

# U.C. COOPERATIVE EXTENSION

## SAMPLE COSTS TO PRODUCE Mixed Melon IN THE SAN JOAQUIN VALLEY - 1992

by

Jesus Valencia, Stanislaus Co.  
Michelle Le Strange, Tulare & Kings Co.  
Don May, Fresno Co.  
Karen Klonsky, Extension Economist, U.C. Davis  
and  
Pete Livingston, Staff Research Associate, U.C. Davis

The detailed costs for mixed melon production in the San Joaquin Valley are presented in this study. The hypothetical farm used in this report consists of 1200 acres of which 400 acres are in mixed melon. The remainder of the farm is planted to different field and row crops.

Practices described in this study are based on those production procedures considered typical for this crop and area. 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 column is provided to enter your actual costs on Tables 1 and 2, Costs Per Acre To Produce Mixed Melon and Details Of Costs To Produce Mixed Melon, respectively.

This study consists of General Assumptions for Producing Mixed Melon and six tables.

Table 1.	Costs Per Acre To Produce Mixed Melon
Table 2.	Details of Costs Per Acre To Produce Mixed Melon
Table 3.	Monthly Cash Costs Per Acre To Produce Mixed Melon
Table 4.	Annual Equipment, Investment And Business Costs
Table 5.	Hourly Equipment Costs
Table 6.	Ranging Analysis

For an explanation of calculations used for the study refer to the attached General Assumptions, 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 PRODUCING MIXED MELON

San Joaquin Valley - 1992

U.C. Cooperative Extension

The following is a description of some general assumptions pertaining to sample costs of mixed melon production in the San Joaquin Valley. Costs are presented as annual costs per acre. 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. 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:

This cost of production study is based on a 1200 acre field and row crop operation of which 400 acres is dedicated to growing mixed melon. Other crops grown on the same acreage in rotation with mixed melon might include small grains, broccoli, cantaloupe, processing and fresh market tomatoes, field corn, etc.

### 2. RENT AGREEMENT:

The 400 acres used for mixed melon production in this study is rented on a per acre basis. Under this agreement the landowner receives \$200 per acre annually. The landowner is responsible for the of the irrigation system. Interest costs for land, depreciation and the maintenance for the irrigation system is incurred by the landowner.

### 3. CULTURAL PRACTICES:

The cultural, pesticide and fertilizer inputs for the production of mixed melons can vary considerably from grower to grower and field to field. Land preparation operations such as discing, land planing, subsoiling and listing, are done with a 270 hp (horsepower) crawler tractor and occurs in February and March. After bed shaping, successive operations are performed with the 130 hp wheel tractor.

A variety of melons can be grown in the San Joaquin Valley. Mixed melons varieties represented by this study could include honeydew, casaba, Persian, orange flesh, Juan canary, Santa Claus melons, etc. This study does not accurately reflect the costs and practices for growing watermelons.

Nitrogen and phosphate are first applied as a liquid, preplant fertilizer during February when the beds are listed. A total of 17 pounds of nitrogen and 58 pounds of phosphate per acre are incorporated into the beds before planting. The remaining nitrogen is injected into the irrigation water during April adding 120 pounds of nitrogen for a total rate of 137 pounds per acre.

Weed management begins in the spring when the bed are prepared. During this operation any weeds that have emerged are mechanically cultivated. Weed control for the remainder of the season consists of thinning, hand hoeing, mechanical cultivation and an herbicide application.

The irrigation water is supplied by a water district at \$30 per acre foot. A single pre-irrigation of 3 acre-inches is sprinkled onto the beds. This irrigation takes place in March before the fertilizer is worked into the beds. Mixed melons are furrow irrigated 4 additional times during May and June, utilizing another 22 acre-inches of water. Crop use totals 25 acre-inches. Also, during the May irrigation, 120 pounds of N are injected into the irrigation water.

Pest management techniques are used to control several different species of aphids, worms and mites. These applications are put on by air.

