

Data on Acreage, Yield, and Price

	Colusa County			California	
	Acres	Yield	Price	Acres	Yield
1945	48,674	2,465	3.25	235,000	2,660
1946	55,000	2,545	3.81	261,000	3,030
1947	52,000	2,585	6.64	256,000	3,140
1948	49,500	2,460	4.66	256,000	2,670
1949	63,040	3,000	3.30	305,000	3,350
1950	47,693	3,100	4.45	238,000	3,480
1951	71,327	2,600	4.75	314,000	3,300
1952	73,012	3,140	6.03	330,000	3,600

Source: Colusa County Agricultural Commissioner
and U.S.D.A. Bureau of Agricultural Economics.

RICE

COSTS

IN
COLUSA
COUNTY

200 copies
January 1954
DB

Agricultural Extension Service
University of California
Postoffice Bldg., Colusa

RICE COSTS IN COLUSA COUNTY

Karl Ingebretsen, Farm Advisor
Doyle Reed, Extension Economist

This publication is primarily for the beginner or the man contemplating rice production for the first time, and is designed to give a method of figuring production costs. The costs given here are typical of Colusa County. However, as in all cost data, certain conditions must be assumed. Costs will vary when rice is grown under conditions other than those used in compiling this publication.

Size of Operation

The minimum size of operation to return a satisfactory living is about 150 acres. This will vary depending on the productive capacity of the land, the price level, and the managerial ability of the operator.

However, the amount and size of equipment which is necessary for rice production will permit one man, with a minimum of hired labor, to handle 300 acres. This same equipment will also handle up to 450 acres by using more hired labor. It is to the operator's advantage to farm as large an acreage as possible in order to reduce the overhead per acre.

Using smaller equipment or fewer machines usually does not prove successful because jobs cannot be performed when needed, with resulting lower yields.

Yields

Rice is Colusa County's major crop, being produced on about 75,000 acres of land in Colusa County. This is an increase of about 3 times over the pre-war acreage. Most of the heavy soils of the county are adapted to rice production. Alkali prohibits production in some areas, and other crops may be more profitable on the better soils.

Average yields for the county declined materially in the early 40's as less suitable land was brought into production. Yields have increased during the past few years however, due to more use of fertilizer, land leveling, and other practices. Yields for the years 1948-52 averaged 2,870 pounds per acre.

Yields of 3,500 pounds should be obtained on most of our rice land with good management.

Suggested Reading

- "Rice Production in California" - Loren Davis
California Agricultural Extension Bulletin 163-1949
- "Rice Fertilization in Colusa County" - Karl H. Ingebretsen, Agricultural Extension Service - 1953
- "The Rice Journal" - 806 Perdida St., New Orleans, La.
- "Rice Production & Marketing in the United States"
U.S.D.A. Miscellaneous Publication No. 615
- "Rice Market Review" - Federal-State
Market News Service, San Francisco

ROTATIONS:

In all well managed farm operations there should be a planned rotation system. The purpose of this rotation in rice farming is to rest the soil, allowing it to aerate or dry out. It is also considered essential in control of some aquatic weeds. The common rotations in Colusa County are three years rice out of five, or two years out of three. If rice is the only crop grown on the land, it might be advantageous to fallow about one year out of three. The cost of the idle or fallow year should be distributed into the productive years.

The costs on the preceding page assume that rice had not been grown on the land the preceding year, thus requiring the erection of levees.

Under these conditions the second year of rice on this land would have the costs reduced by the expenses of two diskings, the floating and the checking, or a total cost per acre of.....\$99.33

The third year or fallow year, would have a per acre cost of about.....\$25.00

The next year, or the first year in rice again, we can eliminate the plowing and floating costs taken care of in the preceding or the fallow year, leaving a cost per acre of.....\$104.08

The three year rotation outlined could then be followed, giving a cost per acre for the three years of.....\$228.41

With two crops of 3500 lbs. each, or a total of 7,000 lbs., this gives a cost per cwt. for the three years of.....\$3.27

EQUIPMENT AND INVESTMENT

For 300 acres of rice

	<u>Approximate New Cost</u>
Machinery:	
Crawler tractor 60-70 Drawbar H.P.	\$ 11,000
Crawler tractor 30-40 Drawbar H.P.	6,000
Truck 1½ ton	3,000
Pick-up	2,400
Plow 10-14"	1,500
Disk 18'	2,000
Harrow, Spike Tooth 20'	200
Float 12'x30'	150
Dozer 6'	1,000
Bankout Wagon	2,000
Self-propelled harvester 2-14'	16,000
Tools and Small Equipment	3,000
Total Machinery.....	<u>\$ 48,250</u>
Land-300 acres @ \$150	45,000
Ditches, Roads, etc. 30 acres @ \$150	4,500
Total Investment.....	<u>\$ 97,750</u>
Cash costs to raise Crop @ \$58.15/A	17,445
Total Invested before Crop Harvested...	<u>\$115,195</u>

It is desirable to have a small tractor with blade or bucket for closing checks and other odd jobs. A second 1½ ton truck may also be needed if hauling distance to dryer is above average.

The investment may be reduced by purchasing second-hand equipment. Good second-hand equipment is often a better buy than new equipment.

