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PARSLEY PRODUCTION COSTS AND PROFITABILITY ANALYSIS

VENTURA COUNTY

Parsley Field, Oxnard, Ventura County, California. Picture Source, Oleg Daugovish, Farm Advisor, 2024,

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ABSTRACT

We developed this study for existing and prospective growers, and allied industries to provide information on the financial requirements for producing parsley in Ventura County and analyzing enterprise profitability. The primary data source for the study is a panel of growers and allied industries that we interviewed in the Spring of 2024 with follow-up reviews and revisions in 2025. We also used references from the Ventura County Agricultural Report 2020-2023 for yield and price averages. The total cost to produce parsley in 2025, using a yield of 2,200 cartons per acre, approximates $14,759 per acre. Using a price received of $8.60 per carton, profit before paying management, is estimated at $4,713 per acre. We also provided a range analysis to show profitability at variable yield and price options to account for possible yield differences and prices received by farms within the region.

INTRODUCTION

Ventura County produces a diversity of vegetable crops and herb crops. Parsley is an herb crop that has exhibited acreage increase in the past decade in the County. Between 2002 and 2022 the Parsley acreage more than doubled (Figure 1) in Ventura County. Nutritional value and health benefits are among the factors considered to increase demand and consumption of the crop.

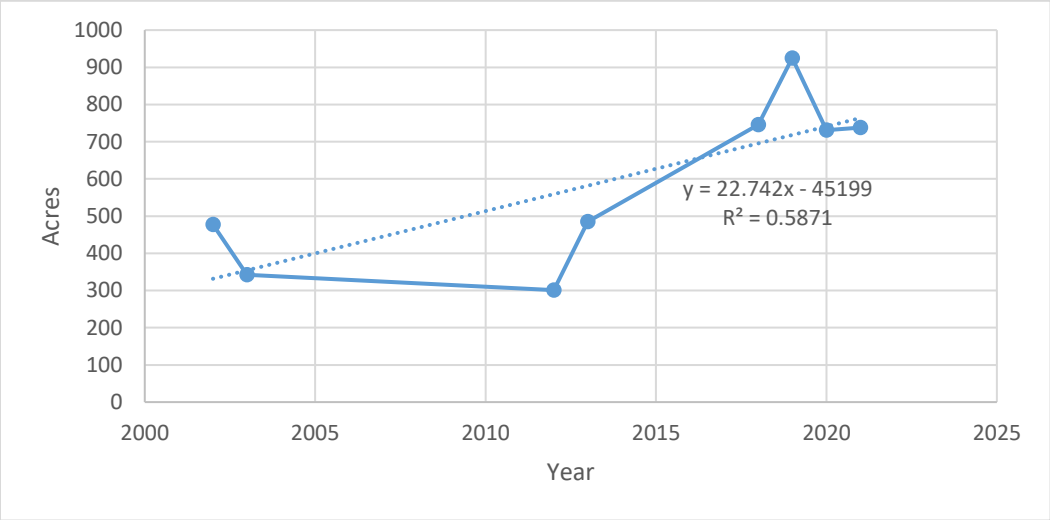


Figure 1. Parsley Acreage Trend in Ventura County, California

Crop Reports – Agriculture / Weights & Measures, *2000-2023*

This is the first sample production cost and profitability study for parsley in Ventura County. The objective is to provide growers and investors with financial tools to analyze the profit of parsley production as an enterprise; to use it as a financial transactions tool such as for loan requests by growers and loan analyses by lenders; and for evaluation of insurance claims and asset appraisals by allied industries. Government agencies such as the California Department of

Agriculture (CDFA) and the United States Department of Agriculture (USDA) also use the information when developing and implementing agricultural policies and programs.

ASSUMPTIONS

We based our study on production practices that we collected from a growers panel, pest control advisors and the UCCE Farm Advisor for Ventura County in March of 2024 with follow up reviews and revisions in 2025. Typical production practices we collected via the interview and the enterprise budget development methods are provided below. Materials, equipment, contract services, labor wages and production revenues (unless otherwise specified) are determined in 2024-2025 prices.

Farm Size: We based our study on an 800 acres farm, the average farm size of the growers in our interview panel. Double cropping is common in Ventura County; therefore, the total land farmed for this sample approximates 1,600 acres per year. Growers produce multiple crops each year. Hence, planting and harvesting vegetable crops are year-round activities. In our growers' interview, the most common crop mix in a farm includes bell pepper, celery, spinach, radish, cabbage, parsley and cilantro. Parsley production is considered 20% of the 1,600 acres farmed each year and is produced only once a year. In this study parsley production is on 320 acres.

PRODUCTION PRACTICES

Land preparation: Growers in our interview pool stated several operations for land preparation including multiple discing (three times in this study), ripping the soil (twice) to break up any underlying compacted soil, plowing (once), land plane (three times) leveling using a triplane (once), chiseling (twice), and furrowing (once). Preplant fertilizer (about 300-350lbs./acre of 15-15-15) is applied along with the listing operation and preplant-irrigation with about 2-acre inches applied after the ground is shaped and rolled into beds.

Planting, Stand Establishment and Growing Period: Seeding is approximately 22 pounds per acre. Parsley varieties grown in California include Cruspum (most common), Tuberosum and Neapolitanum. All have similar production, harvesting, and marketing practices. In Ventura County, Parsley can be planted in the fall, winter or spring. For this study we considered February planting with the first cut after 60 days at the beginning of April and subsequent 4 cuttings every 45 days with an overall production period of about 8 months.

Irrigation. Sprinkler irrigation is commonly used prior to planting and during germination. Growers can purchase or rent sprinkler irrigation systems. Growers can irrigate a field, a portion at a time, moving pumps, pipes, and fittings manually from field to field. For this study, we assumed that sufficient pumps, pipes, and fittings are available to irrigate 400 acres at a time. Pipes are transported using a trailer and a tractor. Spreading the sprinkler pipes takes 30 minutes of manual labor per acre and removing takes about the same. After the seedlings have emerged, growers switch to drip irrigation system.

