

U.C. COOPERATIVE EXTENSION

SAMPLE COSTS TO PRODUCE RICE IN SUTTER, YUBA, PLACER & SACRAMENTO COUNTIES - 1992

by

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The detailed costs for rice production in Sutter, Yuba, Placer and Sacramento Counties are presented in this study. The hypothetical farm used in this report consists of 400 acres of rice production and no other crops.

Practices described are based on all of the production procedures considered typical for this crop and area, but not all of these practices are used by producers during any given year. 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 blank Your Cost column is provided to enter your actual costs on Table 1, Costs Per Acre To Produce Rice.

This study consists of General Assumptions for Producing Rice and seven tables.

Table 1.	Costs Per Acre To Produce Rice
Table 2.	Cost And Returns Per Acre To Produce Rice
Table 3.	Monthly Cash Costs Per Acre To Produce Rice
Table 4.	Annual Equipment, Investment And Business Overhead For Rice Production
Table 5.	Hourly Equipment Costs
Table 6.	Ranging Analysis
Table 7.	Cost 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 Sutter/Yuba Cooperative Extension office, Yuba County, (916) 741-7515.

Two companion studies entitled, "Sample Costs To Produce Organic Rice In The Sacramento Valley; Water Seeded and No-Till Drill Seeded" are available for those interested in organic rice production or a comparison of the two system.

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GENERAL ASSUMPTIONS FOR PRODUCING RICE
Sutter, Yuba, Placer and Sacramento Counties - 1992
U.C. Cooperative Extension

The following is a description of some general assumptions pertaining to sample costs of rice production in Sutter, Yuba, Placer and Sacramento Counties. The costs are based on all of the cultural practices used by growers in this region, some of which may not be used during every production year. Costs are represented on an annual, per acre basis. The use of trade names in this report does not constitute an endorsement or recommendation by the University of California nor is any criticism implied by omission of other similar products.

1. LAND:

This cost of production study is based on a 400 acre rice operation dedicated to growing rice only. No other crops are grown in rotation with rice. The land in this study is owned by the grower and costs \$2,000 per acre. Land is not depreciated.

2. CULTURAL PRACTICES:

This study assumes continuous rice production since most of the rice in the area is not rotated to other crops. Regular crop rotation often has the effect of reducing input costs (e.g. herbicides and fertilizers) and increasing yield. Rotation will also help with straw disposal problems. However, much rice land is unsuited to economic production for rotation crops. Temporary levees are also assumed because they are more common in this region. Nevertheless, many growers have installed permanent levee systems which require simple annual discing for maintenance.

Material inputs are based on the most common choices made by growers. Alternatives are available for most of them. Fertilizers and herbicides are almost universally used, so they are applied on 100% of the acreage. Products applied to less than 100% of the acreage are so noted, but costs are spread over the entire acreage.

Water supply is principally from an irrigation district, but is supplemented by well water. Use of well water is increasing as surface supplies for agriculture are diverted to other uses. Likewise, growers are installing tailwater return systems to conserve water and to help comply with stringent water holding regulations to maintain quality of drainage water. These expenses are reflected in this cost study.

Most of the equipment is used and was acquired at relatively low purchase prices. The only new equipment is the flail chopper which is added to inventory to help facilitate soil incorporation as an increasing proportion of rice straw as burning is phased out. In this study, the grower will incorporate rice straw on 30% of rice acreage. Eventually (by the year 2000) most growers will be using alternatives to burning on 100% of their acreage. Although a large percentage of the straw will continue to be incorporated, markets will most likely develop that encourage removal for other uses such as energy, paper, livestock feed, etc. Ultimately we can hope for either a breakeven or profitable use of straw. In the short-run, straw disposal is simply an additional cost to the grower. Costs for burning will vary widely for each air pollution control district. For this study, a \$50 burn permit is charged to the farm and additional \$0.50 per acre is charged for each acre burned. Check with the air pollution office in your region for burning regulations and fees.

The pesticides and rates mentioned in this cost study are a few of those that are listed in the UC IPM Rice Pest Management Guidelines. 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 due to pest pressures, crop rotations, water requirements and other factors. Contact the farm advisor for additional information.

3. YIELDS & RETURNS:

The crop yield used in this study is 75 hundredweight (cwt = 100 pounds) per acre at 13% moisture. An estimated price of a \$7.35 per cwt of grain is used. Returns will vary and the yields and prices used in this cost study are estimates based on current information. This study does not include any income that come from government programs. Federal farm programs under the 1990 Farm Bill require consideration by individual growers and landowners. Contact the Agricultural Stabilization and Conservation Service (ASCS) for help.

