
UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION

2008

SAMPLE COSTS TO PRODUCE
GRAIN CORN

Field Corn



SAN JOAQUIN VALLEY - South

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INTRODUCTION

Sample costs to produce grain corn (field corn for grain) in the southern San Joaquin Valley are shown in this study. The study is intended as a guide only, and can be used to make production decisions, determine potential returns, prepare budgets and evaluate production loans. Practices described are based on the production practices considered typical for this crop and region, but will not apply to every farm situation. Sample costs for labor, materials, equipment and custom services are based on current figures. “Your Costs” columns in Tables 1 and 2 are provided for entering your farm costs.

The hypothetical farm operations, production practices, overhead, and calculations are described under the assumptions. For additional information or an explanation of the calculations used in the study call the Department of Agricultural and Resource Economics, University of California, Davis, California, (530) 752-3589 or the local UC Cooperative Extension office.

Sample Cost of Production Studies for many commodities are available and can be requested through the Department of Agricultural and Resource Economics, UC Davis, (530) 752-1517. Current studies can be downloaded from the department website <http://coststudies.ucdavis.edu> or obtained from the local county UC Cooperative Extension offices. Some archived studies are also available on the website.

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ASSUMPTIONS

The following assumptions refer to Tables 1 to 7 and pertain to sample costs to produce grain corn in the southern San Joaquin Valley. Practices described represent production practices and materials considered typical of a well-managed farm in the region. The costs, materials, and practices shown in this study will not apply to all situations. Production cultural practices vary by grower and the differences can be significant. The study is intended as a guide only. **The use of trade names and cultural practices 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 or cultural practices.**

Farm. The hypothetical farm consists of 1,200 non-contiguous acres of field and row crops; 300 acres are rented of which 290 are planted to grain corn and the remaining 10 acres are crop ends and roads, 900 acres are owned and 885 acres are planted to other crops such as alfalfa, cotton, wheat, processing tomatoes and dry beans. The remaining 15 acres consist of field roads, buildings, equipment yards, irrigation system and homestead. The farm is managed by the owner/lessee.

Production Operating Costs

Land Preparation. The ground is ripped in the fall or winter to a depth of 18 to 24 inches to fracture the soil, which improves root penetration and water infiltration. In the spring, the fields are disced twice, followed by two passes with a triplane, and the beds listed and shaped. Depending upon the grower, many of these operations may be completed in the fall.

Planting. The Roundup Ready seed is planted in March at 33,000 seeds per acre on 30-inch beds. Corn is usually planted from March to April in rows 30 or 38 inches apart, on the flat or on beds. The corn is planted by the grower and is considered full season. Earlier maturing corn varieties may have different fertilizer and water requirements. .

Fertilization. A starter fertilizer 10-34-0 at 200 pounds per acre is applied beneath the seed at planting. In May, a custom operator sidedresses 150 pounds of nitrogen (N) per acre as UAN-32. Three applications of N as UAN-32 each at 30 pounds per acre are applied with two irrigations in June and one in July. Labor cost for applying the fertilizer is included in the corresponding irrigation. Commercial fertilizers may be reduced with the use of dairy pond water.

Irrigation. Irrigation includes the water cost and labor expense. The grower uses both well and surface water at an average cost of \$4.58 per acre inch. A preirrigation of 8-acre inches is applied in March. The amount of water applied preplant will vary depending on soil type and moisture remaining from winter rains. From May to August, seven irrigations totaling 36 acre-inches (3.0 acre-feet) of water are applied in the furrows. Three of the irrigations, two in June and one in July include nitrogen fertilizer injected into the water. The actual water requirement will vary each year based on soil, climatic, and plant physiological factors.

Pest Management. The pesticides, rates, and application practices mentioned in this cost study are listed on the UC IPM website at www.ipm.ucdavis.edu. **Pesticides mentioned in this study are not recommendations, but those commonly used in the region.** For information and pesticide use permits, contact the local county Agricultural Commissioner's office. For information on other pesticides available, pest identification, monitoring, and management, visit the UC IPM website or contact your UC farm advisor. **Pest control costs can vary considerably each year depending upon local conditions and pest populations in any given year.** Adjuvants or surfactants may be recommended for use with many pesticides for effective control, but are not

included in this study. Pesticide costs vary by location and grower volume. Pesticide costs in this study are taken from a single dealer and shown as full retail.

