

U.C. COOPERATIVE EXTENSION SAMPLE COSTS TO PRODUCE DOUBLE CROPPED BARLEY IN THE SAN JOAQUIN VALLEY

BL-SJV-90

by

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The detailed costs for double cropped barley production in the San Joaquin Valley are presented in this study. The hypothetical farm used in this report consists of 1200 acres of which 300 acres are in barley production. The remainder of the farm is planted to different field crops.

Practices described 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 1990 figures. Some costs and practices detailed in this study may not be applicable to your situation. This study is only intended as a guide and can be used in making production decisions, determining potential returns, preparing budgets and evaluating production loans. A blank *Your Costs* column is provided to enter your actual costs on **Table 1, Costs Per Acre To Produce Double Cropped Barley**. This study consists of **General Assumptions for Producing Double Cropped Barley**, and five tables.

- Table 1. **Costs Per Acre To Produce Double Cropped Barley**
- Table 2. **Monthly Cash Costs Per Acre to Produce Barley**
- Table 3. **Annual Equipment, Investment And Business Overhead Costs**
- Table 4. **Ranging Analysis**
- Table 5. **Costs And Returns/Breakeven Analysis**

For an explanation of calculations used for the study refer to the attached General Assumptions or call the Department of Agricultural Economics, Cooperative Extension, University of California, Davis, California, (916) 752-3589 or call the Farm Advisor in the county of interest.

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GENERAL ASSUMPTIONS FOR PRODUCING DOUBLE CROPPED BARLEY

San Joaquin Valley - 1990
U.C. Cooperative Extension

The following is a description of some general assumptions pertaining to sample costs of double cropped barley production in the San Joaquin Valley.

1. LAND:

This cost of production study is based on a 1200 acre field and row crop operation of which 300 acres dedicated to growing double cropped barley. Other crops grown on the same acreage in rotation with barley might include oat hay, field corn, alfalfa hay, barley, corn silage, cotton, etc.

2. RENT AGREEMENT:

The land used for barley production in this study is rented on a cash per acre basis. Under this agreement the landowner receives \$100 per acre from the tenant. Since the rented land is double cropped only half of the land rent, or \$50, is allocated to the barley crop. The landowner maintains the irrigation system on the rented land. Interest cost for land and irrigation system is incurred by the landowner. Land is not depreciated.

3. CULTURAL PRACTICES:

The cultural, pesticide and fertilizer inputs for the production of double cropped barley vary considerably from grower to grower and field to field. In this study primary tillage is done in November and December. A pre-plant fertilizer is applied by custom applicators. Seed is planted with a grain drill. Fertilizer, herbicide and Russian wheat aphid control (if needed) are custom applied by air. 18 acre-inches of water are utilized in five equal irrigations with fertilizer run through the water during one of the irrigations. Harvest is done by a custom operator. Variations as to cultural practices and inputs can be significant.

4. YIELDS & RETURNS:

The crop yield used in this study is 2.5 tons per acre. An estimated price of a \$120 per ton is used in this study.

5. HARVEST:

It was decided, in this cost study, to use contract price for custom harvesting. A grower doing his own harvesting should inventory the equipment for the required operations, and calculate labor, fuel, depreciation, repairs, interest on investment, etc. as a cost of production.

6. LABOR:

Basic hourly wages for workers are \$6.20 and \$4.75 per hour for skilled and field workers respectively. Adding 34% for SDI, FICA, insurance and other benefits gives the labor rates shown of \$8.31 per hour for machine labor and \$6.37 per hour for non-machine labor. The labor for operations using machinery are 10% higher than the machine hours to account for the extra labor involved in equipment set-up, moving, maintenance and repair.

7. OVERHEAD:

County taxes are calculated as 1% of the average of the equipment, buildings and improvements. Insurance is charged at 1% of the average value of the equipment over its useful life. Office and business costs are estimated at \$20 per acre for the ranch. These expenses include office supplies, phone, bookkeeping, accounting, legal fees, road preparation and maintenance, etc. All overhead expenses are charged at half of the per acre cost to barley crop, since it is double cropped.

