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CLING PEACHES

IN SUTTER COUNTY

SAMPLE INVESTMENT AND PRODUCTION COSTS

UNIVERSITY OF CALIFORNIA

AGRICULTURAL EXTENSION SERVICE

YUBA CITY

POST OFFICE BUILDING

CALIFORNIA

INITIAL INVESTMENT AND PRODUCTION COSTS OF GROWING CLING PEACHES ARE INCREASING EACH YEAR. THIS PUBLICATION CONTAINS INFORMATION CONCERNING THE ECONOMICS OF CLING PEACHES WRITTEN FOR THE NOVICE GROWER. PROSPECTIVE PEACH PRODUCERS MAY WISH TO CONSIDER THESE DATA BEFORE ARRIVING AT A DECISION.

UC Cooperative Extension

CLING PEACHES

IN SUTTER COUNTY SAMPLE INVESTMENT AND PRODUCTION COSTS

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SUTTER COUNTY IS ONE OF THE MOST IMPORTANT CLING PEACH PRODUCING AREAS OF THE STATE, WITH OVER 13,000 BEARING ACRES. TOTAL ACREAGE IS STILL INCREASING SLOWLY, BUT IS LIMITED BY THE AMOUNT OF LAND ADAPTED TO GROWING PEACHES AND BY OTHER CROPS COMPETING FOR THESE BETTER LANDS. PRODUCTION TRENDS HAVE BEEN UPWARD FOR MANY YEARS, DESPITE THE VARIATION IN YIELD FROM YEAR TO YEAR.

GOOD PEACH LAND

MAXIMUM PEACH PRODUCTION REQUIRES A RATHER DEEP, FERTILE, WELL-DRAINED SOIL. THE SOIL SHOULD BE AT LEAST FOUR FEET DEEP AND FREE FROM ALKALI. MANY OF OUR SUTTER COUNTY SOILS ARE WELL SUITED TO PEACH PRODUCTION, AND ORCHARDS PLANTED ON SOIL WHICH MEETS THESE REQUIREMENTS SELDOM PROVE UNSATISFACTORY. ON THE OTHER HAND, THERE ARE MANY AREAS NOT ADAPTED TO PEACH GROWING. BUYERS SHOULD BE WARY OF HEAVY, POORLY DRAINED SOILS, SOILS UNDERLAIN WITH HARDPAN NEAR THE SURFACE, AND LAND WITH WELLS HIGH IN SALT CONTENT.

SIZE OF UNIT

EXPERIENCE HAS INDICATED THAT AN ORCHARD OF 20 ACRES IS NECESSARY IN ORDER TO RETURN A SATISFACTORY LIVING. ONE PERSON CAN HANDLE AN ORCHARD OF THIS SIZE EXCEPT FOR THINNING, HARVESTING AND PERHAPS PRUNING.

SHOULD WE PLANT OR BUY?

THE COSTS INVOLVED IN DEVELOPING A NEW PEACH ORCHARD ARE ABOUT AS FOLLOWS:

	<u>COST PER ACRE</u>
LAND	\$500
IRRIGATION FACILITIES	100
PLANTING AND GROWING TREES	500
TOTAL	<u>\$1100</u>

THESE COSTS ARE ACCUMULATIVE OVER A FOUR TO FIVE YEAR PERIOD BECAUSE PEACH TREES ARE THAT OLD BEFORE THEY PRODUCE A SELF-SUSTAINING CROP. IT IS ANOTHER THREE TO FOUR YEARS BEFORE THEY REACH MAXIMUM PRODUCTION.