Irrigation of a parsley crop uses 2 acre-inches of water pre-planting and 4 acre inches per acre per crop for growing. which means for five crops, total water use would be 22 acre inches per

acre for the entire growing period of 8 months. We assumed irrigation in the growing period applied about every 10 days a total of 20 irrigations 1 acre inch per acre each time.

The cost of irrigation water may vary depending on whether district or well water is used. In this study, production is in the Oxnard plains where growers use both well and district water. In this study we assumed that one-third of the water is from the district at $1,066 per acre foot ($88.83 per acre inch) and two-thirds of the water pumped from wells.

Energy use for pumping includes both diesel fuel and electric power. The amount of diesel and electricity consumption for pumping depends on pump horsepower (hp). In our study, we used 100 hp diesel pumps and 70 hp electric pumps. We estimated that 24 gallons per acre of diesel and about 269 kilowatts (kW) of electricity per acre would be needed during the production period for parsley.

Irrigation labor for inspection and maintenance of the system is estimated at about 30 minutes per acre per irrigation for sprinklers (pre irrigation). In production period using drip irrigation, irrigation requires about 20 minutes per acre per irrigation for inspection (approximately 7 hours per acre).

Fertilization. In this study, 15-15-15 is applied pre plant at 325 lbs. per acre through the irrigation system. In the growing period, CAN17 is applied via the drip system at 12 gallons per acre per crop, a total of 5 times for five crops.

Pest and disease management. Growers can be licensed, or hire pest control advisors (PCA), licensed by the State of California, to perform pest treatments. Pesticide use permits are obtained from the Agricultural Commissioner's office. Pest management information is also available on the UC Statewide Integrated Pest Management Project website, https://ipm.ucanr.edu/agriculture/ . Each pesticide treatment may cost around $50.00 per acre for PCA application fees.

Insects that can affect parsley production include aphids and worms which are controlled with 1 or 2 treatments per crop, depending on need and preharvest interval. In this study, imidacloprid treatments are included, one pint per cutting per acre.

Diseases that can affect the parsley crop are Septoria leaf spot, Bacterial Leaf Spot, Carrot Motley Dwarf Virus, Alternaria, and Powdery Mildew. In this study, we included treatment for powdery mildew one time per crop. For foliar fungal diseases in parsley production, clean seed and use of or drip irrigation help maintain dry foliage and when coupled with preventive fungicide such as Quadris Flowable Fungicide can minimize development of powdery mildew and Septoria leaf spot.

Weed management. Weed management used in this study includes chemical control such as Caparol custom applied by Pest Control Advisors (PCA) right after seeding. In infested fields where weeds germinated after herbicide treatment and in between crops (cuttings), we assumed hand weeding of about 10 hours.

Harvest and Sell: The parsley crop is hand harvested, and field packed in cartons for fresh market. Mechanical harvest can be done for dried products; however, this study includes only the

fresh market. In the USA, No. 1 parsley is the only USDA grade. Each carton typically contains about 20-25 lbs. and contains about 60 count packs. For our study we used a carton size weighing 20 lbs.

Parsley is usually cut at 1 to 1¼ inches above the crown of the plant and allowed to regrow for the following cutting. Unmarketable plants can be left unharvested while discolored leaves on some harvested plants are avoided from packing. To maintain green color and freshness, parsley is hydrocooled or packed on ice to remove field heat and maintain crispness. There are 5 parsley cuttings for this study. For storage, warehouses with forced air-cooling temperatures of 32 to 36 degrees Fahrenheit are used.

Harvesting costs are estimated at $0.43 per carton for the carton itself, $1.18 per carton for picking and packing, $0.65 per carton for loading and hauling and $0.50 per carton for cooling and selling.

Disposing of Crop Residue: After harvest, the field is disced twice to incorporate all crop residues into the soil.

CASH OVERHEAD COSTS

Food Safety Program. We did not include food safety costs in this study because of a lack of sufficient information. Growers can access Good Agriculture Practice (GAP) guidelines developed by the United States Department of Agriculture to reduce food safety hazards on farm operations and for minimizing microbial contamination during the growing and harvesting seasons. Annual GAP audit and certification available. Each farm operation will be different; therefore, growers should decide on the GAP certification program that best fits their needs. The cost of most third-party GAP audit and certification programs is not public information. However, the United Fresh Produce Association pre-farm-gate matrix can provide average fees for GAP certification.

Regarding waste discharge control of water, the Los Angeles regional board, which overseas Ventura County, regulates discharges from irrigated farmlands. Information regarding waiver programs, reporting requirements and fees can be obtained from the Los Angeles regional board. Overall, the costs of food safety from previous studies showed only a very small portion of the total cost of production.

Interest on Operating Capital: Interest is charged on borrowed money or is an opportunity cost for using in-house funds for operating inputs. It is charged until income is received from the crop at harvest. We calculated interest on operating capital at a nominal rate of 5.87 percent per year. A nominal interest rate is the current market cost of borrowed funds for short-term loans.

Land rent. Land rental contracts and charges for agricultural production can vary widely by region and depend on the availability of well water on the property. In Ventura County, if there is a well on the property, the landlord often pays for the pump, the permanent parts of the irrigation facilities, and the costs of maintaining the well. The grower is generally responsible for the costs of energy needed to pump water.

This study assumes an average cash rent of $2,500 per acre per year ($208 per acre per month). Using an 8 -months average growth period from land preparation to the end of the 5 cuttings, the parsley enterprise is charged a rent of $1,664 per acre.

Property taxes. We calculated property taxes at the County's base rate of 1 percent on the value of all farm property, including equipment, buildings, and improvements. No additional special assessment districts charges on property taxes are included.