8. INTEREST:

Interest on operating capital is based on cash costs and is calculated monthly, for nine months, until harvest at the rate of 12.5% per year. Interest is also charged on investment at 12% 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.

9. EQUIPMENT COSTS:

In allocating the equipment costs per acre, the following calculations were made and shown in Table 3: (a) Original Cost of equipment is the cost of the new equipment plus sales tax. (b) Depreciation is straight line with no salvage value. (c) Interest on investment is calculated as one-half of the new cost per acre (the average value of the equipment during its useful life) multiplied by an interest rate of 12%. (d) The 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.

10. FUEL & REPAIR:

The fuel and repair cost for each operation is determined by multiplying the total hourly operating cost for each piece of equipment by the number of hours per acre for that operation. On-farm delivery prices for gasoline and diesel fuel are \$0.85 per gallon and \$1.03 per gallon respectively.

Table 1

U.C. COOPERATIVE EXTENSION
 COST PER ACRE TO PRODUCE DOUBLE CROPPED BARLEY
 SAN JOAQUIN VALLEY - 1990

Labor Rate: \$ 8.31/hr. machine labor Interest Rate: 12.50%
 \$ 6.37/hr. non-machine labor Yield per Acre: 2.50 ton

Operation	Operation Time (Hrs/A)	Labor Cost	Fuel & Repairs	Cash and Labor Costs per Acre			Total Cost	Your Cost
				Material Cost	Custom/ Rent			
Cultural:								
Disc stubble	0.14	1.43	3.04	0.00	0.00	4.46		
Chisel light	0.27	2.67	5.14	0.00	0.00	7.81		
Triplane .5X	0.14	1.38	2.04	0.00	0.00	3.42		
Finish disc 2X	0.25	2.45	3.95	0.00	0.00	6.40		
Put up borders	0.02	0.20	0.15	0.00	0.00	0.35		
Pre plant fertilize	0.00	0.00	0.00	24.20	5.16	29.36		
Plant	0.26	2.56	4.30	14.00	0.00	20.86		
Fertilize, custom	0.00	0.00	0.00	13.00	5.00	18.00		
Apply herbicide, custom	0.00	0.00	0.00	2.66	5.00	7.66		
Spray insecticide, custom	0.00	0.00	0.00	4.08	5.00	9.08		
Open ditch	0.01	0.10	0.14	0.00	0.00	0.24		
Irrigate & fertilize	0.14	0.89	0.00	16.46	0.00	17.36		
Irrigate	0.42	2.68	0.00	30.65	0.00	33.32		
Close ditch	0.01	0.10	0.13	0.00	0.00	0.23		
TOTAL CULTURAL COSTS	1.65	14.46	18.88	105.05	20.16	158.55		
Harvest:								
Harvest, custom	0.00	0.00	0.00	0.00	27.50	27.50		
TOTAL HARVEST COSTS	0.00	0.00	0.00	0.00	27.50	27.50		
Interest on operating capital @ 12.50%							9.22	
TOTAL OPERATING COSTS/ACRE		14.46	18.88	105.05	47.66	195.26		
TOTAL OPERATING COSTS/TON							78.11	
CASH OVERHEAD:								
Office expense							10.00	
Land rent							50.00	
Property Taxes							0.48	
Equipment Insurance							0.24	
Investment Repairs							0.79	
TOTAL CASH OVERHEAD COSTS							61.51	
TOTAL CASH COSTS/ACRE							256.77	
TOTAL CASH COSTS/TON							102.71	

U.C. COOPERATIVE EXTENSION

Table. 1 continued

NON-CASH OVERHEAD:

Investment	Per producing Acre	Annual Cost		
		Depreciation	Interest @ 12.50%	
Buildings	62.50	2.50	3.75	6.25
Siphon tubes	1.42	0.20	0.09	0.29
Fuel tanks & equip	5.83	0.39	0.35	0.74
Shop tools	10.00	0.90	0.66	1.56
Pickup, new	15.00	1.93	0.99	2.92
Pickup, used	3.33	0.60	0.22	0.82
Equipment	81.22	6.67	5.36	12.03
TOTAL NON-CASH OVERHEAD COSTS	179.30	13.19	11.42	24.60
TOTAL COSTS/ACRE				281.37
TOTAL COSTS/TON				112.55

Table. 2

MONTHLY CASH COSTS PER ACRE TO PRODUCE BARLEY

Beginning NOV 89	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
Ending OCT 90	89	89	90	90	90	90	90	90	90	90	90	90	
Cultural:													
Disc stubble	4.5												4
Chisel light	7.8												8
Triplane .5X	3.4												3
Finish disc 2X		6.4											6
Put up borders		0.3											0
Pre plant fertilize		29.4											29
Plant		20.9											21
Fertilize, custom				18.0									18
Apply herbicide, custom				7.7									8
Spray insecticide, custom				9.1									9
Open ditch					0.2								0
Irrigate & fertilize					17.4								17
Irrigate						22.2	11.1						33
Close ditch								0.2					0
TOTAL CULTURAL COSTS	15.7	57.0		34.7	17.6	22.2	11.1	0.2					159
Harvest:													
Harvest, custom								27.5					28
TOTAL HARVEST COSTS								27.5					28
Interest on oper. capital	0.2	0.8	0.8	1.1	1.3	1.5	1.6	1.9					9
TOTAL OPERATING COSTS/ACRE	15.9	57.7	0.8	35.9	18.9	23.7	12.8	29.7					195
TOTAL OPERATING COSTS/TON	6.3	23.1	0.3	14.3	7.6	9.5	5.1	11.9					78
OVERHEAD:													
Office expense								10.0					10
Land rent								50.0					50
Property Taxes						0.2			0.2				0
Equipment Insurance			0.2										0
Investment Repairs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1					1
TOTAL CASH OVERHEAD COSTS	0.1	0.1	0.3	0.1	0.1	0.3	0.1	60.1		0.2			62
TOTAL CASH COSTS/ACRE	16.0	57.8	1.1	36.0	19.0	24.1	12.9	89.8		0.2			257
TOTAL CASH COSTS/TON	6.4	23.1	0.4	14.4	7.6	9.6	5.1	35.9		0.1			103

Table. 3

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

ANNUAL EQUIPMENT COSTS

Yr	Description	Price	Yrs Life	- Non-Cash Over. -		- Cash Overhead -		Total
				Depre- ciation	Interest	Insur- ance	Taxes	
90	130 hp 2wd tractor	66000	10	5940.00	4356.00	181.50	363.00	10840.50
90	200 hp 4wd tractor	94000	10	8460.00	6204.00	258.50	517.00	15439.50
90	80 hp 2wd tractor	42000	10	3780.00	2772.00	115.50	231.00	6898.50
90	Border disc	1065	15	63.87	70.32	2.93	5.86	142.98
90	Chisel, heavy 11'	5300	15	318.00	349.80	14.58	29.15	711.53
90	Disc, finish, 21'	12500	15	750.00	825.00	34.38	68.75	1678.13
90	Disc, stubble, 16'	12500	15	750.00	825.00	34.38	68.75	1678.13
90	Ditcher, 5'	5300	15	318.00	349.80	14.58	29.15	711.53
90	Grain drill	8500	7	1092.86	561.00	23.38	46.75	1723.99
90	Rear blade, 3pt 8'	1900	15	114.00	125.40	5.22	10.45	255.07
90	Triplane, 16'	16000	15	960.00	1056.00	44.00	88.00	2148.00
TOTAL		265065		22546.73	17494.32	728.95	1457.86	42227.86
60% of New Cost *		159039		13528.04	10496.59	437.37	874.72	25336.72

