

# U.C. COOPERATIVE EXTENSION

## SAMPLE COSTS TO PRODUCE WILD RICE High Production Inputs IN SHASTA AND LASSEN COUNTIES - 1992

by

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The detailed costs for wild rice production using high production inputs in the Fall River Valley and Big Valley of Shasta and Lassen Counties are presented in this study. The hypothetical farm used in this report consists of 500 acres with 80 acre of wild rice production. The remainder of the farm is planted to different row and field 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 all situations. 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 Wild Rice and Table 2, Costs And Returns Per Acre To Produce Wild Rice.

This study consists of General Assumptions for Producing Wild Rice, High Production Inputs and seven tables.

Table 1.	Costs Per Acre To Produce Wild Rice
Table 2.	Costs And Returns Per Acre To Produce Wild Rice
Table 3.	Monthly Cash Costs Per Acre To Produce Wild Rice
Table 4.	Whole Farm Annual Equipment, Investment And Business Overhead
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 Shasta-Lassen County Cooperative Extension office, McArthur at the Inter-Mountain Fairgrounds, (916) 336-5784.

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# GENERAL ASSUMPTIONS FOR PRODUCING WILD RICE

High Production Costs  
Shasta-Lassen Counties - 1992  
U.C. Cooperative Extension

The following is a description of some general assumptions pertaining to sample costs of wild rice production in Shasta and Lassen 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 500 acre field and row crop farm, of which 80 acres are dedicated to growing wild rice. Other crops grown on the same acreage in rotation with wild rice might include small grains, alfalfa hay, sugar beets, garlic and strawberries.

## **2. RENT AGREEMENT:**

The 80 acres used for wild rice production is rented on a cash basis with the landowner receiving \$150 per acre. The tenant pays all cash costs to produce the crop. Interest cost for land and interest, depreciation and maintenance costs for the irrigation system are incurred by the landowner.

## **3. CULTURAL PRACTICES & INPUTS:**

The cultural practices and production inputs for growing wild rice vary considerably from grower to grower and field to field. The practices and inputs used in this cost study serve only as a sample or a guide and are for a wild rice enterprise that assumes the use of a large amount of inputs.

Seedbed preparation operations begin in April by discing the fields three times with a finishing disc. The fields are then leveled by a custom leveling operation.

All of the fertilizers are custom applied in May before the field is flooded and planted. A total of 54 pounds of actual nitrogen are applied to wild rice and 8 pounds of actual zinc.

Permanent levees are also assumed because they are common in this region. Most growers have installed permanent levee systems which require annual discing for maintenance. All fields have been laser leveled with straight levees. Maintenance laser leveling is done once a year.

Wild rice is irrigated in much the same way as regular rice (*Oryza sativa*), by flooding paddies in between levees. The first irrigation occurs in May just before planting and is maintained throughout the growing season. A total of 48 acre-inches is applied to the crop.

Wild rice is planted at a rate of 150 pounds of seed per acre in this study. Seed shatter during harvest can reseed a portion of next year's stand, thus lowering the amount of seed required for planting, but is not assumed in this study. Planting occurs in June after the paddies have been flooded. Seed, in this study, is assumed to cost \$1.80 per pound when bought on the open market. Growers that hold back some of their seed or buy back a portion of their production from the cooperative would pay approximately \$0.60 per pound for the green seed and an additional \$0.15 per pound for cold storage.

Pest management consists of a single herbicide application, two insecticide treatments, both of which are applied by air and continuous bird control. Copper sulfate is used for algae control in the paddies,

while malathion manages midge problems. Many species of birds eat the seed heads and are considered a pest in wild rice. Growers try to control bird damage using several different techniques. In this study, birds are managed by shooting them with a shotgun. No other pest problems are assumed.