Insurance. Insurance for property protection is calculated at $0.71 per $1000 of the average value of property/assets. In addition, liability insurance for 800 acres farm size would be $1,461 per year. Liability insurance covers accidents on the entire farm.

Supervisors, foremen, and management. Interview information indicated that the size of farm we used in this study would require an average of about two employees working as supervisors or foremen. Wages including benefits are estimated at $240 per acre per year. For the 8 months growth period, the parsley enterprise is charged $160 per acre for supervisory and foreman duties.

Most growers in the survey did not provide management costs, and because of the wide variations in wages and salaries for professional managers, this study does not include management fees. We suggest that, after all production costs have been subtracted from receipts, the residual may be allocated to profit or management income.

Office expenses. Expenses in this category include office supplies such as printers, computers, telephones, and paper and service fees for bookkeeping, accounting, legal fees, and so on. Our interview average for office expenses is about $400 per acre per year, which is ~$266 per acre for approximately 8 months of parsley crop production period.

Labor*:* Labor includes both owner and hired labor with the same wage rate. Information on farm labor wages in Oxnard 2024 is obtained; https://www.ziprecruiter.com/Salaries/Farm-Worker-Salary-in-Oxnard,CA. Hourly labor wages plus 46% benefits (workers compensation, social security, Medicare insurance, and other possible benefits) are $32.56 per hour for machine operators and $25.16 per hour for non-skilled workers.

Machinery labor hours are calculated at 20 percent more than actual hours of labor to account for equipment setup, moving, maintenance, and repair.

Equipment operating cash costs: Equipment operating cash costs for fuel, lubrication, and repairs are calculated using formulas and coefficients developed by the American Society of Agricultural Engineers (ASAE). More information is available in Michael D. Boehlje, et.al,1984 and other farm management books and literature.

State prices for gas and diesel in 2024 include $4.78 for gas and $4.92 for diesel. https://gasprices.aaa.com/state-gas-price-averages/ The cost of energy for electric irrigation pumps is $0.30 per kW.

NONCASH OVERHEAD COSTS

We calculated the non-cash overhead or ownership costs of assets (including farm equipment and other investments like irrigation system, buildings, fuel tank, and pumps) using the capital recovery method. This method helps growers calculate an annual amount of money to charge the enterprise so that the value of assets is recovered within a specified period at the investment interest rate. The formula for calculating capital recovery is as follows:

Capital Recovery Per Year = [(Purchase Price – Salvage Value) x Capital Recovery Factor] + (Salvage Value x Interest Rate)

Where:

Purchase Price: All assets are in 2024 prices. Farms use a mix of old and new investments; therefore, the overall value of the asset is estimated at 60% of the 2024 value.

Salvage Value is an estimate of the remaining value of an investment at the end of its useful life. In this study, the remaining values for farm machinery are calculated at approximately 10% of the purchase prices. Other investments such as drip irrigation system are assumed to depreciate fully with no remaining values. Land is always calculated at its current value.

Capital Recovery Factor is the amortization or the repayment factor for capital investments. It is used to determine equal annual payments needed to recover an investment at a specified interest rate over the life of the capital.

The interest rate in this study is 5.75%, the approximate long-run rate of return of agricultural assets to current income in California.

Capital recovery factors can be found in farm management books (Boelje, Michael D., et. al 1984). Simply locate the interest rate and number of useful years of the investment/asset to determine the capital recovery factor. Capital recovery costs for assets used in this study are provided in Table ----.

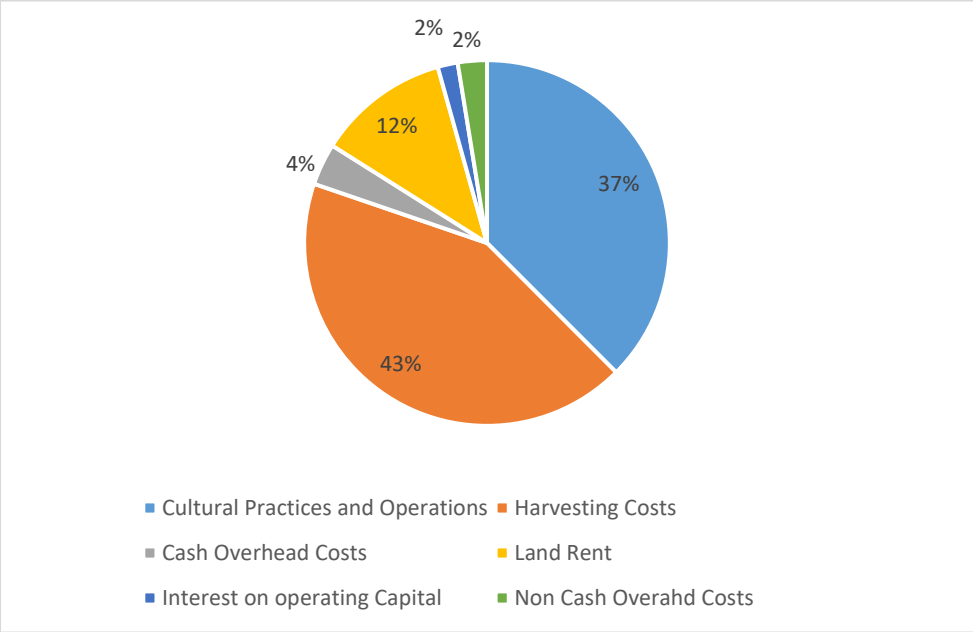
CROP RETURNS

Crop returns are calculated as yield per acre times price per carton. Parsley yield may vary from farm to farm. In our sample study, we used 2,200 cartons per acre. Each caron is approximately 20 lbs. Average cilantro prices for the county are provided in the Ventura County Agricultural Crop Reports. We used a price of $9.00 per carton.

SUMMARY

Our estimate of the total cost of parsley production in the Oxnard Valley of the Ventura County in 2025 is $14,207 per acre (tables 1 and 2). Table 1 provides costs by type of operation, and table 2 provides costs by input. The pie graph below shows the breakdown of costs.