* 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									
	Buildings	75000	25	3000.00	4500.00	187.50	375.00	350.00	8412.50
	Fuel tanks & equip	7000	15	466.67	420.00	17.50	35.00	50.00	989.17
	Pickup, new	18000	7	2314.29	1188.00	49.50	99.00	200.00	3850.79
	Pickup, used	4000	5	720.00	264.00	11.00	22.00	200.00	1217.00
	Shop tools	12000	10	1080.00	792.00	33.00	66.00	100.00	2071.00
	Siphon tubes	1700	7	242.86	102.00	4.25	8.50	50.00	407.61
TOTAL INVESTMENT		117700		7823.82	7266.00	302.75	605.50	950.00	16948.07

U.C. COOPERATIVE EXTENSION

Table. 3 continued

ANNUAL BUSINESS OVERHEAD COSTS

Description	Units/ Farm	Unit	Price/ Unit	Total Cost
Land rent	300.00	acre	50.00	15000.00
Office expense	1200.00	acre	20.00	24000.00

UC COOPERATIVE EXTENSION

Table. 4 U.C. COOPERATIVE EXTENSION
RANGING ANALYSIS

COSTS PER ACRE AT VARYING YIELDS TO PRODUCE BARLEY

	YIELD (TON/ACRE)						
	1.0	1.5	2.0	2.5	3.0	3.5	4.0
OPERATING COSTS/ACRE:							
Cultural Cost	159	159	159	159	159	159	159
Harvest Cost	20	23	25	28	30	33	35
Interest on operating capital	9	9	9	9	9	9	9
TOTAL OPERATING COSTS/ACRE	188	190	193	195	198	200	203
TOTAL OPERATING COSTS/TON	187.69	126.81	96.37	78.11	65.93	57.23	50.71
CASH OVERHEAD COSTS/ACRE	62	62	62	62	62	62	62
TOTAL CASH COSTS/ACRE	249	252	254	257	259	262	264
TOTAL CASH COSTS/TON	249.19	167.81	127.12	102.71	86.43	74.81	66.09
NON-CASH OVERHEAD COSTS/ACRE	25	25	25	25	25	25	25
TOTAL COSTS/ACRE	274	276	279	281	284	286	289
TOTAL COSTS/TON	273.79	184.21	139.42	112.55	94.63	81.83	72.24

Table. 4

U.C. COOPERATIVE EXTENSION
RANGING ANALYSIS (Continued)

NET RETURNS PER ACRE ABOVE OPERATING COSTS FOR BARLEY

PRICE (DOLLARS PER TON)	YIELD (TON/ACRE)						
	1.0	1.5	2.0	2.5	3.0	3.5	4.0
90.00	-98	-55	-13	30	72	115	157
100.00	-88	-40	7	55	102	150	197
110.00	-78	-25	27	80	132	185	237
120.00	-68	-10	47	105	162	220	277
130.00	-58	5	67	130	192	255	317
140.00	-48	20	87	155	222	290	357
150.00	-38	35	107	180	252	325	397

NET RETURNS PER ACRE ABOVE CASH COSTS FOR BARLEY

PRICE (DOLLARS PER TON)	YIELD (TON/ACRE)						
	1.0	1.5	2.0	2.5	3.0	3.5	4.0
90.00	-159	-117	-74	-32	11	53	96
100.00	-149	-102	-54	-7	41	88	136
110.00	-139	-87	-34	18	71	123	176
120.00	-129	-72	-14	43	101	158	216
130.00	-119	-57	6	68	131	193	256
140.00	-109	-42	26	93	161	228	296
150.00	-99	-27	46	118	191	263	336

