTS/TON</b>							<b>872.75</b>





Table 4.

U.C. COOPERATIVE EXTENSION  
 MONTHLY CASH COSTS PER ACRE TO PRODUCE PRUNES  
 TULARE COUNTY - 1994

Beginning	NOV 93	NOV 93	DEC 93	JAN 94	FEB 94	MAR 94	APR 94	MAY 94	JUN 94	JUL 94	AUG 94	SEP 94	OCT 94	TOTAL
Ending	OCT 94	93	93	94	94	94	94	94	94	94	94	94	94	
=====														
Cultural:														
Pruning		150												150
Brush Disposal		6												6
Weed Control - Residual			43											43
Insect Control - Scale/PTB				66										66
Mow 4X						6		6	6		6			24
Weed Control - Spot Spray						5			5					11
Fertilizer - Zinc						27								27
Irrigate							25	25	25	25	25	25		153
Fertilizer - Nitrogen							22			13				35
Leaf Analysis										4				4
Pickup Truck Use		11	11	11	11	11	11	11	11	11	11	11	11	129
TOTAL CULTURAL COSTS		167	54	76	11	49	58	42	47	54	42	36	11	646
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Harvest:														
Shake & Catch											466			466
Haul To Dryer											107			107
Dry											866			866
TOTAL HARVEST COSTS											1439			1439
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Assessment:														
California Prune Board											373			373
TOTAL ASSESSMENT COSTS											373			373
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Interest on oper. capital		1	2	2	2	3	3	3	4	4	18			43
TOTAL OPERATING COSTS/ACRE		168	55	79	13	51	61	46	51	58	1872	36	11	2500
TOTAL OPERATING COSTS/TON		41.98	13.87	19.65	3.27	12.81	15.25	11.38	12.80	14.43	467.92	9.05	2.69	625.12
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OVERHEAD:														
Office Expense		13	13	13	13	13	13	13	13	13	13	13	13	154
Liability Insurance				9										9
Sanitation Fees		1	1	1	1	1	1	1	1	1	1	1		7
Property Taxes				41						41				81
Property Insurance				20						20				41
Investment Repairs		1	1	1	1	1	1	1	1	1	1	1	1	17
TOTAL CASH OVERHEAD COSTS		15	15	85	15	15	15	15	15	76	15	15	14	309
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TOTAL CASH COSTS/ACRE		183	70	164	28	66	76	60	66	133	1887	51	25	2810
TOTAL CASH COSTS/TON		45.71	17.60	40.93	7.00	16.54	18.98	15.11	16.53	33.35	471.66	12.79	6.27	702.48
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Table 5. U.C. COOPERATIVE EXTENSION  
WHOLE FARM ANNUAL EQUIPMENT, INVESTMENT, AND BUSINESS OVERHEAD COSTS  
TULARE COUNTY - 1994

ANNUAL EQUIPMENT COSTS

Yr	Description	Price	- Non-Cash Over. -			- Cash Overhead -		Total
			Yrs Life	Depre- ciation	Interest	Insur- ance	Taxes	
94	55 HP 4WD Tractor	34729	15	2084	764	96	191	3134
94	Flail Mower - 10'	6937	10	624	153	19	38	834
94	Pickup Truck - 1/2 Ton	17240	7	2217	379	47	95	2738
94	Weed Sprayer SP	19764	10	1779	435	54	109	2377
TOTAL		78670		6703	1731	216	433	9083
60% of New Cost *		47202		4022	1038	130	260	5450

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

ANNUAL INVESTMENT COSTS

Yr	Description	Price	- Non-Cash Over. -			- Cash Overhead -		Repairs	Total
			Yrs Life	Depre- ciation	Interest	Insur- ance	Taxes		
INVESTMENT									
	Buildings	37000	25	1480	740	93	185	222	2719
	Establishment Cost	130935	21	6235	2619	327	655	0	9836
	Irrigation System	16000	40	400	320	40	80	235	1075
	Land	160000			6400	800	1600	0	8800
	Pruning Tools	200	3	60	4	1	1	50	116
	Shop Tools	10000	30	300	220	28	55	100	703
TOTAL INVESTMENT		354135		8475	10303	1288	2576	607	23249

ANNUAL BUSINESS OVERHEAD COSTS

Description	Units/ Farm	Unit	Price/ Unit	Total Cost
Liability Insurance	40.00	Acre	8.25	330
Office Expense	40.00	Acre	135.00	5400
Sanitation Fees	40.00	Acre	6.00	240

Table 6. U.C. COOPERATIVE EXTENSION  
HOURLY EQUIPMENT COSTS  
TULARE COUNTY - 1994

COSTS PER HOUR

Yr Description	Actual Hours Used	-Non-Cash Over.-			- Cash Overhead -		- Operating -		Total Costs/Hr.
		Depre- ciation	Interest	Insur- ance	Taxes	Repairs	Fuel & Lube	Total Oper.	
94 55 HP 4WD Tractor	57.6	21.72	7.97	1.00	1.99	1.73	3.11	4.84	37.52
94 Flail Mower - 10'	52.3	7.16	1.75	0.22	0.44	2.33	0.00	2.33	11.90
94 Pickup Truck - 1/2 Ton	249.4	5.33	0.91	0.11	0.23	3.13	3.02	6.15	12.74
94 Weed Sprayer SP	18.5	57.75	14.12	1.76	3.53	9.91	0.00	9.91	87.08

Table 7.