Figure 2. Proportion of Production Costs for Parsley, Ventura County, 2024



Where:

Operating Costs are the material and the machinery operating costs for planting, weed, disease and pest control, fertilization, and irrigation. Machinery operating costs are fuel, repairs and maintenance and labor a

Harvesting costs include material, labor and machinery operating costs for picking, packing and hauling.

Cash overhead costs include liability and property insurances, leaf analysis, sanitation fees, office expenses, property taxes, and investment repairs.

Land rent is the leasing cost per acre for parsley production.

Interest on operating capital is the short-term interest on operating expenses.

Noncash overhead costs include capital recovery of the value of assets used in the production of parsley.

PROFITABILITY ANALYSIS

We analyzed profitability using (i) break-even costs (ii) gross margin and (iii) economic margin

Break-even cost/prices: Allow growers to compare the expected market price with the unit cost of production. The break-even price using the 2,200 cartons per acre yield assumption in this study equals ~$6.29 per carton for cash costs and ~$6.50 per carton for total costs (not including

management). Break-even levels are calculated as the cost of production per acre divided by yield per acre.

Gross margin, the income above cash costs is what growers often refer to as profit if there is no debt on the farming operation. If you deduct depreciation, it also approximates taxable income. Gross margin is calculated as gross returns (price times yield) minus cash costs of production (operating costs). In this study, the gross margin is $5,078 per acre.

Economic profit: the income above total costs is gross returns (price times yield) minus total costs. In this study, management charges are not included. Therefore, the profit of $4,713 per acre can be defined as returns to management and business profit.

RANGE ANALYSES

Yield and prices of farmers may vary from the assumption we used in this study. Therefore, we provided breakeven costs, gross margin and economic profit using various combinations of prices and yield to show profitability for yield and prices that are lower and higher than that used in the sample study (Table 4).

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TABLE 1. COSTS PER ACRE TO PRODUCE PARSLEY

Operation	Time (Hrs/A)	Labor Cost	Fuel	Lube &Repairs	Material Cost	Custom/ Rent	Total Cost	Your Cost
			Cash and Labor Costs per Acre					
Pre-Plant:								
Discing (3x)	0.33	13	21	16	0	0	49	
Ripping (2x) (36")	0.60	23	38	13	0	0	74	
Plowing	0.22	8	14	5	0	0	27	
Landplane (3x)	0.52	20	33	13	0	0	66	
Levelling	0.17	7	11	4	0	0	22	
Chiseling (2x)	0.31	12	19	6	0	0	38	
Furrowing	0.10	4	4	1	0	0	9	
Listing (contracted)	0.00	0	0	0	0	125	125	
Fertilizer (pre-plant) 15-15-15	0.00	0	0	0	166	0	166	
Shape beds (40")	0.14	5	5	1	0	0	12	
Sprinkler set-up	0.42	29	3	3	0	0	35	
Pre-plant irrigation (sprinkler)	0.00	13	0	0	125	0	137	
Sprinkler removal	0.42	29	3	3	0	0	35	
TOTAL PRE-PLANT COSTS	3.23	164	150	66	290	125	796	
Planting :								
Planting (parsley seed)	0.12	5	4	1	330	0	340	
TOTAL PLANTING COSTS	0.12	5	4	1	330	0	340	
Cultural:								
Fertilizer CAN-17	0.00	0	0	0	164	0	164	
Irrigation (drip)	0.00	252	0	0	1,245	0	1,497	
Weed Control (herbicide)	0.07	3	3	1	400	250	657	
Weed Control (mechanical)	0.10	4	4	1	0	0	9	
Weed Control (hand hoeing)	0.00	1,258	0	0	0	0	1,258	
Disease Control (fungicides)	0.00	0	0	0	85	250	335	
Pest Control (Aphids)	0.00	0	0	0	4	250	254	
TOTAL CULTURAL COSTS	0.17	1,516	7	2	1,899	750	4,174	
Harvest :								
Harvest	0.00	0	0	0	6,072	0	6,072	
TOTAL HARVEST COSTS	0.00	0	0	0	6,072	0	6,072	
Post-Harvest:								
Discing crop residue (2x)	0.16	6	6	6	0	0	19	
TOTAL POST-HARVEST COSTS	0.16	6	6	6	0	0	19	
Interest on Operating Capital at 5.87%							252	
TOTAL OPERATING COSTS/ACRE	4	1,691	168	76	8,591	875	11,653	

TABLE 1. CONTINUED

Operation	Time (Hrs/A)	Labor Cost	Fuel	Lube &Repairs	Material Cost	Custom/ Rent	Total Cost	Your Cost
			Cash and Labor Costs per Acre					
CASH OVERHEAD:								
Office Expense (parsley)							264	
Liability Insurance-Parsley							1	
Sanitation Fees							40	
Land Lease ($2,500/A/Yr)parsley							1,664	
Supervisor (parsley)							160	
Property Taxes							15	
Property Insurance							1	
Investment Repairs							44	
TOTAL CASH OVERHEAD COSTS/ACRE							2,189	
TOTAL CASH COSTS/ACRE							13,842	
NON-CASH OVERHEAD:	Per Producing Acre			Annual Cost Capital Recovery				
Irrigation System- Pump and Pipe	1,784			134			134	
Fuel Tanks and Pumps	48			4			4	
Shop/Field Tools	38			3			3	
Drip Tape	350			83			83	
Equipment	1,321			142			142	
TOTAL NON-CASH OVERHEAD COSTS	3,541			365			365	
TOTAL COSTS/ACRE							14,207	