NET RETURNS PER ACRE ABOVE TOTAL COSTS FOR BARLEY

PRICE (DOLLARS PER TON)	YIELD (TON/ACRE)						
	1.0	1.5	2.0	2.5	3.0	3.5	4.0
90.00	-184	-141	-99	-56	-14	29	71
100.00	-174	-126	-79	-31	16	64	111
110.00	-164	-111	-59	-6	46	99	151
120.00	-154	-96	-39	19	76	134	191
130.00	-144	-81	-19	44	106	169	231
140.00	-134	-66	1	69	136	204	271
150.00	-124	-51	21	94	166	239	311

Table. 5

U.C. COOPERATIVE EXTENSION
COST AND RETURNS / BREAKEVEN ANALYSIS
SAN JOAQUIN VALLEY

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)
Barley	300	195	105	257	43	281	19

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)
Barley	90000	58579	31421	77031	12969	84411	5589
TOTAL	90000	58579	31421	77031	12969	84411	5589

BREAKEVEN PRICES PER YIELD UNIT

CROP	Base Yield (Units/Acre)	Yield Units	Breakeven Price To Cover		
			Operating Costs	Cash Costs	Total Costs
Barley	2.5	ton	78.11	102.71	112.55

BREAKEVEN YIELDS PER ACRE

CROP	Yield Units	Base Price (\$/Unit)	Breakeven Yield To Cover		
			Operating Costs	Cash Costs	Total Costs
Barley	ton	120.00	1.6	2.1	2.3

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COOPERATIVE EXTENSION

MADERA COUNTY

- 328 MADERA AVENUE
- MADERA, CALIFORNIA 93637
- (209) 675-7879

**SAMPLE COST TO PRODUCE
BLACKEYE BEANS - DOUBLE CROPPED
IN
MADERA COUNTY - 1990**

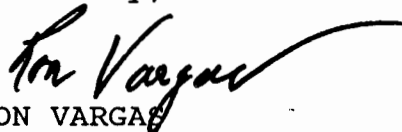
By

RON VARGAS, Farm Advisor, Madera County

The first step in intelligent crop planning is an objective analysis of production cost and potential profits. The sample costs on the reverse side of this page are for producing blackeye beans in Madera County. The figures used are from the latest and most reliable sources available and are based on good management practices. Water cost was based on irrigation district cost.

A suggested way to use the sample cost sheet is to insert your actual costs in the blank column and use the sample costs only when actual costs are not known. Overhead fixed cost may be omitted when comparing alternate crops.

Sincerely,



RON VARGAS
Farm Advisor

RV/nj

BLACK EYE BEANS - DOUBLE CROPPED
MADERA COUNTY - 1990

	YIELD	CASH	DEPR.	INTERES
Yield: CWT/acre field run	22			
CWT/acre clean basis	20			
Field labor per hour		5.60		
Equipment operator per hour		6.00		
Wheel tractor per hour - 80 hp		8.71	2.75	2.13
Wheel tractor per hour - 130 hp		12.16	5.00	3.87

	SAMPLE COSTS	
	Per Acre	Per CWT
PRE-HARVEST CASH AND OVERHEAD COSTS:		
Land preparation 3 hrs. labor & tractor 1-130hp, 2-80hp	47.58	
Preplant Herbicide:		
material - 6.94, application - 8.75	15.69	
Plant 1/4 hr./acre - labor and tractor	3.68	
Seed: 35 lbs. @ \$.30 inoculated	10.50	
Irrigate: 1 pre and 5 crop 6 hrs. labor	33.60	
water: 2 1/2 acre ft. @ \$13.00	32.50	
Cultivate 3X .5 hrs. labor and tractor	22.07	
Pest Control: materials - 20.80	20.80	
application - 2 X 5.00	10.00	
Taxes - (County and Irrigation District) - 1/2-\$31.55	15.78	
Misc. labor, materials, tractor .5 hr.	10.00	
Repairs (except tractor)	19.10	
Office and business costs	20.00	
TOTAL PRE-HARVEST COSTS	261.29	13.06