PRODUCING ORCHARDS HAVE BEEN SELLING FROM \$1000 TO \$1400 AN ACRE DEPENDING ON THEIR LOCATION, YIELD, SIZE, AND AGE. AS A RULE ORCHARDS SELLING NEAR THE LOWER FIGURE ARE THE POORER ORCHARDS, EITHER LOW PRODUCERS GROWING UNDER ADVERSE CONDITIONS, OR OLD ORCHARDS. THE ASKING PRICE OF SOME OF THE BETTER ORCHARDS IS OFTEN IN EXCESS OF THE \$1400 FIGURE. AN EXISTING ORCHARD MAY COST SLIGHTLY MORE PER ACRE THAN THE DEVELOPMENT COSTS OF A NEW ORCHARD, BUT IT WILL PRODUCE AN INCOME THE FIRST YEAR COMPARED TO 4 TO 5 YEARS FOR THE NEW ORCHARD.

INVESTMENT REQUIRED

THE INVESTMENT AND EQUIPMENT CAN VARY CONSIDERABLY, DEPENDING ON SIZE AND TYPE OF MACHINES PURCHASED.

TABLE -1 SHOWS THE TYPICAL INVESTMENT REQUIRED FOR STARTING A 20 ACRE PEACH ORCHARD.

TABLE I
INVESTMENT REQUIRED
 FOR 20-ACRE ORCHARD

APPROXIMATE COST NEW

MACHINERY AND EQUIPMENT			
TRACTOR 30 HP CRAWLER		\$ 5000	250
BUCK OR BRUSH SLED		100	
DISK 9'9"		800	
RIDGER		225	
FLOAT		150	
TRAILER		250	
PROPS		250	
PRUNING EQUIPMENT		30	
HARVEST EQUIPMENT		60	
MISCELLANEOUS		635	
TOTAL MACHINERY & EQUIPMENT		\$ 7500	375
BUILDINGS - NOT INCLUDING DWELLING		5000	
TREES 20 ACRES @ \$500		10,000	500
IRRIGATION SYSTEM		2,000	100
LAND 20 ACRES @ \$500		10,000	500
TOTAL INVESTMENT		34,500	
PER ACRE		1,725	

YOUR ORIGINAL INVESTMENT MAY BE REDUCED IN SEVERAL WAYS. ONE METHOD WOULD BE BY PURCHASING RELIABLE SECOND-HAND EQUIPMENT WHICH IS OFTEN A BETTER BUY THAN NEW EQUIPMENT.

IT WILL BE NOTED THAT A SPRAYER HAS NOT BEEN INCLUDED IN THE EQUIPMENT COSTS AS IT IS USUALLY CHEAPER FOR THE SMALL ORCHARDIST TO HAVE HIS SPRAYING OPERATIONS DONE BY A CONTRACT SPRAYER. ORCHARD DISKING CAN ALSO BE DONE CHEAPER BY CONTRACT. A SMALLER WHEEL TRACTOR MAY THEN BE SUFFICIENT FOR THE OTHER ORCHARD OPERATIONS. WITH AN ADDITIONAL INVESTMENT FOR SPRAY EQUIPMENT, THIS SAME MACHINERY COULD HANDLE UP TO 50 ACRES OR MORE VERY EASILY.

TABLE 11

YIELD 12 TONS PER ACRE

SAMPLE COSTS TO PRODUCE CLING PEACHES

LABOR @ \$1-1.25 PER HOUR
TRACTOR - 30 HP @ \$2.50 PER HR.