The practices and inputs used in this cost study serve only as a sample or a guide. Variations in cultural practices and inputs can be significant. Contact your local farm advisor for advice on production practices.

#### 4. HARVEST, YIELDS & RETURNS:

The mixed melon crop is hand harvested in late June or early July by contract labor. Mixed melons are picked and hauled from the field to the packing shed. Another harvesting option for growers is custom in-field harvesting and packing of mixed melons. This is becoming a common practice in San Joaquin Valley and costs approximately \$3.00 per box before it's cooled. Cost for this type of harvesting is not included in this study. If growers do their own harvesting, all contract harvest costs should be removed from harvest costs in Table 1. The equipment for harvest operations should be inventoried in investment costs on Table 4, and labor, fuel, repairs, depreciation, and operating interest, have to be calculated and added to harvest costs in Table 1.

Crop yield assumed for mixed melons is 12 gross tons per acre. With a pack-out rate of 75%, 9 net tons of melons or 600 boxes per acre are packed. A packed box of mixed melons weighs 30 pounds. Typical mixed melons yields for the last 5 years in the San Joaquin Valley ranged from 200 to 700 boxes per acre. Harvesting, packing, cooling and selling cost will total \$3.35 per box. Different varieties of mixed melons may require cooling before shipping. They may need to be forced air cooled or they may only need to be stored in a cold room. Melons that are harvested early in the morning may not need any cooling. A cooling charge is assumed in this study and would be returned to the grower from the FOB settlement upon sale. The box cost is estimated to be \$0.69 each. Total harvest cost is \$4.04 per box.

Prices in the last 5 years ranged from an average of \$2.32 to \$8.00 per box for growers in the San Joaquin Valley. No specific return price is assumed in this study due to the fluctuation of market prices received by growers. Table 6, Ranging Analysis, shows the net returns above operating costs, cash costs and total costs for various price and yield levels. Differences in mixed melon prices and yields can be substantial over the season.

#### 5. RISK:

The risks associated with fresh market vegetables 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 fresh market vegetable production.

The market for fresh vegetables is very volatile for both price and quantity. Producers do not have control over either of these market components. Because of this, fresh market vegetables are a high risk enterprise. Risk is caused by uncontrollable factors such as a decrease in the demand for mixed melons or an oversupply from other sources. Because of the risk involved, access to a market is crucial. A market channel should be determined before any mixed melon production begins.

Perishability of fresh vegetables diminishes the opportunity to wait for a better market and price. Agronomic difficulties may also increase the risk to growers. Rain can interfere with harvest, planting delays may reduce the chance to sell in an early market or pest and disease might lower quality.

## 7. LABOR:

Basic hourly wages for workers are \$5.97 and \$4.48 per hour for machine operators and field workers respectively. Adding 34% for SDI, FICA, insurance and other benefits gives the labor rates shown of \$8.00 per hour for machine operators and \$6.00 per hour for field labor. The labor for operations involving machinery are 10% higher than the machine hours to account for the extra labor involved in equipment set-up, moving, maintenance and repair. Wages for managers are not included as a cash cost. Any returns above total costs are considered a return to management.

## 8. OVERHEAD:

County taxes are calculated as 1% of the average of the equipment, buildings and improvements. Insurance is charged at 0.5% of the average value of the equipment over its useful life. Office and business costs are estimated at \$30 per acre for the ranch. The expenses include office supplies, phone, bookkeeping, accounting, legal fees, road preparation and maintenance, etc.

## 9. INTEREST:

Interest on operating capital is based on cash costs and is calculated monthly, for five months, until harvest at the rate of 9.00% per year. Adjustments for inflation have not been included in these interest rates. Interest is also charged on investment at 4.00% 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 buildings and equipment.

## 10. INVESTMENT:

The investments shown in Table 4 are those that are partially or completely allocated to the mixed melon operation. Investments including the fuel wagon, buildings, shop tools, etc., can be used by the whole farm so only a portion of the costs are assigned to the mixed melon operation and the rest of the costs are distributed to the other farm enterprises. Annual investments shown in Table 1 represent depreciation and opportunity cost for each investment on an annual per acre basis.