The practices and inputs used in this cost study serve only as a typical guide. Variations in cultural inputs can vary due to seasonal pest pressures, water availability and government regulations. For information and pesticide use permits contact the Shasta and Lassen County Agricultural Commissioner's Office. Written recommendations are required for many pesticides and are written by licensed pest control advisors. Contact the Shasta-Lassen County wild rice farm advisor for additional information.

#### **4. HARVEST & DRYING:**

In this cost study the grower has the wild rice custom harvested. Trucks for the bankout operation and transportation to the cooperative are accomplished by the grower. It is assumed that the grower owns 20% of the seed bins that are required for harvest. Transportation to the cooperative is performed using the bobtail truck. If a grower is doing his own harvesting, equipment for the required operations should be added to investments on Tables 1 and 4. Labor, fuel, repairs, depreciation and interest on investment would need to be added to harvest operations and custom charges should be subtracted.

Wild rice is typically harvested at 35 - 40% moisture and dried to 10%. Drying wild rice is charged at \$0.34 per cwt (hundredweight) of finished (dry) wild rice.

#### **5. YIELDS & RETURNS:**

The crop yield used in this study is a finished or net weight of 700 pounds per acre at 10% moisture. A recovery rate is used to calculate the amount of finished wild rice from the yield of green wild rice and is the percentage of the finished weight in relation to the green weight. Losses from green to finished weight are made up of shatter loss, moisture loss and cleaning loss. A 47.5% recovery rate is used in this study. An estimated return price of \$1.40 per pound of finished 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 comes from voluntary participation in government programs. Federal farm programs under the 1990 Farm Bill may require consideration by individual growers and landowners. Contact the Agricultural Stabilization and Conservation Service (ASCS) for information

#### **6. RISK:**

The risks associated with the production of wild rice 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 wild rice production.

Because of the risk involved, access to a market is crucial. A grower should identify potential markets and where possible, have a contract for their grain before any wild rice production begins.

#### **7. LABOR:**

Basic hourly wages for workers are \$5.60 per hour for machine and \$3.73 per hour for non-machine (field workers) labor. Adding 34% for SDI, FICA, insurance and other benefits increases the labor rates shown to \$7.50 per hour for machine and \$5.00 per hour for non-machine labor. The labor for operations involving machinery are 20% higher than the operation time to account for the extra labor involved in equipment set up, moving, maintenance and repair.

#### **8. MANAGEMENT:**

Supervisory fees are not included in this study. Any return above total cost are considered a return to management and investment.

## **9. INVESTMENT:**

The investments shown in Table 4 are those that are partially or completely allocated to the wild rice operation. Costs of investments such as tractors, trucks, buildings, 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.

## **10. OVERHEAD:**

County taxes are calculated as 1.0% of the average value of equipment, buildings and improvements. Insurance on assets is charged at 0.5% of the average value of the asset over its useful life. Liability insurance covers accidents on the farm and costs \$850 for the entire farm or \$1.10 per acre. Various farm and office expenses are estimated at \$30 per acre for the ranch. These expenses include office supplies, utilities, telephones, bookkeeping, accounting, legal fees and maintenance, etc.

A State marketing order requires mandatory assessment fees to support the California Wild Rice Research Board. These fees are assessed each year at \$7.00 per acre for research. It is assumed that the wild rice grower in this cost study is a member of the Fall River Wild Rice Cooperative and as such pays a yearly acreage fee of \$0.50 per acre. Growers that become a member of the cooperative are charged a refundable, one time membership fee of \$1,000 and are assessed \$2.00 per acre for the acreage fee the first year. Member growers that increase their wild rice acreage over their original acreage must pay an expansion fee which varies from year to year. Contact the Fall River Wild Rice Cooperative for further information.

## **11. INTEREST:**

Interest on operating capital is based on cash costs and is calculated monthly until harvest at a rate of 9.00% per year. Real interest rates are used in this study, so no adjustments for inflation are included. Nominal interest rates would contain a factor for inflation which might run 3% to 4% higher than the real interest rate. 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.