OPERATION, CREW, AND EQUIPMENT	HOURS	LABOR	TRACTOR OR TRUCK	EQUIP- MENT	COST PER ACRE		TOTAL COST PER ACRE
					MATERIAL KIND	VALUE	
CULTURAL COSTS:							
PRUNE: 109 TREES @ 50¢	50.0	\$54.50					\$ 54.50
BRUSH DISPOSAL: MAN, TRACTOR, BUCK	1.5	1.88	\$ 3.75	\$.15			5.78
PLANT COVER CROP: MAN, TRACTOR, BROADCASTER, ROLLER	.2	.25	.50	.05	SEED	\$ 4.00	4.80
SPRAY: 3 TIMES CONTRACT @ 1½¢ PER GALLON					1200 GALS.	24.00 ^x	
					APPLICATION	18.00	42.00
FERTILIZE: MAN, TRACTOR, BROADCASTER	.2	.25	.50	.05	NITROGEN 100 LB	15.00	15.80 ^x
DISK: 8 TIMES, MAN, TRACTOR, DISK	8.0	10.00	20.00	.60			30.60
IRRIGATION PREPARATION: 2 TIMES, MAN, TRACTOR, RIDGER	2.0	2.50	5.00	.40			7.90
IRRIGATE: 6 TIMES	18.0	18.00		7.00	POWER FOR 3A.FT	6.00	31.00 [✓]
KNOCK CHECKS: MAN, TRACTOR, RIDGER	1.0	1.25	2.50	.20			3.95
THIN: 109 TREES @ \$1		109.00					109.00
WIRE OR PROP	6.0	6.00			WIRE OR PROP	4.00	10.00
MISCELLANEOUS		4.00	2.00				6.00
TOTAL CULTURAL COST		207.63	34.25	8.45		71.00	321.33
HARVEST COSTS:							
PICK: 12 TONS @ 14¢ PER 40 LB. BOX		84.00					84.00
HAUL OUT AND PLACE BOXES: 2 MEN, TRACTOR	10.0	25.00	10.00	1.00			36.00
MISCELLANEOUS		4.00	2.00				6.00
TOTAL HARVEST COST		113.00	12.00	1.00			126.00
TOTAL COST		320.63	46.25	9.45		71.00	447.33

MISCELLANEOUS COSTS

TAXES	4.00
DEPRECIATION ON TREES - \$500 FOR 15 YEARS	33.33
INTEREST - TREES - \$250 @ 5%	12.50
LAND \$500 @ 5%	25.00
OTHER	10.00
TOTAL MISCELLANEOUS	84.83

TOTAL COST PER ACRE 532.16
COST PER TON 44.35

PRODUCTION COSTS

IN DEVELOPING THE COST FIGURES FOR TABLE II IT WAS ASSUMED THAT YIELD FROM THE ORCHARD WAS 12 TONS PER ACRE. IN PRACTICE YOU MAY VARY YOUR CULTURAL OPERATIONS RESULTING IN MUCH HIGHER OR MUCH LOWER COSTS PER ACRE. THE FIGURES ON PAGES 4 AND 5 REPRESENT ONLY A TYPICAL COST FOR PRODUCING PEACHES ON 20 ACRES. IT MUST BE REMEMBERED THAT WE HAVE INCLUDED THE "HIDDEN COSTS" OF DEPRECIATION, INTEREST, TAXES, AND THE OWNER'S LABOR. PRODUCTION COSTS ON LARGER ACREAGES ARE USUALLY CONSIDERABLY LOWER PER ACRE.

MARKETING

CLING PEACH SALES ARE SUBJECT TO THE "MARKETING ORDER FOR CANNING AND FREEZING CLING PEACHES" ADMINISTERED BY THE DIRECTOR OF THE STATE DEPARTMENT OF AGRICULTURE. THE "CLING PEACH ADVISORY BOARD", CONSISTING OF PRODUCERS AND PROCESSORS, HAS BEEN ESTABLISHED TO ASSIST IN THE ADMINISTRATION OF THIS MARKETING ORDER.

RULES AND REGULATIONS UNDER THE MARKETING ORDER CHANGE FROM TIME TO TIME, BUT IN GENERAL COVER SIZE AND GRADE REQUIREMENTS FOR FRUIT DELIVERED TO PROCESSORS, SURPLUS ELIMINATION PROGRAMS, ADVERTISING, AND RESEARCH.