## 11. EQUIPMENT COSTS:

In allocating the equipment costs per acre, the following calculations were made and shown in Table 4: (a) Original Cost of equipment is the cost of the new equipment plus sales tax. (b) Depreciation is straight line with a ten percent 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 4.00%. Average value equals new cost plus salvage value divided by 2 on a per acre basis. (d) Total investment costs are also calculated as 60% of the depreciation and the interest costs for all new equipment to reflect a mix of the new and used equipment. These values are also used in Table 1. Most of this equipment is used on the entire 1200 acre ranch and part of the cost of the equipment can be allocated to other enterprises.

## 12. FUEL & REPAIR:

The fuel and repair cost for each operation in Table 1 is determined by multiplying the total hourly operating cost for each piece of equipment by the number of hours per acre for that operation. Prices for on-farm delivery of gasoline and diesel are \$0.71 and \$0.98 per gallon respectively.

Table 1.

U.C. COOPERATIVE EXTENSION  
 COSTS PER ACRE TO PRODUCE MIXED MELONS  
 SAN JOAQUIN VALLEY - 1992

Labor Rate: \$10.00/hr. machine labor      Interest Rate: 9.00%  
 \$7.00/hr. non-machine labor      Yield per Acre: 450 boxes

Operation	Operation Time (Hrs/A)	Labor Cost	Fuel & Repairs	Cash and Labor Material Cost	Costs per Acre Custom/Rent	Total Cost	Your Cost
<b>Cultural:</b>							
Disc 2X	0.29	3.43	8.30	0.00	0.00	11.73	
Subsoil	0.29	3.43	7.21	0.00	0.00	10.64	
Disc	0.23	2.79	7.22	0.00	0.00	10.00	
Land Plane Field	0.15	1.85	3.96	0.00	0.00	5.81	
Preirrigate	0.50	3.50	0.00	7.50	31.25	42.25	
List Beds and Fertilize	0.17	2.00	2.25	22.97	0.00	27.22	
Seed Bed Preparation	0.13	1.55	1.77	0.00	0.00	3.32	
Plant	0.27	3.29	4.04	12.00	0.00	19.33	
Cultivate	0.21	2.58	2.79	0.00	0.00	5.37	
Split Beds	0.21	2.58	2.79	0.00	0.00	5.37	
Thin Stand & Hoe Weeds	0.00	0.00	0.00	0.00	50.00	50.00	
Fertilize	0.21	2.58	2.96	27.98	0.00	33.53	
Spray Herbicide	0.14	1.71	1.82	6.05	0.00	9.58	
Incorporate Herbicide	0.20	2.40	3.48	0.00	0.00	5.88	
Irrigate	0.84	5.88	0.00	55.00	0.00	60.88	
Hoe Weeds	0.00	0.00	0.00	0.00	50.00	50.00	
Spray Insecticides 2X	0.00	0.00	0.00	30.75	6.75	37.50	
Pollinate	0.00	0.00	0.00	15.00	0.00	15.00	
Pickup Truck Use	0.23	2.70	1.43	0.00	0.00	4.13	
<b>TOTAL CULTURAL COSTS</b>	<b>4.08</b>	<b>42.27</b>	<b>50.03</b>	<b>177.25</b>	<b>138.00</b>	<b>407.55</b>	
<b>Harvest:</b>							
Pick, Haul, Pack, Cool & Sell	0.00	0.00	0.00	0.00	2424.00	2424.00	
<b>TOTAL HARVEST COSTS</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2424.00</b>	<b>2424.00</b>	
<b>Postharvest:</b>							
Disc Crop Residue 2X	0.29	3.43	4.93	0.00	0.00	8.36	
<b>TOTAL POSTHARVEST COSTS</b>	<b>0.29</b>	<b>3.43</b>	<b>4.93</b>	<b>0.00</b>	<b>0.00</b>	<b>8.36</b>	
Interest on operating capital @ 9.00%							24.93
<b>TOTAL OPERATING COSTS/ACRE</b>		<b>45.70</b>	<b>54.96</b>	<b>177.25</b>	<b>2562.00</b>	<b>2868.34</b>	
<b>TOTAL OPERATING COSTS/BOX</b>							<b>4.78</b>
<b>CASH OVERHEAD:</b>							
Land Rent							200.00
Office Expense							30.00
Property Taxes							2.00
Equipment Insurance							1.00
Investment Repairs							0.40
<b>TOTAL CASH OVERHEAD COSTS</b>							<b>233.39</b>
<b>TOTAL CASH COSTS/ACRE</b>							<b>3101.73</b>
<b>TOTAL CASH COSTS/BOX</b>							<b>5.17</b>
<b>NON-CASH OVERHEAD:</b>							
Investment	Per producing Acre	Depreciation	Annual Cost	Interest @ 4.00%			
Shop Building	30.83	1.54		0.62			2.16
Fuel Tanks & Pumps	6.71	0.34		0.13			0.47
Shop Tools	8.33	0.42		0.17			0.58
Fuel Wagon	1.25	0.11		0.03			0.14
Tool Carrier	10.17	0.46		0.22			0.68
Equipment	309.91	22.39		6.82			29.21
<b>TOTAL NON-CASH OVERHEAD COSTS</b>	<b>367.20</b>	<b>25.26</b>		<b>7.99</b>			<b>33.24</b>
<b>TOTAL COSTS/ACRE</b>							<b>3134.98</b>
<b>TOTAL COSTS/BOX</b>							<b>5.22</b>

