



*Sample Costs to
Establish and Produce*
WINE GRAPES
*in the
North Coast Counties*

1980

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This publication shows sample costs to establish a vineyard, to produce cane-pruned, trellised wine grapes with sprinkler protection, and to produce older, head-trained wine grapes. The costs in this study are based on current dollars -- no inflationary factors over the three year establishment period have been considered. The data were collected in Mendocino, Napa, and Sonoma Counties for cane-pruned varieties such as Cabernet Sauvignon, White Riesling, Pinot noir, and Chardonnay, and head-trained varieties such as Carignane, Zinfandel, and Petite Sirah.

Costs have been calculated on the basis of a 40 acre parcel with vines planted at 8 x 12 foot spacings, giving a net of 413 vines per acre after allowing for avenues and turning space. Labor costs have been calculated at \$5.25 and \$6.25 per hour, including fringe benefits. Investments are based on current replacement costs. Some growers may reduce their investment by buying used equipment.

Land Investment: The land value of \$6,000 per acre used in this study represents the typical current market price for bare vineyard land in these three counties. In reality, land prices range from \$4,000 per acre in Mendocino County to \$12,000 in Napa County.

Site Conversion: Very little open land is available, so most vineyards are planted on old orchard or vineyard sites. The old trees or vines must be removed, the soil ripped, and the land rough-leveled and fumigated.

Yield: Yields of 4 tons per acre are above average for the area, but are below that attained in some vineyards. These figures are typical of an attainable annual average yield for better vineyards planted with certified stock and cared for in accordance with the cultural practices recommended in the cost tables.

Fencing: Temporary fencing for protection from rabbits may be needed for the first 2 or 3 years of the vineyard. In some locations, permanent fencing may be necessary for protection from deer and should be built when

the vineyard is planted. Permanent fencing costs for deer and rabbit control will vary considerably with the individual situation. Growers have reported costs of \$4.00 to \$5.00 per foot of installed fence, and costs of \$40 to \$60 per acre for annual overhead and maintenance.

Soil Requirements: Grapes grow fairly well in many different soils. Deeper and more fertile soils usually produce the heaviest crops but some varieties reach higher quality on soils of limited depth. Very heavy clays, very shallow soils, poorly drained soils, and soils with relatively high concentrations of alkali salts, boron, and other toxic materials should be avoided.

Frost Protection: All areas except those with excellent air drainage will require frost protection. Such protection can be provided by heaters, wind machines, or sprinklers. Costs have been calculated using sprinkler protection. See the University of California's Division of Agricultural Sciences Leaflet 2743, Frost Protection for North Coast Vineyards.

Rootstocks and Scion Wood: Only rootings should be planted and only bud wood or benchgrafts certified free of known virus disease by the Nursery and Seed Service of the California Department of Food and Agriculture should be used.