4. HARVEST:

In this cost study the farm owns its own harvesting equipment and performs its own harvest operations. The equipment for harvest operations are inventoried in investment costs on Table 4, and labor, fuel, repairs, depreciation, and operating interest, are calculated as harvest costs in Table 1. If a grower contracts his harvest operation, all harvesting equipment should be removed from investment costs in Table 4, its appropriate cost should be subtracted from harvest costs in Table 1 and a custom charge would then be added. Rice drying is charged at \$0.78 per cwt of dry rice and is calculated from a green weight table. Storage adds another \$0.55 per cwt on a dry weight basis.

5. TRANSPORTATION:

In practice, transportation of green and dry rice is often treated as an expense of processing or marketing and may not appear as a line item cost in a farmer's budget. However, it is ultimately a cost and is reflected in the price returned to the producer. In this study, the cost of transporting the rice is not included as a separate line item; it is deducted from the return to the grower. Transportation of green rice is based on distance from field to dryer plus a field pick up charge of \$0.055 per cwt. Typical freight would be: $(\$0.30/\text{cwt} + \$0.055/\text{cwt}) \times 83.65 \text{ cwt/acre} = \$29.70/\text{acre}$. Dry rice freight is based on distance and weight of the rice, but there is no pickup charge. Typical costs are; $\$0.30/\text{cwt} \times 75 \text{ cwt/acre} = \22.40 per acre .

6. LABOR:

Basic hourly wages for workers are \$7.46 per hour for machine and non-machine (field workers) labor. Adding 34% for SDI, FICA, insurance and other benefits increases the labor rates shown to \$10.00 per hour for machine and non-machine labor. The labor hours for operations involving machinery are 10% higher than the machine hours to account for extra labor involved in equipment set up, moving, maintenance and repair.

7. INVESTMENT:

The investments shown in Table 4 are those that are partially or completely allocated to the rice operation. Costs of investments such as tractors, harvesters, buildings, irrigation system, etc. can be spread over the whole farm. Annual investments shown in Table 1 represent depreciation and opportunity cost for each investment on an annual per acre basis.

8. OVERHEAD:

County taxes are calculated as 1.0% of the average value of equipment, buildings and improvements. Insurance is charged at 0.5% of the average value of the equipment over its useful life. Various farm and office expenses are estimated at \$7.50 per acre for the ranch. These expenses include office supplies, telephones, bookkeeping, accounting, legal fees and maintenance, etc.

9. INTEREST:

Interest on operating capital is based on cash costs and is calculated monthly for seven months until harvest at the rate of 9.00% per year. 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. 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 10% salvage value. (c) Interest on investment is calculated as the average value per acre of the equipment during its useful life, multiplied by an interest rate of 4.00%. Average value equals new cost plus salvage value divided by 2 on a per acre basis. (d) The total investment costs of the depreciation and the interest reflect a mix of new and used equipment. These values are also used in Table 1. Hourly equipment costs are shown in Table 5. The equipment listed in Tables 4 and 5 indicate only that equipment which is used in the rice enterprise and does not necessarily include all of the equipment that would be found on a typical farm growing rice.

11. FUEL & REPAIR:

The fuel and repair cost per acre for each operation in Table 1, is determined by multiplying the total hourly operating cost for each piece of equipment in Table 5, by the number of hours per acre for that operation. Prices for on-farm delivery of diesel and gasoline are \$0.71 and \$0.98 per gallon respectively.

Table 1.

U.C. COOPERATIVE EXTENSION
COSTS PER ACRE TO PRODUCE RICE
SUTTER, YUBA, PLACER & SACRAMENTO - 1992

Labor Rate: \$10.00/hr. machine labor Interest Rate: 9.00%
\$10.00/hr. non-machine labor Yield per Acre: 75 cwt