TABLE 2. COSTS AND RETURNS PER ACRE TO PRODUCE PARSLEY

	Quantity/ Acre	Unit	Price or Cost/Unit	Value or Cost/Acre	Your Cost
GROSS RETURNS					
Parsley	2,200	Ctn	8.60	18,920	
TOTAL GROSS RETURNS	2,200	Ctn		18,920	
OPERATING COSTS					
Herbicide:				**400**	
Lorox	160.00	Oz	2.50	400	
Fungicide:				**85**	
Quadris Flowable Fungicide	75.00	FlOz	1.13	85	
Insecticide:				**4**	
Imidacloprid	6.50	FlOz	0.66	4	
Custom:				**875**	
Listing-Custom	1.00	Acre	125.00	125	
Spray Herbicide	5.00	Acre	50.00	250	
PCA/CCA Fee	5.00	Acre	50.00	250	
Pesticide Spray Material	5.00	Acre	50.00	250	
Harvest:				**6,072**	
Carton	2200.00	Ctn	0.43	946	
Picking and Packing	2200.00	Ctn	1.18	2,596	
Load and Haul	2200.00	Ctn	0.65	1,430	
Sell and Cool	2200.00	Ctn	0.50	1,100	
Irrigation:				**1,370**	
Water-Ventura	22.00	AcIn	29.15	641	
Irrigation booster pump fuel	88.00	Gal	4.92	433	
Irrigiation pump (electricity)	984.67	KWh	0.30	295	
Fertilizer:				**330**	
15-15-15	325.00	Lb	0.51	166	
CAN 17	60.00	Gal	2.74	164	
Seed:				**330**	
Seed (parsley)	22.00	Lb	14.99	330	
Labor				**1,691**	
Equipment Operator Labor	4.42	hrs	32.56	144	
Labor tractor load and unloading	1.00	hrs	25.16	25	
Labor (sprinkler monitoring)	0.50	hrs	25.16	13	
Irrigation Labor	10.00	hrs	25.16	252	
Non-Machine Labor	50.00	hrs	25.16	1,258	
Machinery				**244**	
Fuel-Gas	1.41	gal	4.78	7	
Fuel-Diesel	32.73	gal	4.92	161	
Lube				25	
Machinery Repair				51	
Interest on Operating Capital @ 5.87%				252	
TOTAL OPERATING COSTS/ACRE				11,653	
TOTAL OPERATING COSTS/CTN				5	
NET RETURNS ABOVE OPERATING COSTS				7,267	

TABLE 2. CONTINUED

	Quantity/ Acre	Unit	Price or Cost/Unit	Value or Cost/Acre	Your Cost
CASH OVERHEAD COSTS					
Office Expense (parsley)				264	
Liability Insurance-Parsley				1	
Sanitation Fees				40	
Land Lease ($2,500/A/Yr)parsley				1,664	
Supervisor (parsley)				160	
Property Taxes				15	
Property Insurance				1	
Investment Repairs				44	
TOTAL CASH OVERHEAD COSTS/ACRE				2,189	
TOTAL CASH OVERHEAD COSTS/CTN				1	
TOTAL CASH COSTS/ACRE				13,842	
TOTAL CASH COSTS/CTN				6	
NET RETURNS ABOVE CASH COSTS				5,078	
NON-CASH OVERHEAD COSTS (Capital Recovery)					
Irrigation System- Pump and Pipe				134	
Fuel Tanks and Pumps				4	
Shop/Field Tools				3	
Drip Tape				83	
Equipment				142	
TOTAL NON-CASH OVERHEAD COSTS/ACRE				365	
TOTAL NON-CASH OVERHEAD COSTS/CTN				0	
TOTAL COST/ACRE				14,207	
TOTAL COST/CTN				6	
NET RETURNS ABOVE TOTAL COST				4,713	

TABLE 3. MONTHLY COSTS PER ACRE TO PRODUCE PARSLEY

	FEB 25	MAR 25	APR 25	MAY 25	JUN 25	JUL 25	AUG 25	SEP 25	Total
Pre-Plant:									
Discing (3x)	49								49
Ripping (2x) (36")	74								74
Plowing	27								27
Landplane (3x)	66								66
Levelling	22								22
Chiseling (2x)	38								38
Furrowing	9								9
Listing (contracted)	125								125
Fertilizer (pre-plant) 15-15-15	166								166
Shape beds (40")	12								12
Sprinkler set-up	35								35
Pre-plant irrigation (sprinkler)	137								137
Sprinkler removal	35								35
TOTAL PRE-PLANT COSTS	796								796
Planting :									
Planting (parsley seed)	340								340
TOTAL PLANTING COSTS	340								340
Cultural:									
Fertilizer CAN-17	33		33	33		33	33		164
Irrigation (drip)	150	225	150	225	150	225	225	150	1,497
Weed Control (herbicide)	137		130	130		130	130		657
Weed Control (mechanical)	9								9
Weed Control (hand hoeing)	252		252	252		252		252	1,258
Disease Control (fungicides)	67		67	67		67	67		335
Pest Control (Aphids)	51		51	51		51		51	254
TOTAL CULTURAL COSTS	698	225	682	757	150	757	454	452	4,174
Harvest :									
Harvest		1,214		1,214	1,214		1,214	1,214	6,072
TOTAL HARVEST COSTS	0	1,214	0	1,214	1,214	0	1,214	1,214	6,072
Post-Harvest:									
Discing crop residue (2x)								19	19
TOTAL POST-HARVEST COSTS	0	0	0	0	0	0	0	19	19
Interest on Operating Capital @5.87%	9	16	19	29	36	39	48	56	252
TOTAL OPERATING COSTS/ACRE	1,843	1,455	701	2,000	1,400	796	1,716	1,741	11,653
CASH OVERHEAD									
Office Expense (parsley)			264						264
Liability Insurance-Parsley	1								1
Sanitation Fees			40						40
Land Lease ($2,500/A/Yr)parsley			1,664						1,664
Supervisor (parsley)	20	20	20	20	20	20	20	20	160