WINE GRAPES
 SAMPLE COSTS TO ESTABLISH A CANE-PRUNED, TRELLISED
 VINEYARD IN THE NORTH COAST COUNTIES - 1980

	Cost per acre		
	1st year	2nd year	3rd year
Cultural Cost			
Pre-plant tillage: 2X 1.5 hrs man & tractor	\$ 15		
Layout and mark: 5 man-hrs	26		
Distribute & set stakes: 13 man-hrs	68		
Stakes 7' treated - 413 @ 95¢	392		
Rootstocks (certified) - 413 @ 65¢	268		
Trim: 8 man-hrs	42		
Plant vines: 13 man-hrs	68		
Planting supervision: 1.5 hrs	9		
*Bud and cover, including rubber ties	170	\$ 40	\$ 13
*Budwood (certified) @ 5¢/bud	20	2	2
*Uncover and prune rootstocks: 2nd yr-8 hrs; 3rd-1 hr		42	5
*Cut rubbers and tops, place collars: 2nd yr-32 hrs, 3rd-4 hrs		168	21
End post (treated) 11 @ \$5.50			61
End posts, set @ \$4.00			44
String 2 wires & staple: 5 man-hrs		26	
Wire - 164 lbs, #13 high tensile @ 40¢/lb			67
Train & prune: 2nd yr-25 hrs; 3rd-12 hrs		131	63
Mildew control		5	16
Irrigation labor - 1 man-hr	5	5	5
Water & pumping power 1/2 acre ft	10	10	10
Repairs on irrigation system	18	18	18
Cultivation 3X and hand hoe: 8 man-hrs	46	46	46
Frost protection - labor		6	6
" " - power for 6" water		10	10
Misc. labor, materials, etc.	50	50	50
Int. on operating capital, 13%, 1/2 yr	78	36	28
TOTAL CULTURAL COST	\$ 1,285	\$ 595	\$ 465
Overhead			
Miscellaneous cash @ 8% of cultural cost	\$ 103	\$ 48	\$ 37
Taxes	85	100	112
Management @ \$10/acre/month	120	120	120
Interest @ 11% on investment	1,004	1,004	1,004
" " on accumulated investment		313	581
Depreciation	252	252	252
TOTAL OVERHEAD	\$ 1,564	\$ 1,837	\$ 2,106
TOTAL COST	\$ 2,849	\$ 2,432	\$ 2,571
ACCUMULATED COST	\$ 2,849	\$ 5,281	\$ 7,852
Investment Cost: Land			\$ 6,000
Site conversion			1,200
Irrigation & frost control			2,340
Buildings			300
Equipment			1,200
			\$11,040
TOTAL INVESTMENT AND COSTS FOR 3 YEARS			\$18,892

*If bench grafted vines are used instead of field budding, the cost is about \$1.85 per vine.

TOTAL INVESTMENT PER ACRE

Investment	Per acre	Annual cost per acre	
		Depre- ciation	Interest 11%
Land	\$ 6,000		\$ 660
Site conversion (includes tree or vine removal, ripping and fumigation)	1,200		132
Irrigation and frost control equipment	2,340	117	129
Buildings	300	15	17
Equipment:	<u>Total</u>		
Tractor - 50 HP wheel	\$ 16,000		
Pickup	7,500		
Disc 8'	3,500		
Chopper 6'	2,300		
Duster	1,900		
Gondolas - 2	7,500		
Miscellaneous*	<u>9,300</u>		
Total equipment	\$ 48,000	1,200	66
TOTAL INVESTMENT PER ACRE	\$ 11,040	\$ 252	\$ 1,004

*Includes pruning equipment, small tools, shop equipment and other items necessary for the operation of a vineyard.

SAMPLE COSTS TO PRODUCE
 OLDER, HEAD-TRAINED WINE GRAPES
 NORTH COAST COUNTIES - 1980

Yield: 3 tons per acre

Operation	Hours per acre	Cash and labor cost per acre				Total
		Labor	Fuel & repairs	Kind and quantity	Cost	
Dollars						
Cultural Costs						
Pruning, average 600 vines @ 15¢		\$ 90				\$ 90
Brush disposal (chopper)	.5	3	4			7
Sulfur 4X	1.2	6	6	Sulfur 50# @ 7¢	4	16
Pest management				Application	10	25
				Materials	15	13
Fertilizer	.5	3	3	Nitrogen 30# @ 25¢	7	42
Cultivation 4X	4.0	25	17			39
Misc. labor, materials, etc.		12	7		20	15
Interest on operating capital 13%					15	15
TOTAL CULTURAL COSTS		\$ 139	\$ 37		\$ 71	\$ 247
Harvest Costs						
Picking - 3 tons @ \$50/ton		150				150
Supervision	4.0	25				25
Move gondolas & misc.	2.0	11	4			15
Haul to winery				3 tons @ \$12/ton	36	36
TOTAL HARVEST COSTS		\$ 186	\$ 4		\$ 36	\$ 226
Cash Overhead						
Misc., office, etc.					\$ 38	\$ 38
Taxes					174	174
TOTAL CASH OVERHEAD						\$ 213
TOTAL CASH COST						\$ 685
Management						\$ 120
Annual cost						
Investment Cost		Per acre		Depreciation	Interest @ 11%	
Land		\$ 6,000		\$	\$ 660	
Vineyard		3,900		130	215	
Buildings		300		15	17	
Equipment		1,200		120	66	
		<u>\$ 11,400</u>		<u>\$ 265</u>	<u>\$ 958</u>	<u>\$1,223</u>
TOTAL COST PER ACRE						\$2,028
Cost per ton @ 3 ton yield						\$ 676