## **12. EQUIPMENT COSTS:**

Most of the equipment inventories on typical wild rice farms in Shasta-Lassen County have high hours of use which reduces their value. This study shows current purchase price for new equipment with an adjustment of 40% of new value to indicate a mix of new and used equipment.

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 wild rice enterprise and does not necessarily include all of the equipment that would be found on a typical farm growing wild rice.

### **13. 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 WILD RICE  
 HIGH PRODUCTION INPUTS  
 SHASTA & LASSEN COUNTIES - 1992

Labor Rate: \$7.50/hr. machine labor                      Interest Rate: 9.00%  
 \$5.00/hr. non-machine labor                              Yield per Acre: 700 lbs. Finished Wt.

Operation	Operation Time (Hrs/A)	Cash and Labor Costs per Acre				Total Cost	Your Cost
		Labor Cost	Fuel & Repairs	Material Cost	Custom/Rent		
<b>Cultural:</b>							
Disk 3X	0.69	6.18	9.83	0.00	0.00	16.01	
Land Leveling	0.00	0.00	0.00	0.00	120.00	120.00	
Fertilize - Aqua @ 100 Lbs/Ac	0.15	1.35	0.00	22.00	6.00	29.35	
Fertilize - Zinc @ 30 Lbs/Ac	0.00	0.00	0.00	8.10	7.00	15.10	
Fertilize - 16-20-0 @ 200 Lbs/Ac	0.00	0.00	0.00	22.00	6.00	28.00	
Flood & Maintain Water - 4 AcFt	0.00	0.00	0.00	24.00	0.00	24.00	
Plant @ 150 Lbs/Acre	0.13	1.13	1.29	270.00	0.00	272.41	
Algae Control	0.00	0.00	0.00	7.10	7.00	14.10	
Midge Control 2X	0.00	0.00	0.00	3.60	14.00	17.60	
Bird Control	2.00	10.00	0.00	60.00	0.00	70.00	
Pickup Truck Use	0.13	1.20	0.69	0.00	0.00	1.89	
<b>TOTAL CULTURAL COSTS</b>	<b>3.10</b>	<b>19.86</b>	<b>11.80</b>	<b>416.80</b>	<b>160.00</b>	<b>608.46</b>	
<b>Harvest:</b>							
Combine Rice	0.00	0.00	0.00	0.00	75.00	75.00	
Bankout Rice & Haul To Cooperative	0.25	2.25	1.41	0.00	0.00	3.66	
Process Green Rice	0.00	0.00	0.00	0.00	238.00	238.00	
<b>TOTAL HARVEST COSTS</b>	<b>0.25</b>	<b>2.25</b>	<b>1.41</b>	<b>0.00</b>	<b>313.00</b>	<b>316.66</b>	
<b>Postharvest:</b>							
Disc Stubble	0.25	2.25	3.58	0.00	0.00	5.83	
<b>TOTAL POSTHARVEST COSTS</b>	<b>0.25</b>	<b>2.25</b>	<b>3.58</b>	<b>0.00</b>	<b>0.00</b>	<b>5.83</b>	
Interest on operating capital @ 9.00%						27.10	
<b>TOTAL OPERATING COSTS/ACRE</b>		<b>24.36</b>	<b>16.79</b>	<b>416.80</b>	<b>473.00</b>	<b>958.05</b>	
<b>TOTAL OPERATING COSTS/LBS</b>						<b>1.37</b>	
<b>CASH OVERHEAD:</b>							
Land Rent						150.00	
Office Expense						30.00	
Marketing Order						7.00	
Coop Acreage Fee						0.50	
Liability Insurance						1.10	
Property Taxes						1.07	
Equipment Insurance						0.54	
Investment Repairs						0.75	
<b>TOTAL CASH OVERHEAD COSTS</b>						<b>190.96</b>	
<b>TOTAL CASH COSTS/ACRE</b>						<b>1149.01</b>	
<b>TOTAL CASH COSTS/LBS</b>						<b>1.64</b>	
<b>NON-CASH OVERHEAD:</b>							
	Per producing	Annual Cost					
Investment	Acres	Depreciation	Interest @ 4.00%				
Shop Building	74.00	3.70	1.48	5.18			
Shop Tools	20.00	1.00	0.40	1.40			
Fuel Tanks & Pumps	16.10	0.81	0.32	1.13			
Fuel Wagon	3.00	0.27	0.07	0.34			
Equipment	90.90	6.02	2.04	8.07			
<b>TOTAL NON-CASH OVERHEAD COSTS</b>	<b>204.00</b>	<b>11.80</b>	<b>4.31</b>	<b>16.11</b>			
<b>TOTAL COSTS/ACRE</b>						<b>1165.13</b>	
<b>TOTAL COSTS/LBS</b>						<b>1.66</b>	



