



MAY 1 1964

COSTS
IN
RAISING CLING PEACHES

IN
THE PEACH BOWL
BUTTE-SUTTER-YUBA COUNTIES

Butte County
Post Office Building
P. O. Box 991
Oroville, California

Sutter County
1230 Bridge Street
P. O. Box 628
Yuba City, California

Yuba County
Federal Building
P. O. Box 910
Marysville, California

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Acknowledgment

We wish to thank all the growers who helped
make this study possible for their cooperation in
developing the figures for the preparation of this
cost data.

CALENDAR OF OPERATIONS AND FACTS ON PEACH PRODUCTION

This peach study is a compilation of figures on production costs developed with growers located in the "Peach Bowl" of Butte, Sutter and Yuba Counties. Costs are based on an operation of 100 acres of cling peaches, with 75 acres in bearing. The yield figure in the study is based on above-average tonnage of 15 tons per acre following a 15% "green drop."

Land used for peach growing should be well drained loam or clay loam soil of the Gridley, Wyman, or Columbia series. Land value here is based on recent sales of the best peach growing land in the Yuba City-Gridley area. Orchard planting normally used is a 20' x 20' tree spacing or 109 trees per acre and the tree cost per acre in this study is based on 15 years bearing life with 4 years required to begin bearing.

Cultural practices in peach production include: (1) spraying for insect and disease control, (2) fertilization, (3) cultivation for weed control and irrigation preparation, (4) irrigating, (5) thinning, (6) pruning, (7) cover crop planting, (8) harvesting.

The cultural season for cling peaches is assumed to start in the fall of the year following sufficient rainfall to allow spray application of chemicals for control of leaf curl, peach blight and overwintering insects.

Pruning of peach orchards begins as soon as leaves have fallen and continues until bloom. Small brush is chopped up by use of a rotary chopper and is incorporated into the soil through disking. Large brush is removed manually.

Nitrogen fertilizer is applied during the winter or early spring, and again in the late spring with an "easy flow" spreader pulled by a wheel tractor.

During bloom in March a fungicide spray is applied if rain is prevalent. During the period following bloom, if weather becomes cold, ridges are put up and an irrigation is applied if and when frost danger occurs. (This irrigation is not included in the study.)

May is a busy month in peach orchards. Oriental fruit moth and peach twig borer plus other insects and mildew are controlled by a spray at this time. Fruit thinning also begins in mid-May during pit hardening, and thinning should be accomplished as rapidly as possible to remove competing fruit from trees. Thinning cost per tree in this study is based on \$1.25 per tree including the cost of "green dropping." "Green drop" is a surplus fruit elimination program utilized by the peach industry during surplus years under a cling peach marketing order.

Upon completion of thinning, the orchard is usually ridged and irrigated. Peaches normally receive 5-7 irrigations per season, not including the "frost irrigation." Number of irrigations depends largely on weather, soil type, and variety. A ridger is used to prepare ridges for contour flood irrigation, and approximately six acre-inches of water per acre is applied per irrigation.

The orchard is disked for weed control, as it becomes necessary, with use of a track layer engine or diesel wheel tractor pulling usually a 10-foot disk.

Orchards are wired several times during their life to prevent limb breakage from weight of fruit. In this study the annual wiring cost is based on 3 wirings over a ten-year period, taking 10 man hours per acre per wiring, with materials based on .06 per tree per wiring for wire. Props are also used late in the season for limb support.

A second light thinning of fruit may be necessary in years of heavy crops and small fruit. This may be accomplished in June or July with poles or by hand. Minimum size requirements for canning cling peaches is 2-3/8 inches in diameter.

Spraying or dusting may be necessary in late summer for worms or red spider or brown rot threat in case of rain.

Peaches are a perishable commodity, and it is necessary to harvest the fruit within a 5-8 day period after picking commences, depending on weather. If ripening of the fruit is prolonged, or if fruit sizing is a problem, a second picking of a variety may be necessary. Fruit is hand picked into picking bags and dumped into 40-pound lug boxes, 800 1,000-pound bins, or 4,000-pound gondolas. These are on pallet wagons, and are pulled by a wheel tractor to a central grading station where peaches are graded and sized, followed by a state inspection for off-grade fruit percentage. Fruit may or may not be hydrocooled before shipment by truck to cannery. Fork lifts on wheel tractors handle bins in the fields when necessary. Mechanical harvesting is being considered by growers. This would involve a large investment for harvesting equipment but would provide potential cost savings on the harvesting operation.