U.C. COOPERATIVE EXTENSION  
RANGING ANALYSIS  
TULARE COUNTY - 1994

COSTS PER ACRE AT VARYING YIELDS TO PRODUCE PRUNES

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	YIELD (TON/ACRE)						
	1.5	2.5	3.5	4.0	4.5	5.5	6.5
OPERATING COSTS/ACRE:							
Cultural Cost	646	646	646	646	646	646	646
Harvest Cost	539	899	1259	1439	1618	1978	2338
Assessment Cost	373	373	373	373	373	373	373
Interest on operating capital	36	39	41	43	44	47	49
TOTAL OPERATING COSTS/ACRE	1595	1957	2319	2500	2682	3044	3406
TOTAL OPERATING COSTS/TON	1063	783	663	625	596	553	524
CASH OVERHEAD COSTS/ACRE	309	309	309	309	309	309	309
TOTAL CASH COSTS/ACRE	1904	2266	2629	2810	2991	3353	3716
TOTAL CASH COSTS/TON	1269	907	751	702	665	610	572
NON-CASH OVERHEAD COSTS/ACRE	681	681	681	681	681	681	681
TOTAL COSTS/ACRE	2585	2948	3310	3491	3672	4035	4397
TOTAL COSTS/TON	1723	1179	946	873	816	734	676

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NET RETURNS PER ACRE ABOVE OPERATING COSTS FOR PRUNES

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PRICE (DOLLARS PER TON)	YIELD (TON/ACRE)						
	1.5	2.5	3.5	4.0	4.5	5.5	6.5
600.00	-695	-457	-219	-100	18	256	494
700.00	-545	-207	131	300	468	806	1144
800.00	-395	43	481	700	918	1356	1794
900.00	-245	293	831	1100	1368	1906	2444
1000.00	-95	543	1181	1500	1818	2456	3094
1100.00	55	793	1531	1900	2268	3006	3744
1200.00	205	1043	1881	2300	2718	3556	4394

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NET RETURNS PER ACRE ABOVE CASH COSTS FOR PRUNES

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PRICE (DOLLARS PER TON)	YIELD (TON/ACRE)						
	1.5	2.5	3.5	4.0	4.5	5.5	6.5
600.00	-1004	-766	-529	-410	-291	-53	184
700.00	-854	-516	-179	-10	159	497	834
800.00	-704	-266	171	390	609	1047	1484
900.00	-554	-16	521	790	1059	1597	2134
1000.00	-404	234	871	1190	1509	2147	2784
1100.00	-254	484	1221	1590	1959	2697	3434
1200.00	-104	734	1571	1990	2409	3247	4084

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NET RETURNS PER ACRE ABOVE TOTAL COSTS FOR PRUNES

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PRICE (DOLLARS PER TON)	YIELD (TON/ACRE)						
	1.5	2.5	3.5	4.0	4.5	5.5	6.5
600.00	-1685	-1448	-1210	-1091	-972	-735	-497
700.00	-1535	-1198	-860	-691	-522	-185	153
800.00	-1385	-948	-510	-291	-72	365	803
900.00	-1235	-698	-160	109	378	915	1453
1000.00	-1085	-448	190	509	828	1465	2103
1100.00	-935	-198	540	909	1278	2015	2753
1200.00	-785	52	890	1309	1728	2565	3403

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Table 8.

U.C. COOPERATIVE EXTENSION  
 COSTS AND RETURNS / BREAKEVEN ANALYSIS  
 TULARE COUNTY - 1994

COSTS AND RETURNS - PER ACRE BASIS

Crop	1. Gross Returns	2. Operating Costs	3. Net Returns Above Oper. Costs (1-2)	4. Cash Costs	5. Net Returns Above Cash Costs (1-4)	6. Total Costs	7. Net Returns Above Total Costs (1-6)
Prunes	3600	2500	1100	2810	790	3491	109

COSTS AND RETURNS - TOTAL ACREAGE

Crop	1. Gross Returns	2. Operating Costs	3. Net Returns Above Oper. Costs (1-2)	4. Cash Costs	5. Net Returns Above Cash Costs (1-4)	6. Total Costs	7. Net Returns Above Total Costs (1-6)
Prunes	126000	87517	38483	98347	27653	122185	3815

BREAKEVEN PRICES PER YIELD UNIT

CROP	Base Yield (Units/Acre)	Yield Units	Breakeven Price To Cover		
			Operating Costs	Cash Costs	Total Costs
Prunes	4.0	Ton	625.12	702.48	872.75

BREAKEVEN YIELDS PER ACRE

CROP	Yield Units	Base Price (\$/Unit)	Breakeven Yield To Cover		
			Operating Costs	Cash Costs	Total Costs
Prunes	Ton	900.00	2.8	3.1	3.9