Table 3.

U.C. COOPERATIVE EXTENSION  
 MONTHLY CASH COSTS PER ACRE TO PRODUCE WILD RICE  
 HIGH PRODUCTION INPUTS  
 SHASTA & LASSEN COUNTIES - 1992

Beginning APR 92 Ending DEC 92	JAN 92	FEB 92	MAR 92	APR 92	MAY 92	JUN 92	JUL 92	AUG 92	SEP 92	OCT 92	NOV 92	DEC 92	TOTAL
Cultural:													
Disk 3X				16.01									16.01
Land Leveling				120.00									120.00
Fertilize - Aqua					29.35								29.35
Fertilize - Zinc					15.10								15.10
Fertilize - 16-20-0					28.00								28.00
Flood & Maintain Water Plant					4.80	4.80	4.80	4.80	4.80				24.00
Algae Control						272.41							272.41
Midge Control 2X						14.10							14.10
Bird Control						17.60							17.60
Pickup Truck Use				0.27	0.27	0.27	70.00	0.27	0.27	0.27	0.27		70.00
							0.27	0.27	0.27	0.27			1.89
TOTAL CULTURAL COSTS				136.28	77.52	309.18	75.07	5.07	5.07	0.27			608.46
Harvest:													
Combine Rice										75.00			75.00
Bankout Rice & Haul To Coop										3.66			3.66
Process Green Rice										238.00			238.00
TOTAL HARVEST COSTS										316.66			316.66
Postharvest:													
Disc Stubble										5.83			5.83
TOTAL POSTHARVEST COSTS										5.83			5.83
Interest on oper. capital				1.02	1.60	3.92	4.49	4.52	4.56	6.98			27.10
TOTAL OPERATING COSTS/ACRE				137.30	79.12	313.11	79.55	9.59	9.63	329.74			958.05
TOTAL OPERATING COSTS/LBS				0.20	0.11	0.45	0.11	0.01	0.01	0.47			1.37
OVERHEAD:													
Land Rent	150.00												150.00
Office Expense				4.29	4.29	4.29	4.29	4.29	4.29	4.29			30.00
Marketing Order				3.50							3.50		7.00
Coop Acreage Fee				0.50									0.50
Liability Insurance	1.10												1.10
Property Taxes							0.54						1.07
Equipment Insurance							0.27						0.54
Investment Repairs				0.11	0.11	0.11	0.11	0.11	0.11	0.11			0.75
TOTAL CASH OVERHEAD COSTS	151.10			8.39	4.39	4.39	5.20	4.39	4.39	4.39	3.50		190.96
TOTAL CASH COSTS/ACRE	151.10			145.69	83.52	317.50	84.75	13.99	14.02	334.13	3.50		1149.01
TOTAL CASH COSTS/LB	0.22			0.21	0.12	0.45	0.12	0.02	0.02	0.48	0.00		1.64

Table 4. U.C. COOPERATIVE EXTENSION  
WHOLE FARM ANNUAL EQUIPMENT, INVESTMENT, AND BUSINESS OVERHEAD COSTS  
SHASTA & LASSEN COUNTIES - 1992