Operation	Operation Time (Hrs/A)	Labor Cost	Fuel & Repairs	Cash and Labor Material Cost	Costs per Acre Custom/Rent	Total Cost	Your Cost
Cultural:							
Mow roads	0.03	0.30	0.09	0.00	0.00	0.39	
Bulldoze levees	0.10	1.20	1.08	0.00	0.00	2.28	
Chisel	0.19	2.29	2.22	0.00	0.00	4.51	
Stubble disc	0.13	1.55	1.56	0.00	0.00	3.11	
Finish disc	0.11	1.31	1.44	0.00	0.00	2.75	
Triplane field - (3 of 4 years)	0.17	2.06	1.98	0.00	0.00	4.04	
Laser level field - (1 of 4 years)	0.00	0.00	0.00	0.00	18.75	18.75	
Fertilize - 16-20-0 @ 200#/acre	0.00	0.00	0.00	20.00	2.85	22.85	
Fertilize - aqua @ 110#/acre	0.15	1.80	1.48	4.40	3.00	10.68	
Fertilize - zinc @ 30#/acre	0.00	0.00	0.00	8.10	4.50	12.60	
Pull levees	0.12	1.44	1.30	0.00	0.00	2.74	
Apply Furadan on 50% of acreage	0.00	0.00	0.00	3.76	2.50	6.26	
Roll (final seedbed)	0.14	1.72	2.01	0.00	0.00	3.72	
Install boxes	0.25	2.50	0.00	3.80	0.00	6.30	
Irrigate	1.25	12.50	0.00	46.36	0.00	58.86	
Plant @ 160#/ac	0.00	0.00	0.00	19.20	10.14	29.34	
Apply copper - shrimp 1/2 acreage	0.00	0.00	0.00	7.40	2.50	9.90	
Apply herbicide - grasses	0.00	0.00	0.00	31.60	5.00	36.60	
Apply herbicide - broadleaves	0.00	0.00	0.00	32.31	5.00	37.31	
Pickup use	0.67	8.01	3.18	0.00	0.00	11.19	
TOTAL CULTURAL COSTS	3.31	36.67	16.32	176.93	54.24	284.17	
Harvest:							
Combine rice	0.61	7.33	15.53	0.00	0.00	22.86	
Bankout rice	0.61	7.33	0.58	0.00	0.00	7.92	
Haul to dryer - See Transportation section in Assumptions							
Dry green rice - 83.65 cwt/acr	0.00	0.00	0.00	0.00	58.50	58.50	
Store dry rice - 75 cwt/acre	0.00	0.00	0.00	0.00	41.25	41.25	
TOTAL HARVEST COSTS	1.22	14.66	16.11	0.00	99.75	130.52	
Postharvest:							
Mow levees	0.03	0.34	0.14	0.00	0.00	0.49	
Burn permit and fees	0.00	0.00	0.00	0.48	0.00	0.48	
Burn 70% of straw acreage	0.35	3.50	0.00	0.00	0.00	3.50	
Chop straw on ground - 10% of acreage	0.07	0.90	1.27	0.00	0.00	2.17	
Incorporate straw with disc	0.04	0.46	0.47	0.00	0.00	0.93	
TOTAL POSTHARVEST COSTS	0.49	5.20	1.88	0.48	0.00	7.57	
Interest on operating capital @ 9.00%							13.15
TOTAL OPERATING COSTS/ACRE		56.54	34.32	177.41	153.99	435.41	
TOTAL OPERATING COSTS/CWT							5.81
CASH OVERHEAD:							
Check Off - Research							3.75
Check Off - Promotion							2.25
Accounting & Legal							1.25
Farm Utilities							5.00
Miscellaneous Cost							2.50
Property Taxes							23.81
Equipment Insurance							11.90
Investment Repairs							4.38
TOTAL CASH OVERHEAD COSTS							54.84
TOTAL CASH COSTS/ACRE							490.25
TOTAL CASH COSTS/CWT							6.54
NON-CASH OVERHEAD:							
Investment	Per producing Acre		Depreciation	Annual Cost	Interest @ 4.00%		
Land	2000.00				80.00		80.00
Fuel Tanks & Pumps	20.13		1.01		0.40		1.41
Shop Building	92.50		4.63		1.85		6.47
Shop Tools	25.00		1.25		0.50		1.75
Rice Irrigation System	50.00		2.50		1.00		3.50
Tool Carrier	15.00		0.90		0.33		1.23
Fuel Wagon - 3/4 ton	3.75		0.34		0.08		0.42
Backhoe	17.50		1.05		0.39		1.43
Plow - 6 bottom	1.00		0.02		0.02		0.04
Tailwater Return System	60.00		2.70		1.32		4.02
Equipment	424.82		31.67		9.35		41.01
TOTAL NON-CASH OVERHEAD COSTS	2709.69		46.06		95.24		141.29
TOTAL COSTS/ACRE							631.54
TOTAL COSTS/CWT							8.42

Table 2.