HARVEST COSTS:		
Cut and windrow: 38" rows, custom	25.00	
Harvest: \$2.50/cwt field run	55.00	
Haul: \$5.50/ton field run = up to 20 miles	6.05	
Reclean, fumigate		
Research & promotion		
Storage @ \$3.50 cwt clean basis	70.00	
TOTAL HARVEST COSTS	156.05	7.80
TOTAL CASH AND OVERHEAD COSTS	417.34	20.87

DEPRECIATION		
Irrigation system \$280 20 years	7.00	
Tractor 5.5 hrs. @ \$2.75, 1 hr. @ \$5.00	20.13	
Equipment	9.50	
TOTAL DEPRECIATION	36.63	1.83

INTEREST ON INVESTMENT @ 15%		
Irrigation system: 1/2 cost \$140	10.50	
Tractor 4.5 hrs. @ 2.13, 1 hr. @ \$3.87	9.59	
Equipment	13.45	
Land \$2000 - 1/2 cost	150.00	
TOTAL INTEREST ON INVESTMENT	183.54	9.18
TOTAL COST OF PRODUCTION	637.50	31.87

SAMPLE COSTS AT VARYING YIELDS

Yield: lbs./acre	1600	2000	2400	2800	3200
Cash Costs/CWT	26.08	20.86	17.38	14.90	13.04
Total Costs/CWT	39.84	31.87	26.56	22.76	19.92

LIMA BEANS

1990 COST ANALYSIS WORK SHEET
WARREN E. BENDIXEN
FARM ADVISOR

DRYLAND
YIELD: 1000 lbs/acre
(clean basis)

UNIVERSITY OF CALIFORNIA
COOPERATIVE EXTENSION
SANTA BARBARA COUNTY

LABOR COSTS*		TRACTOR OPERATING COSTS/HOUR								
Equipment Operator	Wages/Hour	Tractor	Acres/Hour	Hours/Acre	Labor	Fuel & Repairs	Materials: Kind & Amount	Costs	Sample	Your Cost
Other Labor	\$9.45 per hr. total \$8.43 per hr. total	AC	AC	Hr	\$	\$		\$	\$	\$
Equipment Operator	\$9.45 per hr. total	MWT	5.0	.40	3.78	6.40			10.18	
Other Labor	\$8.43 per hr. total	MWT	6.0	.34	3.21	5.44			8.65	\$22.35
		MWT	2.0	.50	4.73	4.00			8.73	11.14
		MWT	4.0	.25	2.36	2.00			4.36	7.86
		MWT	3.3	.30	2.84	2.40	Material \$18.00 + Application \$9.00	27.00	27.00	
		MWT	10.0	.10	.95	.80	Seed 80 lbs. @ \$.65 lb.	52.00	57.24	
		MWT	1.0	1.00	9.45	5.20			14.65	
		MWT	2.00	2.00	16.86	10.00			10.00	
		MWT							16.86	
		MWT							19.13	
Interest on Operating Capital - 12%				4.89	\$44.18	\$36.24		\$79.00	\$178.55	
HARVESTING COSTS										
Cutting		MWT	3.3	.30	2.84	1.56			4.40	
Windrow		MWT	3.3	.30	2.84	1.56			4.40	
Hand Labor				.10	.84				0.84	
Threshing - custom									31.63	
Haul - custom									5.75	
Cleaning - custom									48.88	
Storage and Bags									13.50	
TOTAL HARVESTING COSTS				.70	\$6.52	\$3.12			\$109.40	
Rent - 25% of 1,000 lbs. @ \$50/cwt									125.00	
Business and Office Costs - 4% of cultural, harvest and rent costs									16.52	
DEPRECIATION AND INTEREST										
Tractors								Interest 11%		
Other Equipment \$250 10 yrs. 50% cost								Depreciation	\$4.72	
TOTAL DEPRECIATION AND INTEREST									\$31.95	
TOTAL COST PER ACRE									\$461.42	
TOTAL COST PER CWT - clean beans									\$46.14	

