

*As Read*

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# SUTTER'S GOLD

RICE — ITS ECONOMICS  
AND MARKETING

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# SUTTER'S GOLD

RICE - ECONOMICS - MARKETING

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OUR COUNTY'S KING CROP IS RICE--THE GOLDEN CROP OF SUTTER'S FIELDS. RICE GROWN ON 66,000 ACRES AND VALUED AT 13 MILLION DOLLARS IN 1952, IS BASIC TO OUR LOCAL ECONOMY. THINK FOR A MOMENT OF ALL THOSE WHO DEPEND AT LEAST IN PART ON THE REAPING OF THE RICE. YOU, THE FARMER, THE BUYER, THE MILLER. YOU, THE TRACTOR DEALER, THE FERTILIZER SALESMAN, AND THE AIRPLANE PILOT, AND YOU, THE GROCER, THE BARBER, THE CONSTRUCTION WORKER AND THE "COP". EVERYONE IN THIS AREA SHARES IN "SUTTER'S GOLD".

## LET'S RAISE RICE

LET'S RAISE RICE. WHAT WOULD YOU, AN AVERAGE FARMER, NEED TO GO INTO BUSINESS? FIRST WE SHOULD DECIDE ON:

### SIZE OF OPERATIONS

EXPERIENCE HAS SHOWN THAT THE MINIMUM SIZE OF OPERATIONS TO RETURN A SATISFACTORY LIVING IS 150 ACRES. THIS WILL VARY DEPENDING ON THE SOIL'S PRODUCTIVITY - THE PRICE LEVEL - AND THE MANAGEMENT ABILITY OF THE FARMER.

EXPERIENCE HAS ALSO SHOWN THAT BECAUSE OF THE AMOUNT OF MACHINERY NEEDED FOR RICE PRODUCTION, ONE MAN, WITH A MINIMUM OF HIRED HELP, CAN HANDLE 300 ACRES. THIS SAME MACHINERY WILL HANDLE UP TO 450 ACRES WITH A FEW MORE MEN. IT IS TO YOUR

ADVANTAGE TO FARM AS LARGE AN ACREAGE AS POSSIBLE TO REDUCE THE OVERHEAD PER ACRE. HERE WE ARE SPEAKING OF 300 ACRES IN RICE. THE FARMER WILL NEED OTHER LAND, TOO, FOR A PROPER CROP ROTATION PLAN.

USING SMALLER EQUIPMENT OR FEWER MACHINES IS NOT A GOOD IDEA BECAUSE JOBS CANNOT BE PERFORMED WHEN NEEDED, RESULTING IN LOWER YIELDS.

WHAT EQUIPMENT WOULD YOU NEED TO FARM 300 ACRES OF RICE? WELL, HERE'S HOW IT FIGURES.

TABLE I

EQUIPMENT AND LAND INVESTMENT FOR 300 ACRES OF RICE

EQUIPMENT	APPROXIMATE NEW COST
CRAWLER TRACTOR 60-70 DRAWBAR H.P.	\$ 10,000
CRAWLER TRACTOR 30-40 DRAWBAR H.P.	5,000
TRUCK, 1½ TON	3,000
PICK-UP	2,400
2 PLOWS 5-14"	2,000
DISK 20'	2,000
HARROW, SPIKE TOOTH 20'	200
FLOAT 12' x 30'	150
DOZER 6' BLADE	600
BANKOUT WAGON	1500-2000
2 SELF-PROPELLED HARVESTERS 14'	16,000
TOOLS AND SMALL EQUIPMENT	3,000
<b>TOTAL EQUIPMENT</b>	<b>\$46,350</b>
LAND 300 ACRES @ \$200	60,000
<b>TOTAL INVESTMENT LAND &amp; EQUIPMENT</b>	<b>\$106,350</b>

YOU MAY REDUCE INVESTMENT BY PURCHASING SECOND-HAND EQUIPMENT. GOOD SECOND-HAND EQUIPMENT IS OFTEN A BETTER BUY THAN NEW EQUIPMENT.

NOW, WHAT ABOUT THE COSTS OF PRODUCTION? THE TABLE ON PAGES 4 AND 5 SHOWS SAMPLE COSTS OF WHAT YOU CAN EXPECT. YOU MAY VARY FROM THESE SAMPLE COSTS, BUT REMEMBER WE HAVE INCLUDED ALL OF THE "HIDDEN" COSTS, AND YOU SHOULD TOO. "HIDDEN COSTS" WOULD INCLUDE EQUIPMENT DEPRECIATION, INTEREST ON INVESTMENT IN EQUIPMENT AND LAND, TAXES, THE OWNER'S OWN LABOR IS ALSO CHARGED FOR IN OUR SAMPLE COSTS. TO MAKE SAMPLE COSTS WE HAD TO ASSUME SEVERAL IMPORTANT FACTS:

1. THAT WE ARE FARMING 300 ACRES
2. THAT OUR YIELD IS 3500 POUNDS PER ACRE

### LEASING RICE LAND

BECAUSE OF THE HIGH INVESTMENT REQUIRED FOR EQUIPMENT, MANY PRODUCERS FIND IT PROFITABLE TO RENT RATHER THAN TO OWN RICE LAND. COMMON RENTALS VARY FROM ONE-FIFTH TO ONE-THIRD OF THE CROP. ON A ONE-THIRD RENT THE LANDLORD WOULD FURNISH THE WATER PLUS ONE-THIRD OF THE FERTILIZER AND SPRAY MATERIALS. THE LANDLORD ALSO PAYS THE DRYING ON HIS SHARE OF THE CROP. THERE ARE LOTS OF VARIATIONS FROM THIS DEPENDING ON WHAT THE LANDLORD FURNISHES. RICE LAND IS NOT USUALLY RENTED ON A CASH BASIS.

### MARKETING

CALIFORNIA RICE IS THE SHORT GRAIN JAPANESE TYPE. OUR PRINCIPAL VARIETIES, CALORO, COLUSA AND CALROSE FIND A LIMITED DOMESTIC MARKET. OUR BIG OUTLET IS OUR OVERSEAS TRADE--JAPAN AND THE FAR EAST--HAWAII AND PUERTO RICO AND CUBA.

*see yield*

SAMPLE COSTS FOR PRODUCING RICE

YIELD 3500 POUNDS DRY PADDY RICE PER ACRE

OPERATION, CREW & EQUIPMENT	HOURS PER ACRE	COST PER ACRE				CONTRACT OPERATION	TOTAL COST PER ACRE		
		LABOR	TRACTOR OR TRUCK	EQUIPMENT	MATERIAL				
					KIND	AMOUNT	VALUE		
PLANT COVER CROP: PLANE @ 75¢					VETCH	35 LBS.	2.10	.75	2.85
DISK: MAN, 65 HP TRACT. 20' DISK	.3	.36	.90	.24					1.50
PLOW: " " , 10-14" PLOW	.5	.60	1.50	.55					2.65
FLOAT (LAND PLANE) MAN, 65 HP TRACTOR, 12'x30' FLOAT	.2	.24	.60	.02					.86
SURVEY: CUSTOM @ 50¢								.50	.50
CHECK: 2 MEN, 2 TRACTORS, CHECKER	.3	.72	1.80	.35					2.87
DISK & HARROW: MAN, 65 HP TRACTOR, 20' DISK	.3	.36	.70	.30					1.56
FERTILIZE: PLANE @ 90¢ CWT.					NITROGEN	40 LBS.	6.75	1.80	8.55
FLOOD	.5	.50							.50
SEED: PLANE @ \$1 CWT.					SEED	150 LBS	12.00	1.50	13.50
IRRIGATE	2.0	2.00		1.00	WATER		10.00		13.00
SPRAY: PLANE @ 1.50 ACRE					2,4-D		3.00	1.50	4.50
DRAIN & OPEN CHECKS	.1	.10							.10
BIRD CONTROL		.60						PLANE .40	1.00
<b>TOTAL PREHARVEST</b>		<b>5.48</b>	<b>5.70</b>	<b>2.46</b>			<b>33.85</b>	<b>6.45</b>	<b>53.94</b>
COMBINE: 2 MEN, 2 SELF-PROPELLED COMBINES	.5	2.00		13.50					15.50
BANKOUT: MAN, TRACT. BANKOUT WAGON	.5	.20	1.50	.40					2.60
HALL TO MILL: MAN, 1 1/2 TON TRUCK	.5	.60	1.00						1.60
DRY						35 CWT. @ 35¢		12.25	12.25
STORAGE						3500 LBS @ 3.16 TON		5.53	5.53
<b>TOTAL HARVEST</b>		<b>3.30</b>	<b>2.50</b>	<b>13.90</b>				<b>17.78</b>	<b>37.48</b>
<b>TOTAL CULTURAL &amp; HARVEST</b>		<b>8.78</b>	<b>8.20</b>	<b>16.36</b>			<b>33.85</b>	<b>24.23</b>	<b>91.42</b>
TRACTOR AND EQUIPMENT COST INCLUDES CASH OPERATING EXPENSES PLUS INTEREST ON INVESTMENT.					TAXES			3.00	
CASH COSTS PER ACRE WILL AMOUNT TO \$70 TO \$80 LEAVING \$25 TO \$35 FOR OVERHEAD OF INTEREST AND DEPRECIATION.					INTEREST ON LAND: \$200 @ 5%			10.00	
					OTHER			3.00	
					TOTAL MISCELLANEOUS				16.00
					TOTAL COST PER ACRE				107.42
					COST PER CWT.				3.07

LET'S TAKE A LOOK AT SOME CALIFORNIA FIGURES:

TABLE II  
DATA ON AVERAGE YIELD AND PRICE

SUTTER COUNTY			CALIFORNIA	
	ACRES	YIELD	PRICE	ACRES
1943	41,817	3,400	\$ 3.40	224,000
1944	45,990	3,510	3.30	240,000
1945	46,176	3,550	3.18	235,000
1946	47,000	3,400	4.19	261,000
1947	45,000	3,300	6.00	256,000
1948	40,000	3,000	4.50	256,000
1949	58,000	3,500	3.40	305,000
1950	44,000	3,160	4.46	238,000
1951	62,000	3,250	4.70	314,000
1952	66,000	3,480	5.81	330,000

FINGER TIP FIGURES--

10 YEAR AVERAGE STATE YIELD	3100 POUNDS
10 YEAR AVERAGE STATE PRODUCTION	8,961,000 CWT.
10 YEAR AVERAGE U. S. PRODUCTION	39,288,000 CWT.
10 YEAR AVERAGE CALIFORNIA ACREAGE	284,200

RICE IS SOLD BY THE FARMER GENERALLY IN ONE OF TWO METHODS. FIRST, HE BELONGS TO A COOPERATIVE WHICH OFTEN TAKES CARE OF THE DRYING AND STORAGE FOR HIM. THE COOPERATIVE THEN SELLS THE RICE TO THE MILLER, OR PERHAPS THEY EVEN DO THE MILLING THEMSELVES.

THE SECOND METHOD IS A SALE THROUGH A BROKER TO THE MILL, OR EVEN DIRECTLY TO THE MILL. THE CONTRACT CAN BE MADE BEFORE HARVEST OR AFTER THE CROP IS IN.

PRICES PAID FOR CALROSE, A MEDIUM GRAIN RICE, ARE GENERALLY SLIGHTLY HIGHER THAN THE PRICE ON CALORO OR GOLUSA (1600), WHICH ARE SHORT GRAIN.

### WORLD OUTLOOK

CALIFORNIA'S RICE IS SOLD LARGELY THROUGH EXPORT TO RICE CONSUMING AREAS OF THE WORLD. OUR EFFICIENCY OF PRODUCTION AND HIGH YIELDS ALLOW US TO COMPETE IN THIS WORLD MARKET. IN TURN, OUR PRICE MUST NOT BE KEPT ARTIFICIALLY ABOVE THE WORLD MARKET LEVEL IF WE ARE TO COMPETE SUCCESSFULLY.

THE "WORLD'S RICE BANK" OF SOUTHEAST ASIA IS GETTING BACK ON ITS FEET AFTER THE LAST WAR. BURMA AND THAILAND ARE ONCE AGAIN ABLE TO EXPORT RICE; HOWEVER, NOT ON THE SAME SCALE AS BEFORE THE WAR.

RICE IS BECOMING MORE IMPORTANT AS AN EXPORT CROP IN SOUTH AMERICA.

DESPITE RISING PRODUCTION THERE IS STILL A WORLD DEFICIT IN RICE. RICE, THE STAPLE FOOD OF MILLIONS OF ASIANS, HAS HISTORICALLY BEEN IN SHORT SUPPLY. THE OUTLOOK FOR CONTINUED HIGH PRODUCTION IS GOOD.

HISTORICALLY, RICE PRODUCTION BEGAN IN CALIFORNIA IN 1912. PRODUCTION HAS BEEN CENTERED IN 5 COUNTIES ALONG THE SACRAMENTO RIVER--SUTTER, BUTTE, COLUSA, GLENN AND YOLO. PRODUCTION HAS INCREASED TO FOUR TIMES ITS PREWAR LEVEL, AND CALIFORNIA NOW PRODUCES 20-25% OF THE NATION'S RICE. CALIFORNIA'S RICE AREA HAS EXPANDED TO INCLUDE THE NORTHERN SAN JOAQUIN VALLEY. IN 1949 TWENTY COUNTIES REPORTED RICE ACREAGE, FROM GLENN ON THE NORTH TO IMPERIAL IN THE SOUTH.

IN THE UNITED STATES, TEXAS, LOUISIANA, ARKANSAS, AND CALIFORNIA NOW ACCOUNT FOR MOST ALL OF THE PRODUCTION. RICE WAS FIRST INTRODUCED IN VIRGINIA IN ABOUT 1647. THE FIRST COMMERCIAL PLANTING WAS IN SOUTH CAROLINA IN 1685. AFTER THE CIVIL WAR, THE PRODUCTION CENTER MOVED TO LOUISIANA, TEXAS AND ARKANSAS.

FOR FURTHER READING

RICE PRODUCTION IN CALIFORNIA - LOREN DAVIS  
CALIF. AGR. EXT. BUL. 163 1949

RICE MARKET REVIEW - FEDERAL STATE MARKET  
NEWS SERVICE - SAN FRANCISCO

RICE FERTILIZATION IN SUTTER COUNTY - R. C.  
PEARL AND J. H. LINDT - AGR. EXT. SERVICE 1953

THE RICE JOURNAL - 806 PERDIDA ST. NEW ORLEANS,  
LOUISIANA