U.C. COOPERATIVE EXTENSION  
 Table 2. DETAILS OF COSTS PER ACRE TO PRODUCE MIXED MELONS  
 SAN JOAQUIN VALLEY - 1992

Use of trade names does not constitute an endorsement or recommendation by the University of California nor is any criticism implied by omission of other similar products.

Labor Rate: \$10.00/hr. machine labor Interest Rate: 9.00%  
 \$7.00/hr. non-machine labor

	Quantity/Acre	Unit	Price or Cost/Unit	Value or Cost/Acre	Your Cost
OPERATING COSTS					
Water:					
Water	25.00	acin	2.50	62.50	
Rent:					
Sprinkler Pipe	1.00	acre	31.25	31.25	
Fertilizer:					
10-34-0	15.21	gal	1.51	22.97	
Lbs of N = 11.6 lbs/gal X .1 X 15.21 gal					
UN-32	31.80	lb.	0.88	27.98	
Lbs of N = 11.1 lbs/gal X .32 X 31.80 gal					
Seed:					
Melon Seed	2.00	lb	6.00	12.00	
Contract:					
Thin	0.50	acre	50.00	25.00	
Hoeing	1.50	acre	50.00	75.00	
Herbicide:					
Treflan PRO 5	1.00	pint	6.05	6.05	
Insecticide:					
Thiodan EC	1.30	pint	5.54	7.20	
Kelthane	3.00	lb	7.85	23.55	
Custom:					
Air Application	1.00	acre	6.75	6.75	
Harvest	600.00	box	4.04	2424.00	
Pollination:					
Bees	1.00	hive	15.00	15.00	
Labor (machine)	3.63	hrs	10.00	36.32	
Labor (non-machine)	1.34	hrs	7.00	9.38	
Fuel - Gas	0.66	gal	0.97	0.64	
Fuel - Diesel	32.74	gal	0.71	23.24	
Lube				3.58	
Machinery repair				27.50	
Interest on operating capital @ 9.00%				24.93	
TOTAL OPERATING COSTS/ACRE				2868.34	
TOTAL OPERATING COSTS/BOX				4.78	
CASH OVERHEAD COSTS:					
Land Rent				200.00	
Office Expense				30.00	
Property Taxes				2.00	
Equipment Insurance				1.00	
Investment Repairs				0.40	
TOTAL CASH OVERHEAD COSTS/ACRE				233.39	
TOTAL CASH COSTS/ACRE				3101.73	
TOTAL CASH COSTS/BOX				5.17	
NON-CASH OVERHEAD COSTS (DEPRECIATION & INTEREST):					
Shop Building				2.16	
Fuel Tanks & Pumps				0.47	
Shop Tools				0.58	
Fuel Wagon				0.14	
Tool Carrier				0.68	
Equipment				29.21	
TOTAL NON-CASH OVERHEAD COSTS/ACRE				33.24	
TOTAL COSTS/ACRE				3134.98	
TOTAL COSTS/BOX				5.22	

Table 3.