TABLE 3. CONTINUED

	FEB 25	MAR 25	APR 25	MAY 25	JUN 25	JUL 25	AUG 25	SEP 25	Total
Property Taxes	7		7						15
Property Insurance	1		1						1
Investment Repairs	6	6	6	6	6	6	6	6	44
TOTAL CASH OVERHEAD COSTS	34	26	2,002	26	26	26	26	26	2,189
TOTAL CASH COSTS/ACRE	1,877	1,480	2,703	2,026	1,425	822	1,742	1,767	13,842

UC COOPERATIVE EXTENSION

TABLE 4. RANGING ANALYSIS - PARSLEY

COSTS PER ACRE AND PER CTN AT VARYING YIELDS TO PRODUCE PARSLEY

	YIELD(CTN)						
	1,600.00	1,800.00	2,000.00	2,200.00	2,400.00	2,600.00	2,800.00
OPERATING COSTS/ACRE:							
Pre-Plant	796	796	796	796	796	796	796
Planting	340	340	340	340	340	340	340
Cultural	4,174	4,174	4,174	4,174	4,174	4,174	4,174
Harvest	4,416	4,968	5,520	6,072	6,624	7,176	7,728
Post-Harvest	19	19	19	19	19	19	19
Interest on Operating Capital @ 5.87%	252	252	252	252	252	252	252
TOTAL OPERATING COSTS/ACRE	9,997	10,549	11,101	11,653	12,205	12,757	13,309
TOTAL OPERATING COSTS/CTN	6.25	5.86	5.55	5.30	5.09	4.91	4.75
CASH OVERHEAD COSTS/ACRE	2,189	2,189	2,189	2,189	2,189	2,189	2,189
TOTAL CASH COSTS/ACRE	12,186	12,738	13,290	13,842	14,394	14,946	15,498
TOTAL CASH COSTS/CTN	7.62	7.08	6.65	6.29	6.00	5.75	5.54
NON-CASH OVERHEAD COSTS/ACRE	365	365	365	365	365	365	365
TOTAL COSTS/ACRE	12,551	13,103	13,655	14,207	14,759	15,311	15,863
TOTAL COSTS/CTN	7.8	7.3	6.8	6.5	6.1	5.9	5.7

Net Return Per Acre Above Operating Costs For Parsley

PRICE ($/ctn)	YIELD (ctn/acre)						
Parsley	1600.00	1800.00	2000.00	2200.00	2400.00	2600.00	2800.00
5.60	-1,037	-469	99	667	1,235	1,803	2,371
6.60	563	1,331	2,099	2,867	3,635	4,403	5,171
7.60	2,163	3,131	4,099	5,067	6,035	7,003	7,971
8.60	3,763	4,931	6,099	7,267	8,435	9,603	10,771
9.60	5,363	6,731	8,099	9,467	10,835	12,203	13,571
10.60	6,963	8,531	10,099	11,667	13,235	14,803	16,371
11.60	8,563	10,331	12,099	13,867	15,635	17,403	19,171

Net Return Per Acre Above Cash Costs For Parsley

PRICE ($/ctn)	YIELD (ctn/acre)						
Parsley	1600.00	1800.00	2000.00	2200.00	2400.00	2600.00	2800.00
5.60	-3,226	-2,658	-2,090	-1,522	-954	-386	182
6.60	-1,626	-858	-90	678	1,446	2,214	2,982
7.60	-26	942	1,910	2,878	3,846	4,814	5,782
8.60	1,574	2,742	3,910	5,078	6,246	7,414	8,582
9.60	3,174	4,542	5,910	7,278	8,646	10,014	11,382
10.60	4,774	6,342	7,910	9,478	11,046	12,614	14,182
11.60	6,374	8,142	9,910	11,678	13,446	15,214	16,982

TABLE 4. RANGING ANALYSIS CONTINUED

Net Return Per Acre Above Total Costs For Parsley

PRICE ($/ctn)	YIELD (ctn/acre)						
Parsley	1600.00	1800.00	2000.00	2200.00	2400.00	2600.00	2800.00
5.60	-3,591	-3,023	-2,455	-1,887	-1,319	-751	-183
6.60	-1,991	-1,223	-455	313	1,081	1,849	2,617
7.60	-391	577	1,545	2,513	3,481	4,449	5,417
8.60	1,209	2,377	3,545	4,713	5,881	7,049	8,217
9.60	2,809	4,177	5,545	6,913	8,281	9,649	11,017
10.60	4,409	5,977	7,545	9,113	10,681	12,249	13,817
11.60	6,009	7,777	9,545	11,313	13,081	14,849	16,617

TABLE 5. WHOLE FARM ANNUAL EQUIPMENT, INVESTMENT, AND BUSINESS OVERHEAD COSTS

ANNUAL EQUIPMENT COSTS

Yr	Description	Price	Yrs Life	Salvage Value	Capital Recovery	Cash Overhead Insur-ance	Taxes	Total
25	Disc 21' #1	109,000	10	19,276	13,155	46	641	13,842
25	200HP4WD Tractor	230,000	15	44,777	21,335	98	1,374	22,807
25	Subsoiler 12'	6,490	8	1,465	885	3	40	928
25	Plow-6 bottom	12,000	10	2,122	1,448	5	71	1,524
25	Triplane 14' #1	21,876	10	3,869	2,640	9	129	2,778
25	120HP4WD Tractor #1	93,000	12	23,251	9,543	41	581	10,165
25	Cultivator 4 Row 40" #1	8,550	10	1,512	1,032	4	50	1,086
25	Triplane 14' #2	21,876	10	3,869	2,640	9	129	2,778
25	200HP4WD Tractor #2	230,000	15	44,777	21,335	98	1,374	22,807
25	Chisel 14' #2	2,270	10	401	274	1	13	288
25	Chisel 14'	2,270	10	401	274	1	13	288
25	Subsoiler 12' #2	6,490	8	1,465	885	3	40	928
25	Bed shaper 3-row	8,900	10	1,574	1,074	4	52	1,130
25	Planter 6 Row	8,900	10	1,574	1,074	4	52	1,130
25	Sprayer 600 gal #1	350,000	10	61,894	42,241	146	2,059	44,447
25	Pickup Truck 1/2 ton #1	45,000	10	13,292	5,021	21	291	5,334
25	Pipe Trailer	7,299	6	2,244	1,149	3	48	1,200
25	Pickup Truck 1/2 ton #2	45,000	10	13,292	5,021	21	291	5,334
	TOTAL	1,208,921	-	241,057	131,029	515	7,250	138,794
	100% of New Cost*	1,208,921	-	241,057	131,029	515	7,250	138,794