*Social Security, Workman's Compensation, Insurance Included



LIMA BEANS



1990 COST ANALYSIS WORK SHEET

WARREN E. BENDIXEN
FARM ADVISOR

DRYLAND
(clean basis)

UNIVERSITY OF CALIFORNIA
COOPERATIVE EXTENSION
SANTA BARBARA COUNTY

PROFIT AS AFFECTED BY BEAN YIELD AND PRICE

Yield lb/acre Clean Basis	Total Production Costs/Acre	Price in Dollars Per Cwt.									
		\$36	\$40	\$44	\$48	\$52	\$56	\$60	\$64	\$68	
600	\$371.50	-155.50	-131.50	-107.50	-83.50	-59.50	-35.50	-11.50	+12.50	+36.50	
700	\$393.98	-141.98	-113.98	-85.98	-57.98	-29.98	-1.98	+26.02	+54.02	+82.02	
800	\$416.46	-128.46	-96.46	-64.46	-32.46	-00.46	+31.54	+63.54	+95.54	+127.54	
900	\$438.94	-114.94	-78.94	-42.94	-6.94	+29.06	+65.06	+101.06	+137.06	+173.06	
1000	\$461.42	-101.42	-61.42	-21.42	+18.58	+58.58	+98.58	+138.58	+178.58	+218.58	
1100	\$483.90	-87.90	-43.90	+00.10	+44.10	+88.10	+132.10	+176.10	+220.10	+264.10	
1200	\$506.38	-74.38	-26.38	+21.62	+69.62	+117.62	+165.62	+213.62	+261.62	+309.62	
1300	\$528.86	-60.86	-8.86	+43.14	+95.14	+147.14	+199.14	+251.14	+303.14	+355.14	
1400	\$551.34	-47.34	+8.66	+64.66	+120.66	+176.66	+232.66	+288.66	+344.66	+400.66	
1500	\$573.82	-33.82	+26.18	+86.18	+146.18	+206.18	+266.18	+326.18	+386.18	+446.18	
1600	\$596.30	-20.30	+43.70	+107.70	+171.70	+235.70	+299.70	+363.70	+427.70	+491.70	

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LIMA BEANS



1990 COST ANALYSIS WORK SHEET
WARREN E. BENDIXEN
FARM ADVISOR

SPRINKLER IRRIGATED
YIELD: 2600 lbs/acre
(clean basis)

UNIVERSITY OF CALIFORNIA
COOPERATIVE EXTENSION
SANTA BARBARA COUNTY

LABOR COSTS*

Equipment Operator	Other Labor	Wages/Hour	TRACTOR OPERATING COSTS/HOUR				Total
			Fuel & Repairs	Depreciation	Interest	Total	
		\$9.45 per hr. total	HWT - Wheel Diesel 150 hp	\$16.00	\$3.97	\$2.38	\$22.35
		\$8.43 per hr. total	MHT - Wheel Diesel 80 hp	8.00	1.96	1.18	11.14
			SVT - Small Wheel 50 hp	5.20	1.66	1.00	7.86