Pest Control Adviser (PCA). Written recommendations are required for many pesticides and are available from licensed pest control advisers. In addition the PCA or an independent consultant will monitor the field for agronomic problems including irrigation and nutrition. Growers may hire private PCA's or receive the service as part of a service agreement with an agricultural chemical and fertilizer company.

Weeds. Weed pressure is light to moderate. Roundup WeatherMax is applied post emergence in May to control grasses and broadleaf weeds. Banvel is added to the Roundup for annual morning glory control. The field is also mechanically cultivated once in April. It is assumed that the field is furrowed and cultivated simultaneously.

Insects. Several insect and spider mite pests attack corn. Spider mites are the only insects assumed to reach economic threshold levels requiring treatment. Oberon is applied in May.

Harvest. A custom operator harvests and hauls the corn.

Yields. The crop is assumed to yield 5.00 tons of grain at 15.5% moisture. Annual yields range from 3 to 6 tons per acre in this region.

Returns. Corn is valued at \$150 per ton or \$7.50 per hundredweight (cwt), an amount based on 2007 markets. Table 4 shows various returns over a range of yields. Grain corn is included in the Federal farm program. Currently the corn price is high enough so that Loan Deficiency Payments (LDP) are not applicable, but other farm programs – Direct Payments, Counter-Cyclical Payments, - not based on current production are available to the farmer. Call your local Farm Service Agency for further information or check their website at <http://www.fsa.usda.gov/>.

Pickup/ATV. The pickup travels 7.18 miles per acre for corn production use or a total of 2,137 miles. Costs are estimated and not based on any specific data.

Labor, Interest and Equipment

Labor. Labor rates of \$13.94 per hour for machine operators and \$10.88 for general labor includes payroll overhead of 36%. The basic hourly wages are \$10.25 for machine operators and \$8.00 for general labor. The overhead includes the employers' share of federal and California state payroll taxes, workers' compensation insurance for field crops (code 0171), and a percentage for other possible benefits. Workers' compensation costs will vary among growers, but for this study the cost is based upon the average industry final rate as of January 1, 2008 (California Department of Insurance, unreferenced). Labor for operations involving machinery are 20% higher than the operation time given in Table 1 to account for the extra labor involved in equipment set up, moving, maintenance, work breaks, and field repair.

Interest on Operating Capital. Interest on operating capital is based on cash operating costs and is calculated monthly until harvest at a nominal rate of 6.75% per year. A nominal interest rate is the typical market cost of borrowed funds. The interest cost of post harvest operations is discounted back to the last harvest month using a negative interest charge. The rate will vary depending upon various factors, but the rate in this study is considered a typical lending rate by a farm lending agency as of April 2008.

Equipment Operating Costs. Repair costs are based on purchase price, annual hours of use, total hours of life, and repair coefficients formulated by the American Society of Agricultural Engineers (ASAE). Fuel and lubrication costs are also determined by ASAE equations based on maximum power take off (PTO) horsepower and fuel type. Prices for **on-farm delivery** of diesel and gasoline are \$3.54 (excludes excise taxes) and \$3.57 per gallon, respectively. The fuel prices are the average costs from November 2007 through April 2008 derived from American Automobile Association (AAA) and Energy Information Administration monthly data. The cost includes a 2.25% sales tax for diesel fuel, and federal and excise taxes plus an 8% sales tax on gasoline. The federal and state excise tax on gasoline used on the farm can be refunded for on-farm use when filing your income tax. The fuel, lube, and repair cost per acre for each operation in the “Cost Per Acre to Produce” table is determined by multiplying the total hourly operating cost in the “Hourly Equipment Costs” table for each piece of equipment used from the Operation Time (Hrs/A) column by the hours per acre. Tractor time is 10% higher than implement time for a given operation to account for setup, travel and down time.

Risk. Production risks 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 field corn production.

Crop Insurance. Crop insurance for grain corn is available and is based on the grower’s average yields. The farmer can select the level of coverage from 50 to 75% of average yield and costs will vary depending upon coverage level. Contact the local crop insurance agent for your costs.