ACREAGE FIGURES - 1962

	<u>Bearing acres</u>	<u>Non-bearing acres</u>
SUTTER	12,150	3,500
YUBA	5,349	2,507
BUTTE	3,270	1,338

Operation	Man Hours Per Acre	Labor	Cash and Labor Cost Per Acre		
			Fuel & Repairs	Materials	Total
<u>CULTURAL</u>					
<u>SEED COVER CROP</u>	.2	.66	.48	2.80	3.94
<u>PRUNING</u>					
Prune 109 trees @60¢	.	65.40			65.40
Brush removal (chop)	1.0	1.65	1.35		3.00
Remove heavy brush	1.0	1.65	1.10		2.75
Wire	3.3	4.29		1.96	6.25
<u>SPRAYING</u>					
Fall - 2 men	.5	1.47	3.25	13.36	18.08
Petal Fall - 2 men	.5	1.47	3.25	15.52	20.24
May - 2 men	.5	1.47	3.25	3.84	8.56
Summer - 2 men	.5	1.47	3.25	19.42	24.14
<u>FERTILIZING</u> 2 times	.8	1.04	.96	18.00	20.00
			(150# N @ 12¢)		71.02
<u>THINNING</u> 109 trees		136.25			136.25
<u>CULTIVATION</u>					
Disk and cultipacker (3 times, 2 ways)	3.0	4.95	5.70		10.65
<u>IRRIGATION</u>					
Ridge up (3 times)	.8	1.32	1.36		2.68
Knock ridges (3 times)	.4	.52	.50		1.02
Irrigate (6 times)	12.0	15.60	9.72 (inc. standby)		25.32
<u>TOTAL CULTURAL</u>		\$239.21	\$34.17	\$74.90	\$348.28

Labor Rates

Skilled Labor --- \$1.65 per hour

General Labor --- \$1.30 per hour

Operation	Man Hours per Acre	Labor	Cash and Labor Cost Per Acre		
			Fuel & Repairs	Materials	Total
<u>HARVEST</u>					
Put out bins and pick 15 tons @ \$4.25 per bin		\$127.50			\$127.50
Swamping and hauling bins in and out		9.25	7.05 (trac. and wagon)		16.30
Supervision	3.0	10.00			10.00
Marketing order charges \$2 ton @ 15 tons				30.00	30.00
<u>TOTAL HARVEST</u>		\$146.75	\$7.05	\$30.00	\$183.80
<u>TOTAL CULTURAL AND HARVEST COSTS</u>					<u>\$532.08</u>
<u>MISCELLANEOUS OVERHEAD</u>					
Office, labor, etc.-5% of above					26.60
Management - 5% of gross (15 tons @ \$60)					45.00
Total Miscellaneous Overhead					<u>\$71.60</u>
TOTAL CASH AND LABOR COST					<u>\$603.68</u>

Investment	Per Acre	Depreciation	Annual Fixed Cost	
			Interest	Taxes & Insurance
Land	\$1200.00	— 6%	\$ 72.00	\$15.00
Trees	600.00	\$40.00	18.00	9.00
Irrigation System	110.00	5.50	3.30	1.65
Buildings	75.00	3.00	2.25	1.13
Tractor & Equipment	<u>387.00</u>	<u>31.83</u>	<u>11.62</u>	<u>5.81</u>
Totals	\$2372.00	\$80.33	\$107.17	\$32.59

Total Annual Fixed Costs ---- \$220.09

Total Cost Per Acre - \$823.77
(including interest on investment)

Cost Per Ton - \$54.90

Total Cost Per Acre - \$716.60
(not including interest on investment)

Cost Per Ton - \$47.77

INVESTMENT FOR CLING PEACHES PRODUCTION IN BUTTE, SUTTER & YUBA COUNTIES - 1963

Based on 100 Acres Cling Peaches, 75 Acres in Bearing

University Cooperative Extension

Item	Year Bought	Orig. Cost		Yrs. Life	Annual Use		Non-Cash Overhead			Cash Operating Cost per Acre or Hour			
		Total	Per Acre		Acres	Hours	Deprec.	Int.	Total	Per A. or Hr.	Fuel	Repairs	Total
Tracklayer 40 H.P.		\$11,500	115	15	100		6.50	3.45					1.40
Wheel tractor 30 H.P. gas		3,600	36	15	"		2.40	1.08					1.10
Speed sprayer 500 gallon		5,500	55	10	"		5.50	1.65					3.50
Disk 10' 6"		1,400	14	10	"		1.40	.42					.30
Cultipacker		400	4	10	"		.40	.12					.20
Ridger		800	8	10	"		.80	.24					.30
Check breaker		200	2	10	"		.20	.06					
Brush chopper		1,000	10	10	"		1.00	.30					.25
Spring tooth		.350	3.50	10	"		.35	.11					
Truck 1½ Ton		3,300	33	10	"		3.30	.99					1.80
Pickup truck ¾ Ton		2,500	25	10	"		2.50	.75					
600 gal. water tank		150	1.50	10	"		.15	.05					
Pallet wagons - 2		1,000	10	10	"		1.00	.30					
Forklift and used tractor		2,000	20	10	"		2.00	.60					1.10
Drag		500	5	10	"		.50	.15					
Ladders 40 @ \$12.50		500	5	10	"		.50	.15					
Shop equipment		2,000	20	15	"		1.33	.60					
Props		1,000	10.00	10	"		1.00	.30					
Miscellaneous		1,000	10.00	10	"		1.00	.30					
			387.00				31.83	11.62					
Labor and storage building		7,500	75.00	25	"		3.00	2.25					
Trees			600.00	15			40.00	18.00					
Irrigation system		11,000	110.00	20			5.50	3.30					
Land			1200.00	-			-	72.00					

Total

\$2372.00

\$80.33 \$107.17