OUTLOOK

AT THE PRESENT TIME CLING PEACH PRODUCTION IS RUNNING IN EXCESS OF MARKET DEMANDS. PRODUCTION IS APPROXIMATELY 550,000 TONS PER YEAR WITH APPARENT DEMAND FOR ONLY 500,000 TONS. FOR THIS REASON CLING PEACH GROWERS HAVE BEEN WORKING UNDER MARKETING AGREEMENTS FOR A NUMBER OF YEARS. IN VIEW OF THESE CONDITIONS, IT WOULD SEEM ADVISABLE THAT FUTURE PEACH PLANTINGS BE LIMITED TO THE BETTER PEACH SOILS OF THE COUNTY.

CULTURAL POINTERS

FERTILIZATION PEACHES REQUIRE AN ANNUAL APPLICATION OF FERTILIZER FOR CONTINUED HIGH PRODUCTION. ORCHARDS HAVE SHOWN RESPONSES TO THE APPLICATION OF NITROGEN ONLY. IN JANUARY OR EARLY FEBRUARY, 75 TO 100 POUNDS OF ACTUAL NITROGEN PER ACRE SHOULD BE ADDED. THIS MAY BE SUPPLIED BY SUCH MATERIALS AS AMMONIUM SULFATE, AMMONIUM NITRATE OR CALCIUM NITRATE. HOWEVER, MANY GROWERS PREFER AMMONIUM SULFATE BECAUSE OF ITS ACID REACTION. THE GENERAL TREND IS TO INCREASE, WITH PROFIT, THE AMOUNT OF NITROGEN APPLIED.

PEST AND DISEASE CONTROL A MINIMUM OF TWO SPRAYS A YEAR IS REQUIRED FOR GROWING PEACHES; HOWEVER, MOST GROWERS WILL APPLY THREE OR MORE. OF THE IMPORTANT INSECTS AND DISEASES, ONLY PEACH BLIGHT, PEACH LEAF CURL, MILDEW, TWIG BORER AND MITES HAVE TO BE TAKEN CARE OF EACH YEAR. OCCASIONALLY BROWN ROT, SAN JOSE SCALE, AND LITTLE LEAF BECOME A PROBLEM.

BUYERS SHOULD EXAMINE ESTABLISHED ORCHARDS CLOSELY FOR OAK ROOT FUNGUS, COLLAR ROT, AND CROWN GALL. SOIL TREATMENT FOR OAK ROOT FUNGUS CONTROL IS COSTLY BUT GIVES SATISFACTORY CONTROL IN MOST INSTANCES.

IRRIGATION FIVE TO SEVEN IRRIGATIONS ARE REQUIRED DURING THE GROWING SEASON FOR MAXIMUM PRODUCTION. THE SOIL SHOULD BE WET THROUGHOUT THE ROOT ZONE WITH EACH IRRIGATION. WATER MUST BE APPLIED AT INTERVALS DURING THE GROWING SEASON WITH ONE APPLICATION JUST PRIOR TO HARVEST. MOST VARIETIES ALSO REQUIRE A POST-HARVEST APPLICATION. THERE IS A TENDENCY AMONG SOME GROWERS TO OVER-IRRIGATE THEIR TREES PRIOR TO HARVEST.

THINNING PEACH TREES NORMALLY SET MUCH HEAVIER CROPS THAN THEY CAN SIZE. FOR THIS REASON A PORTION OF THE CROP MUST BE HAND-THINNED. VARIETIES ARE USUALLY THINNED WITH REFERENCE TO THE TIME THEY MATURE. CHEMICAL THINNING IS SHOWING PROMISE OF REDUCING THE COST OF THINNING, BUT IS ONLY ADAPTED TO CERTAIN VARIETIES.

VARIETIES IN SMALL ORCHARDS ONLY TWO OR THREE VARIETIES SHOULD BE SELECTED. MANY BLOCKS OF THREE OR FOUR ACRES MAY BE A HARDSHIP TO THE SMALL ORCHARDIST, WITH EACH BLOCK NOT RECEIVING THE NECESSARY ATTENTION FOR HIGHEST PRODUCTION. IN LARGER PLANTINGS, HOWEVER, VARIETIES SHOULD BE CHOSEN WHICH HAVE CONSECUTIVE HARVESTING PERIODS EXTENDING OVER A CONSIDERABLE PART OF THE SEASON. GROWERS MAY FIND IT TO THEIR ADVANTAGE TO GIVE CONSIDERATION TO THE EXTRA EARLY AND EARLY MIDSUMMER VARIETIES OF PEACHES IN FUTURE PLANTINGS.