Cash Overhead

Cash overhead consists of various cash expenses paid out during the year that are assigned to the whole farm, not to a particular operation.

Property Taxes. Counties charge a base property tax rate of 1% on the assessed value of the property. In some counties special assessment districts exist and charge additional taxes on property including equipment, buildings, and improvements. For this study, county taxes are calculated as 1% of the average value of the property. Average value equals new cost plus salvage value divided by 2 on a per acre basis.

Insurance. Insurance for farm investments varies depending on the assets included and the amount of coverage. Property insurance provides coverage for property loss and is charged at 0.74% of the average value of the assets over their useful life. Liability insurance covers accidents on the farm and costs \$1,350 for the entire farm or \$1.135 per acre or \$1.15 per producing acre (1,175 acres).

Land Rent. Land rent for corn in this study is \$175 per acre or \$181 per producing acre (290 acres) and includes the use of the irrigation system and developed wells. The renter pays the district water and pumping costs. Land rents vary depending upon crop, location, and water source.

Office. Costs are estimated at \$40 per acre for the ranch and are not based on any specific information, except that there is a cost involved for bookkeeping, payroll, tax preparation, and telephone.

Investment Repairs. Annual repairs on investments or capital recovery items that require maintenance are calculated as 2% of the purchase price. Repairs are not calculated for land and establishment costs.

Non-Cash Overhead

Non-cash overhead is calculated as the capital recovery cost for equipment and other farm investments.

Capital Recovery Costs. Capital recovery cost is the annual depreciation and interest costs for a capital investment and is the amount of money required each year to recover the difference between the purchase price and salvage value (unrecovered capital). The capital recovery costs are equivalent to the annual payment on a loan for the investment with the down payment equal to the discounted salvage value. This is a more complex method of calculating ownership costs than straight-line depreciation and opportunity costs, but more accurately represents the annual costs of ownership because it takes the time value of money into account (Boehlje and Eidman). The formula for the calculation of the annual capital recovery costs is $((\text{Purchase Price} - \text{Salvage Value}) \times \text{Capital Recovery Factor}) + (\text{Salvage Value} \times \text{Interest Rate})$.

Salvage Value. Salvage value is the estimated value of an investment at the end of its useful life. For farm machinery the value is a percentage of the new cost of the investment (Boehlje and Eidman). The value is calculated from equations developed by ASAE based on equipment type and years of life. The life in years is estimated by dividing the wear out life, as given by ASAE, by the annual hours of use in the operation. For other investments including irrigation systems, buildings, and miscellaneous equipment, the value at the end of its useful life is zero. The salvage value for land is the purchase price because land does not depreciate.

Capital Recovery Factor. Capital recovery factor is the amortization factor or annual payment whose present value at compound interest is 1. The amortization factor is a table value that corresponds to the interest rate and equipment life.

Interest Rate. The interest rate of 4.25% is used to calculate capital recovery. The rate will vary depending upon size of loan and other lending agency conditions, but is a suggested rate by a farm lending agency in April 2008.

Tools. Includes shop equipment/tools and other tools used on the farm and does not recognize any specific inventory.

Irrigation System. The irrigation system is included in the rental price.

Land. Land values for row crop land in the region range from \$2,500 per acre to \$20,000 per acre. Prices are affected by location, soil type, and water availability. In this study the grain corn is grown on rented land (see Land Rent).

Equipment. Farm equipment is purchased new or used, but the study shows the current purchase price for new equipment. The new purchase price is adjusted to 60% to indicate a mix of new and used equipment. Annual ownership costs for equipment and other investments are shown in the Whole Farm Annual Equipment, Investment, and Business Overhead Costs table. Equipment costs are composed of three parts: non-cash overhead, cash overhead, and operating costs. Both of the overhead factors have been discussed in previous sections. The operating costs consist of repairs, fuel, and lubrication and are discussed under operating costs.

Table Values. Due to rounding, the totals may be slightly different from the sum of the components.

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For information concerning the above or other University of California publications, contact UC DANR Communications Services at 1-800-994-8849, online at <http://danrcs.ucdavis.edu/> or your local county UC Cooperative Extension office.