U.C. COOPERATIVE EXTENSION  
MONTHLY CASH COSTS PER ACRE TO PRODUCE MIXED MELONS  
SAN JOAQUIN VALLEY - 1992

Beginning FEB 92	FEB 92	MAR 92	APR 92	MAY 92	JUN 92	JUL 92	AUG 92	SEP 92	OCT 92	NOV 92	DEC 92	JAN 93	TOTAL
Ending JAN 93													
Cultural:													
Disc 2X	11.73												11.73
Subsoil	10.64												10.64
Disc	4.26	5.74											10.00
Land Plane Field		5.81											5.81
Preirrigate		42.25											42.25
List Beds and Fertilize		27.22											27.22
Seed Bed Preparation		3.32											3.32
Plant		19.33											19.33
Cultivate				5.37									5.37
Split Beds				5.37									5.37
Thin Stand & Hoe Weeds				50.00									50.00
Fertilize				33.53									33.53
Spray Herbicide				9.58									9.58
Incorporate Herbicide				5.88									5.88
Irrigate				31.47	17.94	11.47							60.88
Hoe Weeds					50.00								50.00
Spray Insecticides 2X					37.50								37.50
Pollinate					15.00								15.00
Pickup Truck Use	0.59	0.59	0.59	0.59	0.59	0.59	0.59						4.13
TOTAL CULTURAL COSTS	27.23	104.26	0.59	141.78	121.03	12.06	0.59						407.55
Harvest:													
Pick, Haul, Pack, Cool & Sell						2424.00							2424.00
TOTAL HARVEST COSTS						2424.00							2424.00
Postharvest:													
Disc Crop Residue 2X							8.36						8.36
TOTAL POSTHARVEST COSTS							8.36						8.36
Interest on oper. capital	0.20	0.99	0.99	2.05	2.96	17.73							24.93
TOTAL OPERATING COSTS/ACRE	27.44	105.25	1.58	143.84	123.99	2457.29	8.95						2868.34
TOTAL OPERATING COSTS/BOX	0.05	0.18	0.00	0.24	0.21	4.10	0.01						4.78
OVERHEAD:													
Land Rent					200.00								200.00
Office Expense	4.29	4.29	4.29	4.29	4.29	4.29	4.29						30.00
Property Taxes					2.00								2.00
Equipment Insurance					1.00								1.00
Investment Repairs	0.06	0.06	0.06	0.06	0.06	0.06	0.06						0.40
TOTAL CASH OVERHEAD COSTS	4.34	4.34	4.34	4.34	207.34	4.34	4.34						233.39
TOTAL CASH COSTS/ACRE	31.78	109.59	5.92	148.18	331.33	2461.63	13.29						3101.73
TOTAL CASH COSTS/BOX	0.05	0.18	0.01	0.25	0.55	4.10	0.02						5.17

Table 4.