U.C. COOPERATIVE EXTENSION
 COSTS AND RETURNS PER ACRE TO PRODUCE RICE
 SUTTER/YUBA/PLACER & SACRAMENTO COUNTIES - 1992

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.

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

	Quantity/Acre	Unit	Price or Cost/Unit	Value or Cost/Acre	Your Cost
=====					
GROSS RETURNS					
Rice	75.00	cwt	7.35	551.25	
TOTAL GROSS RETURNS FOR RICE				551.25	

OPERATING COSTS					
Custom:					
Laser leveling	0.25	acre	75.00	18.75	
Air appl - dry fertilizer	1.00	cwt	2.85	2.85	
Air appl - zinc	1.00	acre	4.50	4.50	
Air appl - pesticide	3.00	acre	5.00	15.00	
Soaking - seed	1.60	cwt	1.50	2.40	
Air appl - seed	1.80	cwt	4.30	7.74	
Fertilizer:					
16-20-0	200.00	lb	0.10	20.00	
Aqua	110.00	lb	0.04	4.40	
Zinc sulfate 26%	30.00	lb	0.27	8.10	
Rent:					
Fert. tank rental	1.00	each	3.00	3.00	
Insecticide:					
Furadan 5G	4.00	lb	0.94	3.76	
Misc.:					
Rice boxes	0.19	box	20.00	3.80	
Water:					
Water	72.00	acin	0.63	45.36	
Retrun Water Costs	1.00	acre	1.00	1.00	
Seed:					
Seed - rice	1.60	cwt	12.00	19.20	
Herbicide:					
Copper sulfate	10.00	lb	0.74	7.40	
Ordram 10G	40.00	lb	0.79	31.60	
Londax	1.67	oz	19.35	32.31	
Contract:					
Drying	75.00	cwt	0.78	58.50	
Storage	75.00	cwt	0.55	41.25	
Burn Permit:					
Burn Permit	1.00	acre	0.13	0.13	
Burning Fee	0.70	acre	0.50	0.35	
Labor (machine)	3.80	hrs	10.00	38.04	
Labor (non-machine)	1.85	hrs	10.00	18.50	
Fuel - Gas	1.33	gal	0.98	1.31	
Fuel - Diesel	19.89	gal	0.71	14.13	
Lube				2.31	
Machinery repair				16.57	
Interest on operating capital @ 9.00%				13.15	
TOTAL OPERATING COSTS/ACRE				435.41	
TOTAL OPERATING COSTS/CWT				5.81	
NET RETURNS ABOVE OPERATING COSTS				115.84	

CASH OVERHEAD COSTS:					
Check Off - Resear				3.75	
Check Off - Promot				2.25	
Accounting & Legal				1.25	
Farm Utilities				5.00	
Miscellaneous Cost				2.50	
Property Taxes				23.81	
Equipment Insurance				11.90	
Investment Repairs				4.38	
TOTAL CASH OVERHEAD COSTS/ACRE				54.84	

TOTAL CASH COSTS/ACRE				490.25	
TOTAL CASH COSTS/CWT				6.54	
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U.C. COOPERATIVE EXTENSION
Table 2. continued

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NON-CASH OVERHEAD COSTS (DEPRECIATION & INTEREST):
Land                                     80.00
Fuel Tanks & Pumps                       1.41
Shop Building                            6.47
Shop Tools                               1.75
Rice Irrigation System                   3.50
Tool Carrier                             1.23
Fuel Wagon - 3/4 ton                     0.42
Backhoe                                  1.43
Plow - 6 bottom                          0.04
Tailwater Return System                  4.02
Equipment                                41.01
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TOTAL NON-CASH OVERHEAD COSTS/ACRE      141.29
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TOTAL COSTS/ACRE                         631.54
TOTAL COSTS/CWT                           8.42
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NET RETURNS ABOVE TOTAL COSTS           -80.29
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Table 3.