Operations.	Tractor	Acres/Hour	Hours/Acre	Labor	Fuel & Repairs	Materials: Kind & Amount	Costs	Cost/Acre	Your Cost
CULTURAL COSTS									
Disc 3X	HWT	5.0	.60	5.67	9.60			15.27	
Chisel	HWT	2.5	.40	3.78	6.40			10.18	
Harrow 2x	HWT	6.0	.17	1.61	2.72			4.33	
Fertilize - custom									
Weed Control - custom									
Plant	MHT	3.3	.30	2.84	2.40	60# N, 60# P ₂ O ₅ \$42.00 + Application \$10.50	52.50	52.50	
Post Emergence Herbicide						Herbicide \$34.40 + Application \$9.00	43.40	43.40	
Cultivate 4x	SVT	2.0	2.00	18.90	10.40	Seed 110 lbs @ \$.65	71.50	76.74	
Irrigate 5x						Herbicide \$18.75 + Application \$10.90	29.65	29.65	
Repairs to Equipment						Water 1 acre-foot @ \$45/acre foot	45.00	66.86	
Hand Hoe							12.00	12.00	
Insect Control - custom 1x						Insecticide \$5.27 + Application \$13.00	18.27	25.29	
Interest on Operating Capital - 12%								18.27	
TOTAL CULTURAL COSTS								46.05	
HARVESTING COSTS									
Cutting	SVT	3.3	.30	2.84	1.56			4.40	
Windrow	SVT	3.3	.30	2.84	1.56			4.40	
Hand Labor								1.89	
Threshing - custom								82.23	
Haul - custom						\$2.75 cwt. field run: 15% over clean wt.		14.95	
Cleaning - custom						\$4.25 cwt. field run: 15% over clean wt.		127.08	
Storage and Bags						Storage \$.75 cwt. Bags \$.65 cwt. clean wt.		36.40	
TOTAL HARVESTING COSTS								\$271.35	
Rent								250.00	
Business and Office Costs - 4% of cultural, harvest and rent costs								38.05	
DEPRECIATION AND INTEREST									
Irrigation System \$600 10 yrs. 50% cost								16.50	
Tractors								5.73	
Other Equipment \$250 10 yrs. 50% cost								13.75	
TOTAL DEPRECIATION AND INTEREST								\$35.98	
TOTAL COST PER ACRE								\$100.51	
TOTAL COST PER CWT - clean beans								\$1,089.75	

*Social Security, Workman's Compensation, Insurance Included

LIMA BEANS

1990 COST ANALYSIS WORK SHEET
 WARREN E. BENDIXEN
 FARM ADVISOR

SPRINKLER IRRIGATED
 YIELD: 2600 lbs/acre
 (clean basis)

UNIVERSITY OF CALIFORNIA
 COOPERATIVE EXTENSION
 SANTA BARBARA COUNTY

PROFIT AS AFFECTED BY BEAN YIELD AND PRICE

Yield lbs/acre	Total Production	Price in Dollars Per Cwt.									
		\$36	\$40	\$44	\$48	\$52	\$56	\$60	\$64	\$68	
2000	\$1,027.20	-307.20	-227.20	-147.20	-67.20	+12.80	+92.80	+172.80	+252.80	+332.80	
2200	\$1,048.05	-256.05	-168.05	-80.05	+7.95	+95.95	+183.95	+271.95	+359.95	+447.95	
2400	\$1,068.90	-204.90	-108.90	-12.90	+83.10	+179.10	+275.10	+371.10	+467.10	+563.10	
2600	\$1,089.75	-153.75	-69.75	+54.25	+158.25	+262.25	+366.25	+470.25	+574.25	+678.25	
2800	\$1,110.60	-102.60	+9.40	+121.40	+233.40	+345.40	+457.40	+569.40	+681.40	+793.40	
3000	\$1,131.45	-51.45	+68.55	+188.55	+308.55	+428.55	+548.55	+668.55	+788.55	+908.55	
3200	\$1,152.30	-00.30	+127.70	+255.70	+383.70	+511.70	+639.70	+767.70	+895.70	+1,023.70	
3400	\$1,173.15	+50.85	+186.85	+322.85	+458.85	+594.85	+730.85	866.85	+1,002.85	+1,138.85	
3600	\$1,194.00	+102.00	+246.00	+390.00	+534.00	+678.00	+822.00	+966.00	+1,110.00	+1,254.00	
3800	\$1,214.85	+153.15	+305.15	+457.15	+609.15	+761.15	+913.15	+1,065.15	+1,217.15	+1,369.15	
4000	\$1,235.70	+204.30	+364.30	+524.30	+684.30	+844.30	+1,004.30	+1,164.30	+1,324.30	+1,484.30	

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