UC COOPERATIVE EXTENSION
Table 1. COSTS PER ACRE to PRODUCE GRAIN CORN
 SAN JOAQUIN VALLEY 2008

Operation	Operation Time (Hrs/A)	Cash and Labor Cost per acre					Total Cost	Your Cost
		Labor Cost	Fuel, Lube & Repairs	Material Cost	Custom/ Rent			
Cultural:								
Land Prep: Subsoil/Rip 2X	0.80	13	54	0	0	67		
Land Prep: Disc Stubble 2X	0.28	5	21	0	0	25		
Land Prep: Landplane 2X	0.30	5	13	0	0	18		
Land Prep: List Beds	0.15	2	6	0	0	8		
Land Prep: Shape Beds	0.15	2	6	0	0	8		
Irrigate: Make Borders	0.08	1	3	0	0	5		
Irrigate: Pre-irrigate	0.20	2	0	37	0	39		
Irrigate: Knock Down Border	0.08	1	3	0	0	4		
Plant/Fertilize: (10-34-0)	0.21	4	16	169	0	189		
Weed: Cultivate	0.25	4	7	0	0	11		
Weed: Postemergence (Roundup, Banvel)	0.13	2	5	35	0	42		
Fertilize: Custom (UN32)	0.00	0	0	135	10	145		
Insect: Mites (Oberon)	0.13	2	5	35	0	42		
Irrigate: (water & labor)	1.75	19	0	165	0	184		
Fertilize: Water Run (UN32)	0.00	0	0	81	0	81		
Pickup Truck Use	0.24	4	3	0	0	7		
TOTAL CULTURAL COSTS	4.75	68	138	653	10	869		
Harvest:								
Harvest: Combine (custom)	0.00	0	0	0	70	70		
Haul	0.00	0	0	0	35	35		
TOTAL HARVEST COSTS	0.00	0	0	0	105	105		
Interest on operating capital @ 6.75%						27		
TOTAL OPERATING COSTS/ACRE		68	138	653	115	1,002		
CASH OVERHEAD:								
Office Expense						40		
Liability Insurance						1		
Land Rent						181		
Property Taxes						2		
Property Insurance						2		
Investment Repairs						2		
TOTAL CASH OVERHEAD COSTS						228		
TOTAL CASH COSTS/ACRE						1,230		
NON-CASH OVERHEAD:								
		Per Producing Acre		Annual Cost Capital Recovery				
Fuel Tanks		6		0		0		
Shop Building		68		4		4		
Shop Tools		13		1		1		
Equipment		299		31		31		
TOTAL NON-CASH OVERHEAD COSTS		385		37		37		
TOTAL COSTS/ACRE						1,266		

UC COOPERATIVE EXTENSION
Table 2. COSTS AND RETURNS PER ACRE to PRODUCE GRAIN CORN
 SAN JOAQUIN VALLEY 2008

	Quantity/ Acre	Unit	Price or Cost/Unit	Value or Cost/Acre	Your Cost
GROSS RETURNS					
Field Corn for Grain	5.00	ton	150.00	750	
OPERATING COSTS					
Irrigation:					
Water-Preirrigation	8.00	acin	4.58	37	
Water –Season	36.00	acin	4.58	165	
Seed:					
Corn Seed (Roundup Ready)	33.00	thou	1.80	59	
Fertilizer:					
10-34-0	200.00	lb	0.55	110	
UN-32	240.00	lb N	0.90	216	
Herbicide:					
Roundup WeatherMax	28.00	floz	0.83	23	
Banvel	0.50	pint	15.25	8	
Custom:					
Ground Application	1.00	acre	10.00	10	
Harvest for Grain	5.00	ton	14.00	70	
Haul Local	100.00	cwt	0.35	35	
Insecticide:					
Oberon 2SC	8.00	floz	4.40	35	
Labor (machine)	3.36	hrs	13.94	47	
Labor (non-machine)	1.95	hrs	10.88	21	
Fuel - Gas	0.60	gal	3.57	2	
Fuel - Diesel	27.91	gal	3.54	99	
Lube				15	
Machinery repair				22	
Interest on operating @ 6.75%				27	
TOTAL OPERATING COSTS/ACRE				1,002	
NET RETURNS ABOVE OPERATING COSTS				-252	
CASH OVERHEAD COSTS:					
Office Expense				40	
Liability Insurance				1	
Land Rent				181	
Property Taxes				2	
Property Insurance				2	
Investment Repairs				2	
TOTAL CASH OVERHEAD COSTS/ACRE				228	
TOTAL CASH COSTS/ACRE				1,229	
NON-CASH OVERHEAD COSTS (Capital Recovery)					
Fuel Tanks				0	
Shop Building				4	
Shop Tools				1	
Equipment				31	
TOTAL NON-CASH OVERHEAD COSTS/ACRE				37	
TOTAL COSTS/ACRE				1,266	
NET RETURNS ABOVE TOTAL COSTS				-516	