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

ANNUAL EQUIPMENT COSTS

Yr	Description	Price	Yrs Life	- Non-Cash Over. -		Cash Overhead -		Total
				Depre- ciation	Interest	Insur- ance	Taxes	
92	130 hp 2wd Tractor	77359	12	5801.92	1701.90	212.74	425.48	8142.04
92	270 hp Crawler	151940	12	11395.50	3342.68	417.84	835.67	15991.69
92	Cultivator - Rolling	6500	15	390.00	143.00	17.88	35.75	586.63
92	Cultivator Sled	3745	15	224.67	82.40	10.30	20.60	337.97
92	Cultivator Sled	3745	15	224.67	82.40	10.30	20.60	337.97
92	Disc - Offset 18'	20230	15	1213.80	445.06	55.63	111.27	1825.76
92	Disc - Offset 26'	27310	15	1638.60	600.82	75.10	150.21	2464.73
92	Disc - Stubble 16'	18622	15	1117.33	409.68	51.21	102.42	1680.64
92	Incorporator, 15'	19260	15	1155.60	423.72	52.96	105.93	1738.21
92	Lister - 3 Row 16'	2838	15	170.27	62.44	7.81	15.61	256.13
92	Pickup Truck - 1/2 Ton	17655	7	2269.86	388.42	48.55	97.11	2803.94
92	Planter & Sled - 3 Row	5700	10	513.00	125.40	15.67	31.35	685.42
92	Saddle Tank - 300 Gal	1650	10	148.50	36.30	4.54	9.07	198.41
92	Saddle Tank - 300 Gal	1650	10	148.50	36.30	4.54	9.07	198.41
92	Subsoiler - 8'	6955	12	521.58	153.02	19.13	38.25	731.98
92	Triplane - 16'	17527	15	1051.60	385.60	48.20	96.40	1581.80
TOTAL		382686		27985.40	8419.14	1052.40	2104.79	39561.73
60% of New Cost *		229612		16791.24	5051.48	631.44	1262.87	23737.04

\* 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									
	Fuel Tanks & Pumps	8050	20	402.50	161.00	20.13	40.25	125.00	748.88
	Fuel Wagon	1500	10	135.00	33.00	4.13	8.25	50.00	230.38
	Shop Building	37000	20	1850.00	740.00	92.50	185.00	100.00	2967.50
	Shop Tools	10000	20	500.00	200.00	25.00	50.00	100.00	875.00
	Tool Carrier	12200	20	549.00	268.40	33.55	67.10	100.00	1018.05
TOTAL INVESTMENT		68750		3436.50	1402.40	175.31	350.60	475.00	5839.81

ANNUAL BUSINESS OVERHEAD COSTS

Description	Units/ Farm	Unit	Price/ Unit	Total Cost
Land Rent	400.00	acre	200.00	80000.00
Office Expense	1200.00	acre	30.00	36000.00

Table 5.

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

Yr	Description	Actual Hours Used	COSTS PER HOUR							Total Costs/Hr.
			-Non-Cash Over.- Depre- ciation	Interest	Cash Overhead - Insur- ance	Taxes	Operating Repairs	Fuel & Lube	Total Oper.	
92	130 hp 2wd Tractor	1018.0	3.42	1.00	0.13	0.25	4.64	6.16	10.80	15.60
92	270 hp Crawler	1057.4	6.47	1.90	0.24	0.47	7.60	13.51	21.11	30.18
92	Cultivator - Rolling	165.6	1.41	0.52	0.06	0.13	1.87	0.00	1.87	3.99
92	Cultivator Sled	172.0	0.78	0.29	0.04	0.07	1.07	0.00	1.07	2.25
92	Cultivator Sled	166.0	0.81	0.30	0.04	0.07	1.07	0.00	1.07	2.30
92	Disc - Offset 18'	165.4	4.40	1.61	0.20	0.40	5.81	0.00	5.81	12.44
92	Disc - Offset 26'	165.9	5.93	2.17	0.27	0.54	7.84	0.00	7.84	16.75
92	Disc - Stubble 16'	165.4	4.05	1.49	0.19	0.37	5.35	0.00	5.35	11.45
92	Incorporator, 15'	166.0	4.18	1.53	0.19	0.38	5.53	0.00	5.53	11.81
92	Lister - 3 Row 16'	165.7	0.62	0.23	0.03	0.06	0.82	0.00	0.82	1.74
92	Pickup Truck - 1/2 Ton	267.0	5.10	0.87	0.11	0.22	3.12	3.25	6.37	12.67
92	Planter & Sled - 3 Row	119.6	2.57	0.63	0.08	0.16	2.86	0.00	2.86	6.30
92	Saddle Tank - 300 Gal	119.7	0.74	0.18	0.02	0.05	0.83	0.00	0.83	1.82
92	Saddle Tank - 300 Gal	143.1	0.62	0.15	0.02	0.04	0.83	0.00	0.83	1.66
92	Subsoiler - 8'	208.4	1.50	0.44	0.06	0.11	2.00	0.00	2.00	4.11
92	Triplane - 16'	165.5	3.81	1.40	0.17	0.35	2.54	0.00	2.54	8.28