*Used to reflect a mix of new and used equipment

ANNUAL INVESTMENT COSTS

Description	Price	Yrs Life	Salvage Value	Capital Recovery	Cash Overhead Insur-ance	Taxes	Repairs	Total
INVESTMENT								
Irrigation System- Pump and Pipe	1,427,530	25	99,927	107,146	542	7,637	28,551	143,876
Fuel Tanks and Pumps	38,100	20	2,667	3,180	14	204	762	4,160
Shop/Field Tools	30,000	25	2,100	2,252	11	161	600	3,024
Drip Tape	280,000	5	0	66,020	99	1,400	5,600	73,119
TOTAL INVESTMENT	1,775,630	-	104,694	178,597	668	9,402	35,513	224,179

ANNUAL BUSINESS OVERHEAD COSTS

Units/ Description	Farm	Unit	Price/ Unit	Total Cost
Office Expense (parsley)	800	Acre	264	211,200
Liability Insurance-Parsley	800	Acre	0.9105	728
Sanitation Fees	800	Acre	40	32,000
Land Lease ($2,500/A/Yr)parsley	800	Acre	1664	1,331,200
Supervisor (parsley)	800	Acre	160	128,000

TABLE 6. HOURLY EQUIPMENT COSTS

Yr	Description	Parsley Hours Used	Total Hours Used	Cash Overhead			Operating			Total Costs/Hr.
				Capital Recovery	Insur-ance	Taxes	Lube& Repairs	Fuel	Total Oper.	
25	Disc 21' #1	157	200	65.77	0.23	3.21	29.58	0.00	29.58	98.79
25	200HP4WD Tractor	468	1000	21.34	0.10	1.37	17.49	57.11	74.60	97.41
25	Subsoiler 12'	96	250	3.54	0.01	0.16	2.47	0.00	2.47	6.19
25	Plow-6 bottom	69	200	7.24	0.03	0.35	5.58	0.00	5.58	13.20
25	Triplane 14' #1	111	300	8.80	0.03	0.43	5.57	0.00	5.57	14.83
25	120HP4WD Tractor #1	216	1000	9.54	0.04	0.58	8.12	34.26	42.38	52.55
25	Cultivator 4 Row 40" #1	63	200	5.16	0.02	0.25	2.90	0.00	2.90	8.33
25	Triplane 14' #2	111	300	8.80	0.03	0.43	5.57	0.00	5.57	14.83
25	200HP4WD Tractor #2	287	1000	21.34	0.10	1.37	17.49	57.11	74.60	97.41
25	Chisel 14' #2	49	200	1.37	0.00	0.07	0.80	0.00	0.80	2.24
25	Chisel 14'	49	200	1.37	0.00	0.07	0.80	0.00	0.80	2.24
25	Subsoiler 12' #2	96	250	3.54	0.01	0.16	2.47	0.00	2.47	6.19
25	Bed shaper 3-row	44	200	5.37	0.02	0.26	1.69	0.00	1.69	7.34
25	Planter 6 Row	37	150	7.16	0.02	0.35	4.02	0.00	4.02	11.55
25	Sprayer 600 gal #1	26	200	211.21	0.73	10.30	14.71	39.36	54.07	276.31
25	Pickup Truck 1/2 ton #1	136	200	25.11	0.10	1.46	6.63	7.97	14.60	41.26
25	Pipe Trailer	271	500	2.30	0.01	0.10	0.22	0.00	0.22	2.62
25	Pickup Truck 1/2 ton #2	136	200	25.11	0.10	1.46	6.63	7.97	14.60	41.26