UC COOPERATIVE EXTENSION
Table 3. MONTHLY CASH COSTS PER ACRE to PRODUCE GRAIN CORN
 SAN JOAQUIN VALLEY 2008

Beginning JAN 08	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Ending DEC 08	08	08	08	08	08	08	08	08	08	08	08	08	
Land Prep: Chisel 2X	67												67
Land Prep: Disc Stubble 2X				25									25
Land Prep: Landplane 2X				18									18
Land Prep: List Beds				8									8
Land Prep: Shape Beds				8									8
Irrigate: Make Borders				2	2								4
Irrigate: Pre-irrigate				39									39
Irrigate: Knock Down Borders				2					2				4
Plant/Fertilize: (10-34-0)				189									189
Weed: Cultivate					11								11
Weed: Postemergence (Roundup, Banvel)						36							36
Fertilize: Custom (UN32)						145							145
Insects: Mites (Oberon)						42							42
Irrigate: (water & labor)					21	60	60	42					184
Fertilize: Water Run (UN32)						54	27						81
Pickup Truck Use	1	1	1	1	1	1	1	1	1	1	1	1	7
TOTAL CULTURAL COSTS	68	1	292	11	247	115	88	45	1	1	1	1	869
Harvest:													
Harvest: Combine (custom)									70				70
Haul									35				35
TOTAL HARVEST COSTS									105				105
Interest on operating capital @ 6.75%	0	0	2	2	3	4	5	5	5	0	0	0	27
TOTAL OPERATING COSTS/ACRE	68	1	294	13	251	119	93	50	111	1	1	1	1,002
OVERHEAD:													
Office Expense	4	4	4	4	4	4	4	4	4				40
Liability Insurance				1									1
Land Rent									181				181
Property Taxes			1				1						2
Property Insurance			2										2
Investment Repairs	0	0	0	0	0	0	0	0	0	0	0	0	2
TOTAL CASH OVERHEAD COSTS	5	7	6	5	5	5	6	5	186	0	0	0	228
TOTAL CASH COSTS/ACRE	73	8	300	18	255	124	98	54	297	1	1	1	1,229

UC COOPERATIVE EXTENSION
Table 4 RANGING ANALYSIS
 SAN JOAQUIN VALLEY 2008

COSTS PER ACRE AT VARYING YIELD TO PRODUCE GRAIN CORN

	YIELD (ton/acre)						
	3.50	4.00	4.50	5.00	5.50	6.00	6.50
OPERATING COSTS:							
Cultural Cost	869	869	869	869	869	869	869
Harvest Cost (combine & haul)	73	84	94	105	116	126	136
Interest on operating capital @ 6.75%	27	27	28	28	28	28	28
TOTAL OPERATING COSTS/acre	969	980	991	1,002	1,013	1,023	1,033
Total Operating Cost/ton	277	245	220	200	184	171	159
CASH OVERHEAD COSTS	228	228	228	228	228	228	228
TOTAL CASH COSTS/acre	1,197	1,208	1,219	1,230	1,241	1,251	1,261
Total Cash Costs/ton	342	302	271	246	226	209	194
NON-CASH OVERHEAD COSTS	37	37	37	37	37	37	37
TOTAL COSTS/acre	1,234	1,245	1,256	1,267	1,278	1,288	1,298
Total Costs/ton	353	311	279	253	232	215	200