U.C. COOPERATIVE EXTENSION
MONTHLY CASH COSTS PER ACRE TO PRODUCE RICE
SUTTER/YUBA/PLACER & SACRAMENTO COUNTIES - 1992

Beginning	APR 92	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	TOTAL
Ending	MAR 93	92	92	92	92	92	92	92	92	93	93	93	
Cultural:													
Mow roads		0.39											0.39
Bulldoze levees		2.28											2.28
Chisel		4.51											4.51
Stubble disc		3.11											3.11
Finish disc		2.75											2.75
Triplane field		4.04											4.04
Laser level field		18.75											18.75
Fertilize - 16-20-0		22.85											22.85
Fertilize - aqua		10.68											10.68
Fertilize - zinc		12.60											12.60
Pull levees		2.74											2.74
Apply Furadan		6.26											6.26
Roll (final seedbed)			3.72										3.72
Install boxes			6.30										6.30
Irrigate		10.26	12.15	12.15	12.15	12.15							58.86
Plant		29.34											29.34
Apply copper - shrimp		9.90											9.90
Apply herbicide - grasses		36.60											36.60
Apply herbicide - broadleaves			37.31										37.31
Pickup use	1.60	1.60	1.60	1.60	1.60	1.60	1.60						11.19
TOTAL CULTURAL COSTS		92.54	97.72	51.06	13.75	13.75	13.75	1.60					284.17
Harvest:													
Combine rice							22.86						22.86
Bankout rice							7.92						7.92
Haul to dryer - See Transportation section in Assumptions													
Dry green rice - 83.65 cw							58.50						58.50
Store dry rice - 75 cwt/a							41.25						41.25
TOTAL HARVEST COSTS							130.52						130.52
Postharvest:													
Mow levees							0.49						0.49
Burn permit and fees							0.48						0.48
Burn straw							3.50						3.50
Chop straw on ground							2.17						2.17
Incorporate straw with disc							0.93						0.93
TOTAL POSTHARVEST COSTS							7.57						7.57
Interest on oper. capital	0.69	1.43	1.81	1.91	2.02	2.12	3.17						13.15
TOTAL OPERATING COSTS/ACRE	93.24	99.15	52.87	15.66	15.76	15.87	142.86						435.41
TOTAL OPERATING COSTS/CWT	1.24	1.32	0.70	0.21	0.21	0.21	1.90						5.81
OVERHEAD:													
Check Off - Research							6.00						6.00
Check Off - Promotion							6.00						6.00
Accounting & Legal	0.18	0.18	0.18	0.18	0.18	0.18	0.18						1.25
Farm Utilities	0.71	0.71	0.71	0.71	0.71	0.71	0.71						5.00
Miscellaneous Cost	0.36	0.36	0.36	0.36	0.36	0.36	0.36						2.50
Property Taxes					11.90					11.90			23.81
Equipment Insurance					5.95					5.95			11.90
Investment Repairs	0.63	0.63	0.63	0.63	0.63	0.63	0.63						4.38
TOTAL CASH OVERHEAD COSTS	1.88	1.88	1.88	19.73	1.88	1.88	7.88			17.86			54.84
TOTAL CASH COSTS/ACRE	95.11	101.02	54.75	35.39	17.64	17.74	150.73			17.86			490.25
TOTAL CASH COSTS/CWT	1.27	1.35	0.73	0.47	0.24	0.24	2.01			0.24			6.54

Table 4.

U.C. COOPERATIVE EXTENSION
 ANNUAL EQUIPMENT, INVESTMENT, AND BUSINESS OVERHEAD COSTS
 SUTTER, YUBA, PLACER & SACRAMENTO COUNTIES - 1992

ANNUAL EQUIPMENT COSTS

Yr	Description	Price	Yrs Life	- Non-Cash Over. - Depre- ciation	Interest	- Cash Overhead - Insur- ance	Taxes	Total
80	140 hp 2wd tractor	23153	20	1041.90	509.36	63.67	127.34	1742.27
78	50 hp 2wd tractor	5568	25	200.44	122.50	15.31	30.63	368.88
80	Bankout Cart - SP	11694	20	526.25	257.26	32.16	64.31	879.98
60	Checker	2000	40	45.00	44.00	5.50	11.00	105.50
80	Chisel - mud 18'	3683	20	165.75	81.02	10.13	20.25	277.15
90	D7E with blade	27000	20	1215.00	594.00	74.25	148.50	2031.75
80	Disc - finish 21'	7016	20	315.70	154.36	19.30	38.59	527.95
80	Disc - offset 20'	4760	20	214.20	104.72	13.09	26.18	358.19
75	Mower - 3pt 8'	1090	40	24.52	23.98	3.00	6.00	57.50
92	Mower - flail 12'	11984	20	539.30	263.64	32.96	65.91	901.81
91	Mower - sicklebar 7'	3700	10	333.00	81.40	10.17	20.35	444.92
92	Pickup	9723	5	1750.20	213.90	26.74	53.48	2044.32
90	Rice combine	45000	7	5785.71	990.00	123.75	247.50	7146.96
85	Rice roller	6716	30	201.47	147.76	18.47	36.94	404.64
80	Triplane	6840	20	307.80	150.48	18.81	37.62	514.71
TOTAL		169927		12666.24	3738.38	467.31	934.60	17806.53