COST PER TON AT VARYING YIELDS
 OLDER, HEAD-TRAINED WINE GRAPES

Tons	Picking cost		Haul	Other costs	Total cost	
	Per ton	Per acre	Per acre	Per acre	Per acre	Per ton
2	\$ 100	\$ 200	\$ 24	\$ 1,842	\$ 2,066	\$ 1,033
3	50	150	36	"	2,028	676
4	45	180	48	"	2,070	518
5	35	175	60	"	2,077	415
6	35	210	72	"	2,087	354
8	35	320	96	"	2,157	277

SAMPLE COSTS TO PRODUCE
CANE-PRUNED, TRELLISED WINE GRAPES
NORTH COAST COUNTIES - 1980

Yield: 4 tons per acre

Operation	Hours per acre	Cash and labor cost per acre				Total
		Labor	Fuel & repairs	Materials Kind and quantity	Cost	
Dollars						
Cultural Costs						
Pruning -413 vines/acre	30.0	\$ 158				\$ 158
Brush disposal (chopper)	.5	3	4			7
Tying canes	4.0	21				21
Sulfuring 4X	1.2	6	6	Sulfur 50# @ 7¢	4	16
Pest management - 2X				Application	21	
				Materials	41	62
Fertilize	.5	3	3	Nitrogen 30# @ 25¢	8	14
Suckering	10.0	52				53
Winter weed control				Materials	10	
				Application	6	16
Summer weed control				Materials	6	
				Application	6	12
Cultivate 4X	3.0	19	13			32
Irrigation 2X	1.0	5	22	Pumping 6"	10	38
Frost protection	1.0	5	22	Pumping 6"	10	38
Misc. labor, supplies, etc.		12	7		20	39
Interest on operating capital 13%					33	33
TOTAL CULTURAL COSTS		\$ 284	\$ 78		\$ 174	\$ 536
Harvest Costs						
Picking - 4 tons @ \$60/ton		240				240
Supervision	4.0	25				25
Move gondolas, misc.	2.0	11	4			15
Haul to winery				4 tons @ \$12/ton	48	48
TOTAL HARVEST COSTS		\$ 276	\$ 4		\$ 48	\$ 328
Cash Overhead						
Misc., office, etc.					70	
Taxes					248	
TOTAL CASH OVERHEAD					\$ 318	\$ 318
TOTAL CASH COST		\$ 560	\$ 82		\$ 540	\$ 1,182
Management						\$ 120
Annual cost						
Investment Cost		Per acre		Depreciation	Interest @ 11%	
Land		\$ 6,000		\$ 262	\$ 660	
Vineyard		7,852		117	432	
Irrigation System		2,340		15	129	
Buildings		300		120	17	
Equipment		1,200			66	
Site conversion		1,200			132	
		\$ 18,892		\$ 514	\$ 1,436	\$ 1,950
TOTAL COST PER ACRE						\$ 3,252
Cost per ton @ 4 ton yield						\$ 813

COST PER TON AT VARYING YIELDS
CANE-PRUNED, TRELLISED WINE GRAPES

Tons	Picking cost		Haul Per acre	Other costs Per acre	Total cost	
	Per ton	Per acre			Per acre	Per ton
2	\$ 100	\$ 200	\$ 24	\$ 2,964	\$ 3,188	\$ 1,594
3	60	180	36	"	3,180	1,060
4	60	240	48	"	3,252	813
5	45	225	60	"	3,249	650
6	45	270	72	"	3,306	551

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