NET RETURNS PER ACRE ABOVE OPERATING COSTS

PRICE \$/ton	YIELD (ton/acre)						
	3.50	4.00	4.50	5.00	5.50	6.00	6.50
110.00	-584	-540	-496	-452	-408	-363	-318
130.00	-514	-460	-406	-352	-298	-243	-188
150.00	-444	-380	-316	-252	-188	-123	-58
170.00	-374	-300	-226	-152	-78	-3	72
190.00	-304	-220	-136	-52	32	117	202
210.00	-234	-140	-46	48	142	237	332
230.00	-164	-60	44	148	252	357	462
250.00	-94	20	134	248	362	477	592

NET RETURNS PER ACRE ABOVE CASH COST

PRICE \$/ton	YIELD (ton/acre)						
	3.50	4.00	4.50	5.00	5.50	6.00	6.50
110.00	-812	-768	-724	-680	-636	-591	-546
130.00	-742	-688	-634	-580	-526	-471	-416
150.00	-672	-608	-544	-480	-416	-351	-286
170.00	-602	-528	-454	-380	-306	-231	-156
190.00	-532	-448	-364	-280	-196	-111	-26
210.00	-462	-368	-274	-180	-86	9	104
230.00	-392	-288	-184	-80	24	129	234
250.00	-322	-208	-94	20	134	249	364

NET RETURNS PER ACRE ABOVE TOTAL COST

PRICE \$/ton	YIELD (ton/acre)						
	3.50	4.00	4.50	5.00	5.50	6.00	6.50
110.00	-849	-805	-761	-717	-673	-628	-583
130.00	-779	-725	-671	-617	-563	-508	-453
150.00	-709	-645	-581	-517	-453	-388	-323
170.00	-639	-565	-491	-417	-343	-268	-193
190.00	-569	-485	-401	-317	-233	-148	-63
210.00	-499	-405	-311	-217	-123	-28	67
230.00	-429	-325	-221	-117	-13	92	197
250.00	-359	-245	-131	-17	97	212	327

UC COOPERATIVE EXTENSION
**Table 5. WHOLE FARM ANNUAL EQUIPMENT, INVESTMENT,
and BUSINESS OVERHEAD COSTS**
SAN JOAQUIN VALLEY 2008

ANNUAL EQUIPMENT COSTS

Yr	Description	Price	Yrs Life	Salvage Value	Capital Recovery	Cash Overhead		Total
						Insur- ance	Taxes	
08	125HP 2WD Tractor	108,450	10	32,034	10,900	520	702	12,123
08	230HP Trac Tractor	206,704	10	61,057	20,776	991	1,339	23,106
08	90HP 2WD Tractor	72,759	10	21,492	7,313	349	471	8,133
08	Bed Shaper-8 Row 20'	1,500	12	208	149	6	9	163
08	Cult-Rolling-8Row 20'	11,380	10	2,012	1,255	50	67	1,371
08	Disc - Border	2,150	20	112	158	8	11	178
08	Disc - Stubble 18'	42,000	10	7,427	4,631	183	247	5,061
08	Lister-8 Row 20'	5,500	12	762	545	23	31	599
08	Pickup 1/2 Ton	28,000	5	12,549	4,028	150	203	4,381
08	Planter-Precision 20'	28,000	10	4,952	3,088	122	165	3,374
08	Rear Blade - 10'	3,600	18	240	281	14	19	314
08	Saddle Tank 300 Gal	3,218	10	309	279	13	18	310
08	Spray Boom - 20'	1,850	10	327	204	8	11	223
08	Subsoiler - V Ripper 10'	6,723	5	2,190	1,118	33	45	1,196
08	Triplane 16'	22,500	15	2,160	1,953	91	123	2,168
TOTAL		544,334		147,831	56,679	2,561	3,461	62,701
60% of New Cost *		326,600	0	88,699	34,008	1,537	2,077	37,621

*Used to reflect a mix of new and used equipment

ANNUAL INVESTMENT COSTS

Description	Price	Yrs Life	Salvage Value	Capital Recovery	Cash Overhead			Total
					Insur- ance	Taxes	Repairs	
Fuel Tanks-Above Ground	6,514	20	250	482	25	34	130	671
Shop Building, 2400 sqft	80,000	20		4,768	296	400	1,600	7,064
Shop Tools	15,000	20	600	1,109	58	78	300	1,544
TOTAL INVESTMENT	101,514		850	6,358	379	512	2,030	9,279