PRUNING YEARLY TRAINING AND PRUNING IS NECESSARY TO PRODUCE A VIGOROUS, STRONG, HEALTHY TREE CAPABLE OF PRODUCING HEAVY CROPS OVER A LONG PERIOD OF YEARS. IN BEARING TREES, THE TOTAL AMOUNT OF NEW GROWTH THAT THE TREE MAKES WILL BE THE BEST BASIS FOR JUDGING WHETHER OR NOT THE PRUNING HAS BEEN OF THE PROPER SEVERITY. IF THE NEW GROWTH IS LONGER THAN DESIRABLE, THE PREVIOUS PRUNING WAS PROBABLY TOO SEVERE. IF THE NEW GROWTH WAS INADEQUATE, THE CUTTING WAS TOO LIGHT AND A HEAVIER PRUNING PROGRAM SHOULD BE ADOPTED. THE PEACH BEARS MOST OF ITS CROP ON THE ONE YEAR WOOD, AND FRUITFULNESS IS ASSOCIATED WITH A RELATIVELY GREATER AMOUNT OF NEW GROWTH THAN SEEMS NECESSARY WITH OTHER FRUIT TREES.

FOR FURTHER READING

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|---|--------------------------------|
| <u>PEACH AND NECTARINE GROWING</u>
<u>IN CALIFORNIA</u>
CAL. AGR. EXT. CIR. 98 - 1946 | G. L. PHILP
AND L. D. DAVIS |
| <u>SUTTER CANNING PEACH MANAGE-</u>
<u>MENT STUDY - 1950</u>
AGR. EXT. SERVICE 1950 | R. H. KLAMT |
| <u>FACTS ABOUT THE PEACH TWIG</u>
<u>BORER</u>
AGR. EXT. SERVICE 1953 | F. H. PETERSEN |
| <u>SUTTER COUNTY PEACH SPRAY</u>
<u>PROGRAM 1954</u>
AGR. EXT. SERVICE | F. H. PETERSEN |

TABLE III

DATA ON ACREAGE, YIELD AND PRICE

	SUTTER COUNTY			CALIFORNIA	
	ACRES	YIELD TONS	PRICE	ACRES	YIELD TONS
1943	10,720	10.7	\$63.91	41,853	8.4
1944	12,000	10.4	65.00	44,385	11.1
1945	11,908	11.3	62.00	45,995	10.1
1946	13,364	12.2	62.50	47,914	11.6
1947	13,914	10.8	50.50	48,235	10.6
1948	14,687	10.5	62.52	51,015	9.8
1949	11,219	13.4	40.00	47,209	12.2
1950	11,261	12.5	60.00	44,059	10.7
1951	12,387	14.9	77.50	46,025	12.8
1952	13,096	11.6	65.00	46,685	9.8
10 YEAR AVER.		11.8			10.7

FURTHER ASSISTANCE CAN BE OBTAINED FROM YOUR LOCAL FARM ADVISOR'S OFFICE. HE REPRESENTS THE UNIVERSITY OF CALIFORNIA AND WILL BE GLAD TO FILL IN ANY DETAILS CONCERNING THE PRODUCTION OF CLING PEACHES OR OTHER AGRICULTURAL ENTERPRISES IN WHICH YOU ARE INTERESTED.

THE SUTTER COUNTY FARM ADVISOR'S OFFICE IS LOCATED IN THE BASEMENT OF THE YUBA CITY POST OFFICE BUILDING. PHONE 3-5457

100 COPIES

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UC Cooperative Extension