TABLE 7. OPERATIONS WITH EQUIPMENT & MATERIALS

Operation	Operation Month	Tractor	Implement	Labor Type/ Material	Rate/ acre	Unit
Discing (3x)	Feb	200HP4WD Tractor	Disc 21' #1	Equipment Operator Labor	0.39	hour
Ripping (2x) (36")	Feb	200HP4WD Tractor #2	Subsoiler 12' #2	Equipment Operator Labor	0.36	hour
	Feb	200HP4WD Tractor #2	Subsoiler 12'	Equipment Operator Labor	0.36	hour
Plowing	Feb	200HP4WD Tractor #2	Plow-6 bottom	Equipment Operator Labor	0.26	hour
Landplane (3x)	Feb	200HP4WD Tractor	Triplane 14' #2	Equipment Operator Labor	0.21	hour
	Feb	200HP4WD Tractor	Triplane 14' #1	Equipment Operator Labor	0.42	hour
Levelling	Feb	200HP4WD Tractor	Triplane 14' #2	Equipment Operator Labor	0.21	hour
Chiseling (2x)	Feb	200HP4WD Tractor	Chisel 14' #2	Equipment Operator Labor	0.18	hour
	Feb	200HP4WD Tractor	Chisel 14'	Equipment Operator Labor	0.18	hour
Furrowing	Feb	120HP4WD Tractor #1	Cultivator 4 Row 40" #1	Equipment Operator Labor	0.12	hour
Listing (contracted)	Feb			Listing-Custom	1.00	Acre
Fertilizer (pre-plan	Feb			15-15-15	325.00	Lb
Shape beds (40")	Feb	120HP4WD Tractor #1	Bed shaper 3-row	Equipment Operator Labor	0.17	hour
Sprinkler set-up	Feb		Pickup Truck 1/2 ton #1 Pipe Trailer	Labor tractor load and unloading	0.50	hour
Pre-plant irrigation	Feb			Labor (sprinkler monitoring)	0.50	hour
				Water-Ventura	2.00	AcIn
				Irrigation booster pump fuel	8.00	Gal
				Irrigiation pump (electricity)	89.67	KWh
Sprinkler removal	Feb		Pickup Truck 1/2 ton #2 Pipe Trailer	Labor tractor load and unloading	0.50	hour
Planting (parsley se	Feb	120HP4WD Tractor #1	Planter 6 Row	Equipment Operator Labor	0.14	hour
				Seed (parsley)	22.00	Lb
Fertilizer CAN-17	Feb			CAN 17	12.00	Gal
	Apr			CAN 17	12.00	Gal
	May			CAN 17	12.00	Gal
	July			CAN 17	12.00	Gal
	Aug			CAN 17	12.00	Gal
Irrigation (drip)	Feb			Irrigation Labor	1.00	hour
				Water-Ventura	2.00	AcIn
				Irrigation booster pump fuel	8.00	Gal
				Irrigiation pump (electricity)	89.50	KWh
	Mar			Irrigation Labor	1.50	hours
				Water-Ventura	3.00	AcIn
				Irrigation booster pump fuel	12.00	Gal
				Irrigiation pump (electricity)	134.25	KWh
	Apr			Irrigation Labor	1.00	hour
				Water-Ventura	2.00	AcIn
				Irrigation booster pump fuel	8.00	Gal
				Irrigiation pump (electricity)	89.50	KWh
	May			Irrigation Labor	1.50	hours
				Water-Ventura	3.00	AcIn
				Irrigation booster pump fuel	12.00	Gal
				Irrigiation pump (electricity)	134.25	KWh
	June			Irrigation Labor	1.00	hour
				Water-Ventura	2.00	AcIn
				Irrigation booster pump fuel	8.00	Gal
				Irrigiation pump (electricity)	89.50	KWh
	July			Irrigation Labor	1.50	hours
				Water-Ventura	3.00	AcIn
				Irrigation booster pump fuel	12.00	Gal
				Irrigiation pump (electricity)	134.25	KWh
	Aug			Irrigation Labor	1.50	hours
				Water-Ventura	3.00	AcIn
				Irrigation booster pump fuel	12.00	Gal
				Irrigiation pump (electricity)	134.25	KWh
	Sept			Irrigation Labor	1.00	hour
				Water-Ventura	2.00	AcIn
				Irrigation booster pump fuel	8.00	Gal
				Irrigiation pump (electricity)	89.50	KWh
Weed Control (herbic	Feb		Sprayer 600 gal #1	Equipment Operator Labor	0.09	hour
				Lorox	32.00	Oz
				Spray Herbicide	1.00	Acre
	Apr			Lorox	32.00	Oz
				Spray Herbicide	1.00	Acre
	May			Lorox	32.00	Oz
				Spray Herbicide	1.00	Acre
	July			Lorox	32.00	Oz
				Spray Herbicide	1.00	Acre
	Aug			Lorox	32.00	Oz

Operation	Operation Month	Tractor	Implement	Labor Type/ Material	Rate/ acre	Unit
				Spray Herbicide	1.00	Acre
Weed Control (mechan	Feb	120HP4WD Tractor #1	Cultivator 4 Row 40" #1	Equipment Operator Labor	0.12	hour
Weed Control (hand h	Feb			Non-Machine Labor	10.00	hours
	Apr			Non-Machine Labor	10.00	hours
	May			Non-Machine Labor	10.00	hours
	July			Non-Machine Labor	10.00	hours
	Sept			Non-Machine Labor	10.00	hours
Disease Control (fun	Feb			Quadris Flowable Fungicide	15.00	FlOz
				PCA/CCA Fee	1.00	Acre
	Apr			Quadris Flowable Fungicide	15.00	FlOz
				PCA/CCA Fee	1.00	Acre
	May			Quadris Flowable Fungicide	15.00	FlOz
				PCA/CCA Fee	1.00	Acre
	July			Quadris Flowable Fungicide	15.00	FlOz
				PCA/CCA Fee	1.00	Acre
	Aug			Quadris Flowable Fungicide	15.00	FlOz
				PCA/CCA Fee	1.00	Acre
Pest Control (Aphids	Feb			Imidacloprid	1.30	FlOz
				Pesticide Spray Material	1.00	Acre
	Apr			Imidacloprid	1.30	FlOz
				Pesticide Spray Material	1.00	Acre
	May			Imidacloprid	1.30	FlOz
				Pesticide Spray Material	1.00	Acre
	July			Imidacloprid	1.30	FlOz
				Pesticide Spray Material	1.00	Acre
	Sept			Imidacloprid	1.30	FlOz
				Pesticide Spray Material	1.00	Acre
Harvest	Mar			Carton	440.00	Ctn
				Picking and Packing	440.00	Ctn
				Load and Haul	440.00	Ctn
				Sell and Cool	440.00	Ctn
	May			Carton	440.00	Ctn
				Picking and Packing	440.00	Ctn
				Load and Haul	440.00	Ctn
				Sell and Cool	440.00	Ctn
	June			Carton	440.00	Ctn
				Picking and Packing	440.00	Ctn
				Load and Haul	440.00	Ctn
				Sell and Cool	440.00	Ctn
	Aug			Carton	440.00	Ctn
				Picking and Packing	440.00	Ctn
				Load and Haul	440.00	Ctn
				Sell and Cool	440.00	Ctn
	Sept			Carton	440.00	Ctn
				Picking and Packing	440.00	Ctn
				Load and Haul	440.00	Ctn
				Sell and Cool	440.00	Ctn
Discing crop residue	Sept	120HP4WD Tractor #1	Disc 21' #1	Equipment Operator Labor	0.20	hour