ANNUAL BUSINESS OVERHEAD COSTS

Description	Units/ Farm	Unit	Price/ Unit	Total Cost
Land Rent	300.00	acre	175.00	52,500
Liability Insurance	1,175.00	acre	1.15	1,351
Office Expense	1,175.00	acre	40.00	47,000

UC COOPERATIVE EXTENSION
Table 6. HOURLY EQUIPMENT COSTS
 SAN JOAQUIN VALLEY 2008

Yr	Description	COSTS PER HOUR							Total Costs/Hr.
		Actual Hours Used	Capital Recovery	Cash Overhead			Operating		
				Insur- ance	Taxes	Repairs	Fuel & Lube	Total Oper.	
08	125HP 2WD Tractor	1,200	5.45	0.26	0.35	5.09	29.53	34.62	40.68
08	230HP Trac Tractor	1,600	7.79	0.37	0.50	5.54	54.34	59.88	68.54
08	90HP 2WD Tractor	1,200	3.66	0.17	0.24	3.41	17.99	21.40	25.47
08	Bed Shaper-8 Row 20'	165	0.54	0.02	0.03	0.32	0.00	0.32	0.91
08	Cult-Rolling-8Row 20'	200	3.76	0.15	0.20	2.46	0.00	2.46	6.57
08	Disc - Border	100	0.95	0.05	0.07	0.34	0.00	0.34	1.41
08	Disc - Stubble 18'	190	14.61	0.58	0.78	6.97	0.00	6.97	22.94
08	Lister-8 Row 20'	165	1.98	0.08	0.11	1.16	0.00	1.16	3.33
08	Pickup 1/2 Ton	285	8.47	0.32	0.43	1.83	10.26	12.09	21.31
08	Planter-Precision 20'	150	12.31	0.49	0.66	7.79	0.00	7.79	21.25
08	Rear Blade - 10'	165	1.02	0.05	0.07	0.54	0.00	0.54	1.68
08	Saddle Tank 300 Gal	150	1.12	0.05	0.07	0.86	0.00	0.86	2.10
08	Spray Boom - 20'	150	0.82	0.03	0.04	0.50	0.00	0.50	1.39
08	Subsoiler - V Ripper 10'	400	1.68	0.05	0.07	1.57	0.00	1.57	3.37
08	Triplane 16'	150	7.80	0.36	0.49	3.14	0.00	3.14	11.79

UC COOPERATIVE EXTENSION
Table 7. OPERATIONS WITH EQUIPMENT & MATERIALS
 SAN JOAQUIN VALLEY 2008

Operation	Operation Month	Equipment		Material	Rate/acre	Unit
		Tractor	Implement			
Chisel 2X	January	230HP Trac	Subsoiler 10'			
Disc 2X	March	230HP Trac	Disc Stubble 18'			
Triplane 2X	March	125HP 2WD	Triplane 16'			
List Beds	March	125HP 2WD	Lister			
Shape Beds	March	125HP 2WD	Bed Shaper 20'			
Make Irrigation Border	March	125HP 2WD	Disc Border			
	May	125HP 2WD	Disc Border			
Knock Down Borders	March	125HP 2WD	Blade 10'			
	August	125HP 2WD	Blade 10'			
Preirrigate	March			Water	8.00	acin
Irrigate	May			Water	4.00	acin
	June			Water	6.00	acin
	June			Water	6.00	acin
	July			Water	6.00	acin
	July			Water	6.00	acin
	August			Water	4.00	acin
	August			Water	4.00	acin
Plant/Fertilize	March			Corn Seed	33.00	thou
				10-34-0	200.00	lb
Weed: Postemergent	May	Ground-Custom		Roundup	28.00	floz
				Banvel	0.50	pint
Fertilize	May	Custom		UN32	150.00	lb N
	June	Water Run		UN32	30.00	lb N
	June	Water Run		UN32	30.00	lb N
	July	Water Run		UN32	30.00	lb N
Cultivate	April	90HP 2WD	Rolling Cultivator			
Pest: Mites	May	125HP 2WD	Tank & Boom 20'	Oberon	8.00	floz
Harvest	September	Custom				
Haul	September	Custom				
Pickup Use	Annual	Pickup 1/2 Ton				