

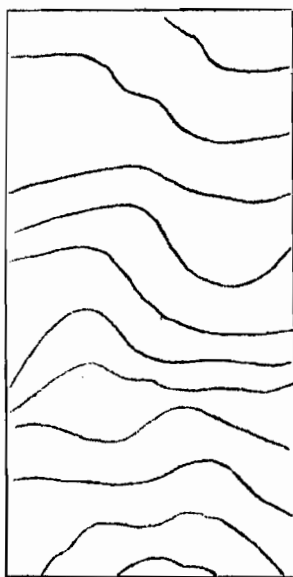
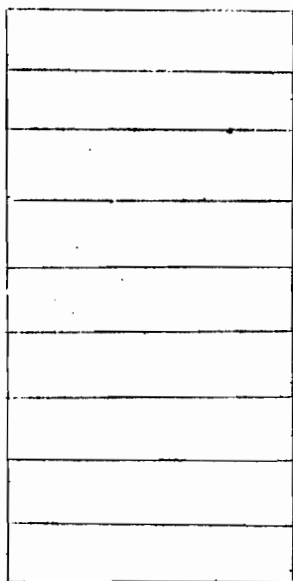
RI-SV-70-1

SAMPLE COSTS AND RETURNS

RICE FIELDS GRADE STAKED AND LEVELED

PARALLEL versus CONTOUR LEVEES

May 1970



UNIVERSITY OF CALIFORNIA
AGRICULTURAL EXTENSION SERVICE
BUTTE COUNTY

NUMBER OF CROP YEARS TO PAY COST OF LEVELING RICE LAND FOR STRAIGHT LEVEE CONSTRUCTION
FROM INCREASED PRODUCTION AND IMPROVED CULTURAL AND HARVEST EFFICIENCY
(One Acre Basis)

Crop Years	Cost of Leveling	Interest 7%*	Total Annual Cost	Accumulated Cost	Value			Net Annual Accumulated Cost
					Increased Production <u>1/</u>	Improved Cultural & Harvest Efficiency <u>2/</u>	Total	
1970	\$103.19	\$7.22	\$110.41	\$110.41	\$25.00	\$2.75	\$27.75	\$82.66
1971	--	5.79	5.79	88.45	25.00	2.75	27.75	60.70
1972	--	4.25	4.25	64.95	25.00	2.75	27.75	37.20
1973	--	2.60	2.60	39.80	25.00	2.75	27.75	12.05
1974	--	.84	.84	12.89	25.00	2.75	27.75	-14.86

1/ An increase in yield of 5 cwts. of dry rice at \$5 per cwt. expected from better water management.

2/ 12% less cultural and harvest costs (\$10.38 cultural + \$12.50 harvest x 12% = \$2.75) shown in "Sample Costs to Produce Rice--Butte County" April 1969.

* If the money is borrowed on today's market, a higher interest would be required.

Advantages: leveling to grade with parallel levees

1. Equipment Efficiency - Cultural Practices*
12-15% increase
Plow \$3.62
2X Disc 1.82
1.82
Float 1.30
Incorporate Fertilizer 1.82
Harvest* - Combine 12.50
12%** of \$22.88
\$2.75

*1969 Sample Costs of Rice Production - Butte County

**Actual grower experience

2. Water Management - faster initial flooding

Shallow depth - more critical water regulation

Yield advantage - A 5-year study conducted at the Biggs Rice Experiment Station reported an 8 cwt average yield increase due to shallow water management. For the purposes of this study we are assuming a 10% increase in yield over the county average of 50 cwt or 5 cwt due to leveling. At \$5/cwt, this would result in an additional \$25 income per acre.

3. Eliminate waste areas that should be in production by reducing the length of levees, and possibly reduce the number of levees.
4. Value of land increased
5. Eliminates skips and overlaps if fertilizer is applied by ground rig

Disadvantages:

1. Land nonproductive one year
2. Taxes increased

Notes: _____

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and growers and land leveling contractors operating in Butte County. Special appreciation is extended to Alvin and Louis Anderson and Donald Rystrom, Richvale, California.

70-acre Field
 3½-4 mile contour levees

Labor \$2.50/hr.

	Total Hours	Hours per Acre	Labor	Fuel & Repairs	Total Cost	Cost per Acre	Your Costs
<u>Spring</u>							
Remove established levee							
Dozer blade 95HP 3/4 mile/hr. of levee	4		\$10.00	19.00	29.00	.41	_____
Grader - motor (custom)	2				29.00	.41	_____
Work ground							
Plow or disc	35	.5	1.25	2.38	254.10	3.63	_____
Landplane 4X	70				950.00	13.57	_____
<u>Summer</u>							
Survey or Stake - 50' stations			<u>contract</u>				
Engineering Read stakes					13.50 (grower furnishes stakes)		
Prepare cut and fill map					15.00	1050.00	15.00
Mark stakes - cut-fill-o.k.							
Scrape - carry-all 135HP	200		16.50/hr.		3300.00	47.14	_____
Landplane (small) - 2X between stakes*							
(large) - 2X *							
Re-check stakes							
Scrape - touch-up							
Remove stakes and islands							
Landplane (large) 2X*	100				1485.00	21.21	_____
Chisel		.2	.50	1.32	127.40	1.82	_____
<u>Fall</u>							
Option #1 - land preparation - Grain							
or Option #2 - pull levee for rice							
<u>Spring</u>							
#1 - harvest grain, or #2 - plant rice							
<u>Summer</u>							
#1 - plow for levee							
<u>Fall</u>							
#1 - pull levee							
<u>Spring</u>							
#1 - prepare for rice							
					Total	\$103.19	_____

Post Office Building

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