Table 6.

U.C. COOPERATIVE EXTENSION  
RANGING ANALYSIS  
SAN JOAQUIN VALLEY - 1992

COSTS PER ACRE AT VARYING YIELDS TO PRODUCE MELONS							
	YIELD (BOX/ACRE)						
	300	400	500	600	700	800	900
OPERATING COSTS/ACRE:							
Cultural Cost	408	408	408	408	408	408	408
Harvest Cost	1212	1616	2020	2424	2828	3232	3636
Postharvest Cost	8	8	8	8	8	8	8
Interest on operating capital	19	22	25	28	31	34	38
TOTAL OPERATING COSTS/ACRE	1647	2054	2461	2868	3275	3682	4089
TOTAL OPERATING COSTS/BOX	5.49	5.14	4.92	4.78	4.68	4.60	4.54
CASH OVERHEAD COSTS/ACRE	233	233	233	233	233	233	233
TOTAL CASH COSTS/ACRE	1881	2288	2695	3102	3509	3916	4323
TOTAL CASH COSTS/BOX	6.27	5.72	5.39	5.17	5.01	4.89	4.80
NON-CASH OVERHEAD COSTS/ACRE	33	33	33	33	33	33	33
TOTAL COSTS/ACRE	1914	2321	2728	3135	3542	3949	4356
TOTAL COSTS/BOX	6.38	5.80	5.46	5.22	5.06	4.94	4.84

NET RETURNS PER ACRE ABOVE OPERATING COSTS FOR MIXED MELONS							
PRICE (DOLLARS PER BOX)	YIELD (BOX/ACRE)						
	200	300	400	500	600	700	800
2.00	-1047	-1254	-1461	-1668	-1875	-2082	-2289
3.00	-747	-854	-961	-1068	-1175	-1282	-1389
4.00	-447	-454	-461	-468	-475	-482	-489
5.00	-147	-54	39	132	225	318	411
6.00	153	346	539	732	925	1118	1311
7.00	453	746	1039	1332	1625	1918	2211
8.00	753	1146	1539	1932	2325	2718	3111

NET RETURNS PER ACRE ABOVE CASH COSTS FOR MIXED MELONS							
PRICE (DOLLARS PER BOX)	YIELD (BOX/ACRE)						
	300	400	500	600	700	800	900
2.00	-1281	-1488	-1695	-1902	-2109	-2316	-2523
3.00	-981	-1088	-1195	-1302	-1409	-1516	-1623
4.00	-681	-688	-695	-702	-709	-716	-723
5.00	-381	-288	-195	-102	-9	84	177
6.00	-81	112	305	498	691	884	1077
7.00	219	512	805	1098	1391	1684	1977
8.00	519	912	1305	1698	2091	2484	2877

NET RETURNS PER ACRE ABOVE TOTAL COSTS FOR MIXED MELONS							
PRICE (DOLLARS PER BOX)	YIELD (BOX/ACRE)						
	300	400	500	600	700	800	900
2.00	-1314	-1521	-1728	-1935	-2142	-2349	-2556
3.00	-1014	-1121	-1228	-1335	-1442	-1549	-1656
4.00	-714	-721	-728	-735	-742	-749	-756
5.00	-414	-321	-228	-135	-42	51	144
6.00	-114	79	272	465	658	851	1044
7.00	186	479	772	1065	1358	1651	1944
8.00	486	879	1272	1665	2058	2451	2844