ANNUAL INVESTMENT COSTS

Yr	Description	Price	Yrs Life	- Non-Cash Over. - Depre- ciation	Interest	- Cash Overhead - Insur- ance	Taxes	Repairs	Total
INVESTMENT									
	Backhoe	7000	15	420.00	154.00	19.25	38.50	150.00	781.75
	Fuel Tanks & Pumps	8050	20	402.50	161.00	20.13	40.25	125.00	748.88
	Fuel Wagon - 3/4 ton	1500	10	135.00	33.00	4.13	8.25	50.00	230.38
	Rice Irrigation System	20000	20	1000.00	400.00	50.00	100.00	0.00	1550.00
	Land	800000			32000.00	4000.00	8000.00	0.00	44000.00
	Plow - 6 bottom	400	40	9.00	8.80	1.10	2.20	25.00	46.10
	Shop Building	37000	20	1850.00	740.00	92.50	185.00	250.00	3117.50
	Shop Tools	10000	20	500.00	200.00	25.00	50.00	100.00	875.00
	Tailwater Return System	24000	20	1080.00	528.00	66.00	132.00	1000.00	2806.00
	Tool Carrier	6000	15	360.00	132.00	16.50	33.00	50.00	591.50
TOTAL INVESTMENT		913950		5756.50	34356.80	4294.61	8589.20	1750.00	54747.11

ANNUAL BUSINESS OVERHEAD COSTS

Description	Units/ Farm	Unit	Price/ Unit	Total Cost
Accounting & Legal Fees	400.00	acre	1.25	500.00
Check Off - Promotion	30000.00	cwt	0.03	900.00
Check Off - Research	30000.00	cwt	0.05	1500.00
Farm Utilities	400.00	acre	5.00	2000.00
Miscellaneous Cost	400.00	acre	2.50	1000.00

Table 5.

U.C. COOPERATIVE EXTENSION
 HOURLY EQUIPMENT COSTS
 SUTTER, YUBA, PLACER & SACRAMENTO COUNTIES - 1992

Yr Description	COSTS PER HOUR								Total Costs/Hr.
	Actual Hours Used	-Non-Cash Depre- ciation	Over.- Interest	- Cash Insur- ance	Overhead Taxes	Repairs	Operating Fuel & Lube	Total Oper.	
80 140 hp 2wd tractor	433.0	2.41	1.18	0.15	0.29	2.32	6.63	8.95	12.97
78 50 hp 2wd tractor	23.6	8.50	5.20	0.65	1.30	0.56	2.00	2.56	18.21
80 Bankout Cart - SP	268.8	1.96	0.96	0.12	0.24	0.05	0.82	0.87	4.14
60 Checker	48.0	0.94	0.92	0.11	0.23	0.96	0.00	0.96	3.16
80 Chisel - mud 18'	76.4	2.17	1.06	0.13	0.27	1.77	0.00	1.77	5.40
90 D7E with blade	106.9	11.36	5.56	0.69	1.39	2.25	7.58	9.83	28.83
80 Disc - finish 21'	43.6	7.24	3.54	0.44	0.89	3.36	0.00	3.36	15.47
80 Disc - offset 20'	67.1	3.19	1.56	0.20	0.39	2.28	0.00	2.28	7.62
75 Mower - 3pt 8'	10.0	2.45	2.40	0.30	0.60	0.65	0.00	0.65	6.40
92 Mower - flail 12'	29.9	18.05	8.83	1.10	2.21	7.18	0.00	7.18	37.37
91 Mower - sicklebar 7'	11.4	29.13	7.12	0.89	1.78	2.22	0.00	2.22	41.15
92 Pickup	267.0	6.56	0.80	0.10	0.20	2.51	2.25	4.76	12.42
90 Rice combine	268.8	21.52	3.68	0.46	0.92	13.62	9.48	23.10	49.68
85 Rice roller	57.2	3.52	2.58	0.32	0.65	3.22	0.00	3.22	10.29
80 Triplane	68.7	4.48	2.19	0.27	0.55	1.66	0.00	1.66	9.16

Table 6.