ANNUAL EQUIPMENT COSTS

Yr	Description	Price	Yrs Life	- Non-Cash Over. -		- Cash Overhead -		Total
				Depre- ciation	Interest	Insur- ance	Taxes	
92	150 HP 2wd Tractor	50000	12	3333.33	1200.00	150.00	300.00	4983.33
92	Fertilizer Spreader	2000	10	180.00	44.00	5.50	11.00	240.50
92	Harrow - Spiketooth	1500	15	90.00	33.00	4.13	8.25	135.38
92	Harvest Bins - 16	4000	20	180.00	88.00	11.00	22.00	301.00
92	Offset Disk - 20'	22378	15	1342.00	492.52	61.56	123.13	2019.21
92	Pickup Truck	24000	7	3085.71	528.00	66.00	132.00	3811.71
92	Truck - Bobtail	20000	16	1125.00	440.00	55.00	110.00	1730.00
TOTAL		123878		9336.04	2825.52	353.19	706.38	13221.13
40% of New Cost *		49551		3734.42	1130.21	141.28	282.55	5288.45

\* Used to reflect a mix of new and used equipment.

ANNUAL INVESTMENT COSTS

Yr	Description	Price	Yrs Life	- Non-Cash Over. -		- Cash Overhead -			Total
				Depre- ciation	Interest	Insur- ance	Taxes	Repairs	
INVESTMENT									
	Fuel Tanks & Pumps	8050	20	402.50	161.00	20.13	40.25	125.00	748.88
	Fuel Wagon	1500	10	135.00	33.00	4.13	8.25	50.00	230.38
	Shop Building	37000	20	1850.00	740.00	92.50	185.00	100.00	2967.50
	Shop Tools	10000	20	500.00	200.00	25.00	50.00	100.00	875.00
TOTAL INVESTMENT		56550		2887.50	1134.00	141.76	283.50	375.00	4821.76

ANNUAL BUSINESS OVERHEAD COSTS

Description	Units/ Farm	Unit	Price/ Unit	Total Cost
Coop Acreage Fee	80.00	acre	0.50	40.00
Land Rent	80.00	acre	150.00	12000.00
Liability Insurance	500.00	acre	1.10	550.00
Marketing Order	80.00	acre	7.00	560.00
Office Expense	500.00	acre	30.00	15000.00

Table 5. U.C. COOPERATIVE EXTENSION  
HOURLY EQUIPMENT COSTS  
SHASTA & LASSEN COUNTIES - 1992

COSTS PER HOUR

Yr	Description	Actual Hours Used	- Non-Cash Over. -		- Cash Overhead -		- Operating -		Total Costs/Hr.	
			Depre- ciation	Interest	Insur- ance	Taxes	Repairs	Fuel & Lube		Total Oper.
92	150 HP 2wd Tractor	1090.1	1.22	0.44	0.06	0.11	2.00	7.11	9.11	10.94
92	Fertilizer Spreader	40.0	1.80	0.44	0.06	0.11	0.00	0.00	0.00	2.41
92	Harrow - Spiketooth	166.0	0.22	0.08	0.01	0.02	0.29	0.00	0.29	0.61
92	Harvest Bins - 16	200.0	0.36	0.18	0.02	0.04	0.00	0.00	0.00	0.60
92	Offset Disk - 20'	170.0	3.16	1.16	0.14	0.29	4.28	0.00	4.28	9.04
92	Pickup Truck	210.7	5.86	1.00	0.13	0.25	2.90	2.25	5.15	12.39
92	Truck - Bobtail	220.0	2.05	0.80	0.10	0.20	3.20	2.45	5.65	8.80