SAMPLE COSTS FOR GROWING FIRST YEAR RICE
OWNER - OPERATED FARM

Based on producing 300 acres rice

Yield - 3,500 lbs. dry paddy rice per acre

Labor @ \$1-\$2 per hour

Operation, Crew and Equipment	Hours per Acre	Cash Cost per Acre					Total Cash Cost	Int & Deprec. on Equip.	Total Cost per Acre
		Labor	Tractor and Equip.	Contract	Materials				
					Kind	Amount			
Cultural Costs									
Plow: man, tractor, 10-14" plow	.5	.60	.85				1.45	1.25	2.70
Disk: 2 times: man, tractor 18' disk	.6	.75	1.05				1.80	1.15	2.95
Float: 2 times: man, tract. 12'x30' float	.4	.50	.65				1.15	.50	1.65
Survey: custom				.50			.50		.50
Check: man, tract. (1 tract. checker hired)	.3	.40	.60	2.70			3.70	.30	4.00
Disk & harrow: man, tract., disk & harrow	.3	.40	.55				.95	.65	1.60
Fertilize: plane				3.00	Nitrogen 60#	9.00	12.00		12.00
Flood:	.5	.50					.50		.50
Seed: plane				1.50	Seed 150#	12.00	13.50		13.50
Irrigate	2.0	2.00			Water	7.50	9.50	1.00	10.50
Spray 2 times: plane				2.50	Spray	3.50	6.00		6.00
Drain and open checks	.1	.10					.10		.10
Bird control: man and plane		.60		.40			1.00		1.00
Total cultural cost		5.85	3.70	10.60		32.00	52.15	4.85	57.00
Harvest Cost									
Combine: 2 man, 2 self propelled	.6	2.40	5.40				7.80	5.50	13.30
Bankout: man, tractor, bankout wagon	.6	.85	1.25				2.10	1.35	3.45
Haul to mill: man, 1½ ton truck	.6	.70	.65				1.35	1.00	2.35
Dry: 38 cwt wet @ 35¢				13.30			13.30		13.30
Storage 3500 lbs. @ \$3.16 ton				5.53			5.53		5.53
Total harvest cost		3.95	7.30	18.83			30.08	7.85	37.93
Total		9.80	11.00	29.43		32.00	82.23	12.70	94.93
Miscellaneous Costs:									
							3.00		
							3.00		
								7.50	
							6.00	7.50	13.50
							88.23	20.20	108.43
									\$3.10

Tractor and equipment cost includes fuel, repairs and other cash costs.

Interest on land \$150 @ 5%
Total Miscellaneous
Total Cost per Acre
Cost per cwt.

SAMPLE INPUTS AND COSTS FOR PRUNES IN SAN BENITO COUNTY
With a Yield of 2 Dried Tons per Acre

	Man	Trac-	Truck	Cost per acre	Cost per ton	My cost per A.
	labor	tor				
	Hours per acre					
Pruning @ \$1 per hour	25			25.00		
Brush disposal	2		1.0	4.70		
Spraying, av. 1 application incl. .75 for rig	2	1.0		5.85		
Dusting, contract, 1 application				(2.50) <i>from</i>		
Cultivate and check or furrow	5	4.5		18.95		
Irrigation, twice @ .90 an hour	12			10.80		
Misc. covercrop, etc.	3	1.0	1.0	8.80		
Total cultural labor	49	6.5	2.0	76.60	38.30	
Propping, bracing, etc.	2		1.0	4.70	2.35	
Picking, 5 fresh tons @ \$10 - shake and pick	50			50.00	25.00	
Supervision, hauling out and misc. harvest	8		3.0	16.40	8.20	
Dehydrating (contract) @ \$12 per fresh ton				60.00	30.00	
Hauling to market 2 dry tons	2		1.0	4.80	2.40	
Total labor	111	6.5	7.0	212.50	106.25	
Irrigation, power to pump 12A in. 100' lift				6.70		
Covercrop seed				2.50		
Spray and dusting materials				15.00		
Misc. materials				2.00		
Total material cost				26.20	13.10	
General expense, office, phone, car, etc at 5% of L & M.				11.94		
County taxes, \$310 value @ \$3.25				10.00		
Repairs to facilities				2.00		
Insurance, compensation on hired labor \$1.90, fire on equip. .60				2.50		
Total cash overhead				26.44	13.22	
Total cash costs				265.14	132.57	
Investment based on 30 acre orchard unit	Orig. cost 30 A.	Aver. Value	5% Int.	Deprec- iation		
		Dollars per acre				
Trees, development cost \$360/A	10800	180	9.00	12.00		
Building for equip., etc.	600	10	.50	.75		
Irrig. well, pump, & pipeline	4800	80	4.00	5.00		
Tillage equipment	540	9	.45	1.80		
Spraying equipment, part owner	900	15	.75	2.00		
Misc. ladders, boxes, props, etc.	900	15	.75	2.50		
Land	12000	400	20.00			
Total investment	30540	709				
Total depreciation				24.05	24.05	12.03
Total cash and depreciation costs				289.19	144.60	
Total interest on investment			35.45	35.45	17.72	
Total costs except management				324.64	162.32	

The above labor costs are computed at the following hourly rates: Pruning, spraying, truck driving, tractor driving and supervision, \$1.00, other labor \$0.90, 3 plow track tractor \$3.10, 1½-ton truck \$2.80. Tractor and truck rates are estimated to cover overhead and repairs as well as actual operating costs, and are based on original cost of new machines as of 1951. Average investment per acre for depreciable facilities is shown above at half of the original costs. Trees are assumed to cost \$360 an acre and be good for 30 years of profitable bearing, so depreciation is \$12 per year.