U.C. COOPERATIVE EXTENSION
RANGING ANALYSIS
SUTTER, YUBA, PLACER & SACRAMENTO COUNTIES - 1992

COSTS PER ACRE AT VARYING YIELDS TO PRODUCE RICE

	YIELD (CWT/ACRE)						
	60	65	70	75	80	85	90
OPERATING COSTS/ACRE:							
Cultural Cost	284	284	284	284	284	284	284
Harvest Cost	111	117	124	131	137	144	150
Postharvest Cost	8	8	8	8	8	8	8
Interest on operating capital	13	13	13	13	13	13	13
TOTAL OPERATING COSTS/ACRE	415	422	429	435	442	449	456
TOTAL OPERATING COSTS/CWT	6.92	6.49	6.12	5.81	5.53	5.28	5.06
CASH OVERHEAD COSTS/ACRE							
	55	55	55	55	55	55	55
TOTAL CASH COSTS/ACRE	470	477	484	490	497	504	510
TOTAL CASH COSTS/CWT	7.84	7.34	6.91	6.54	6.21	5.93	5.67
NON-CASH OVERHEAD COSTS/ACRE							
	141	141	141	141	141	141	141
TOTAL COSTS/ACRE	611	618	625	632	638	645	652
TOTAL COSTS/CWT	10.19	9.51	8.93	8.42	7.98	7.59	7.24

NET RETURNS PER ACRE ABOVE OPERATING COSTS FOR RICE

PRICE (DOLLARS PER CWT)	YIELD (CWT/ACRE)						
	60	65	70	75	80	85	90
6.50	-25	0	26	52	78	104	129
6.75	-10	17	44	71	98	125	152
7.00	5	33	61	90	118	146	174
7.25	20	49	79	108	138	167	197
7.50	35	65	96	127	158	189	219
7.75	50	82	114	146	178	210	242
8.00	65	98	131	165	198	231	264

NET RETURNS PER ACRE ABOVE CASH COSTS FOR RICE

PRICE (DOLLARS PER CWT)	YIELD (CWT/ACRE)						
	60	65	70	75	80	85	90
6.50	-80	-54	-29	-3	23	49	75
6.75	-65	-38	-11	16	43	70	97
7.00	-50	-22	6	35	63	91	120
7.25	-35	-6	24	54	83	113	142
7.50	-20	11	41	72	103	134	165
7.75	-5	27	59	91	123	155	187
8.00	10	43	76	110	143	176	210

NET RETURNS PER ACRE ABOVE TOTAL COSTS FOR RICE

PRICE (DOLLARS PER CWT)	YIELD (CWT/ACRE)						
	60	65	70	75	80	85	90
6.50	-221	-196	-170	-144	-118	-92	-67
6.75	-206	-179	-152	-125	-98	-71	-44
7.00	-191	-163	-135	-107	-78	-50	-22
7.25	-176	-147	-117	-88	-58	-29	1
7.50	-161	-131	-100	-69	-38	-7	23
7.75	-146	-114	-82	-50	-18	14	46
8.00	-131	-98	-65	-32	2	35	68

Table 7.

U.C. COOPERATIVE EXTENSION
 COSTS AND RETURNS / BREAKEVEN ANALYSIS
 SUTTER, YUBA, PLACER & SACRAMENTO COUNTIES - 1992

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COSTS AND RETURNS - PER ACRE BASIS

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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)
Rice	551	435	116	490	61	632	-80

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COSTS AND RETURNS - TOTAL ACREAGE

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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)
Rice	220500	174164	46336	196100	24400	252617	-32117
TOTAL	220500	174164	46336	196100	24400	252617	-32117

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BREAKEVEN PRICES PER YIELD UNIT

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CROP	Base Yield (Units/Acre)	Yield Units	Breakeven Price To Cover		
			Operating Costs	Cash Costs	Total Costs
Rice	75.0	cwt	5.81	6.54	8.42

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BREAKEVEN YIELDS PER ACRE

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CROP	Yield Units	Base Price (\$/Unit)	Breakeven Yield To Cover		
			Operating Costs	Cash Costs	Total Costs
Rice	cwt	7.35	59.2	66.7	85.9

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