Table 6. U.C. COOPERATIVE EXTENSION  
RANGING ANALYSIS  
SHASTA & LASSEN COUNTIES - 1992

COSTS PER ACRE AT VARYING YIELDS TO PRODUCE WILD RICE

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	YIELD (LB/ACRE)						
	700	900	1100	1300	1500	1700	1900
OPERATING COSTS/ACRE:							
Cultural Cost	608	608	608	608	608	608	608
Harvest Cost	183	227	272	317	361	406	451
Postharvest Cost	6	6	6	6	6	6	6
Interest on operating capital	26	26	27	27	27	28	28
TOTAL OPERATING COSTS/ACRE	823	868	913	958	1003	1048	1093
TOTAL OPERATING COSTS/LBS	2.06	1.74	1.52	1.37	1.25	1.16	1.09
CASH OVERHEAD COSTS/ACRE							
TOTAL CASH COSTS/ACRE	1014	1059	1104	1149	1194	1239	1284
TOTAL CASH COSTS/LBS	2.53	2.12	1.84	1.64	1.49	1.38	1.28
NON-CASH OVERHEAD COSTS/ACRE							
TOTAL COSTS/ACRE	1030	1075	1120	1165	1210	1255	1300
TOTAL COSTS/LBS	2.57	2.15	1.87	1.66	1.51	1.39	1.30

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NET RETURNS PER ACRE ABOVE OPERATING COSTS FOR WILD RICE

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PRICE (DOLLARS PER LB)	YIELD (LB/ACRE)						
	700	900	1100	1300	1500	1700	1900
1.10	-383	-318	-253	-188	-123	-58	7
1.20	-343	-268	-193	-118	-43	32	107
1.30	-303	-218	-133	-48	37	122	207
1.40	-263	-168	-73	22	117	212	307
1.50	-223	-118	-13	92	197	302	407
1.60	-183	-68	47	162	277	392	507
1.70	-143	-18	107	232	357	482	607

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NET RETURNS PER ACRE ABOVE CASH COSTS FOR WILD RICE

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PRICE (DOLLARS PER LBS)	YIELD (LBS/ACRE)						
	400	500	600	700	800	900	1000
1.10	-574	-509	-444	-379	-314	-249	-184
1.20	-534	-459	-384	-309	-234	-159	-84
1.30	-494	-409	-324	-239	-154	-69	16
1.40	-454	-359	-264	-169	-74	21	116
1.50	-414	-309	-204	-99	6	111	216
1.60	-374	-259	-144	-29	86	201	316
1.70	-334	-209	-84	41	166	291	416

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NET RETURNS PER ACRE ABOVE TOTAL COSTS FOR WILD RICE

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PRICE (DOLLARS PER LBS)	YIELD (LBS/ACRE)						
	400	500	600	700	800	900	1000
1.10	-590	-525	-460	-395	-330	-265	-200
1.20	-550	-475	-400	-325	-250	-175	-100
1.30	-510	-425	-340	-255	-170	-85	-0
1.40	-470	-375	-280	-185	-90	5	100
1.50	-430	-325	-220	-115	-10	95	200
1.60	-390	-275	-160	-45	70	185	300
1.70	-350	-225	-100	25	150	275	400

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Table 7.

U.C. COOPERATIVE EXTENSION  
 COSTS AND RETURNS / BREAKEVEN ANALYSIS  
 SHASTA & LASSEN COUNTIES - 1992

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)
Wild Rice	980	958	22	1149	-169	1165	-185

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)
Wild Rice	78400	76644	1756	91921	-13521	93203	-14803

BREAKEVEN PRICES PER YIELD UNIT

CROP	Base Yield (Units/Acre)	Yield Units	Breakeven Price To Cover		
			Operating Costs	Cash Costs	Total Costs
Wild Rice	700.0	lbs	1.37	1.64	1.66

BREAKEVEN YIELDS PER ACRE

CROP	Yield Units	Base Price (\$/Unit)	Breakeven Yield To Cover		
			Operating Costs	Cash Costs	Total Costs
Wild Rice	lbs	1.40	684.3	820.7	832.2