

SAMPLE COSTS TO ESTABLISH AND PRODUCE
EMPEROR TABLE GRAPES
CORDON TRAINED, SPUR PRUNED

San Joaquin Valley - 1986

This sheet is one of a series on sample costs of producing grapes in the San Joaquin Valley. This series includes: Thompson Seedless for Raisins and Wine, Thompson Seedless for Table Use, Wine Varieties, Emperor, Cardinal or Ribier and Flame Seedless table grapes. The input and cost data are to be used only as guides in determining the production costs for a specific vineyard and to help growers analyze costs and practices that would increase production efficiency. The figures shown are based on what are considered good management practices in many vineyards. They do not represent industry averages.

YIELD - Yield is the most important factor affecting costs per ton and profit per acre. The yield per acre used in this sample is average over a period of years for a typical, well-managed vineyard. Although this figure is higher than the industry average, some vineyards do better.

IRRIGATION - Sample costs for irrigation, labor and water costs are based on a pumping system with pipeline. Labor cost per acre is affected by the number of irrigations, quantity applied, and size of head. Large heads of water may lower the labor costs. When all the water is from an irrigation district, the investment overhead costs of depreciation and interest on irrigation facilities are normally lower.

PEST AND DISEASE CONTROL - Dusting and spraying costs may vary considerably from year to year. Control measures required also vary between vineyards. The sample costs shown on this sheet are based on average conditions. Pesticides, herbicides and fungicides listed are used to depict typical costs. Other materials may be equally effective and no specific recommendations are made for the products listed.

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CORDON TRAINED, SPUR-PRUNED TABLE GRAPES
Emperor, Flame Seedless, Ruby Seedless, Ribier, etc.
Sample Costs to Establish a Vineyard - 1986

Cost Analysis Worksheet

Costs are based on a 120 acre unit, vines spaced at 8' x 12'.
 Costs include Social Security, Workmen's Compensation and insurance.
 Yield of 300, 23-pound lugs (87/ton), 3.4 tons packed, and 1.6 tons culled.
 Tractor and
 Supervisory labor \$ 5.70 per hour
 Field labor \$ 4.85 per hour
 Tractor \$ 6.48 per hour

	Costs Per Acre		
	1st Year	2nd Year	3rd Year
YIELD: tons fruit / acre	—	—	5
PRE-HARVEST COSTS:			
Fumigate	468		
Land Preparation: contract			
4 hrs chisel and labor and			
4 hrs disc and float and labor	150		
Rootings: 454 at \$0.37 (+20, 2nd yr)	168	7	
Trim and store @ \$0.08 per rooting	36	2	
Machine planting: \$0.11/vine			
(+1 1/2 hrs labor 2nd year)	50	7	
Stakes (treated): 454 7-ft @ \$1		454	
End posts (treated): 11 8-ft @ \$4.50		50	
Stake and set end posts: \$0.18 stakes			
\$4.50 end posts		131	
Wire: #13 high tensile, 2nd yr 82 lbs;			
3rd yr 164 lbs at \$.34/lb.		28	56
String wire and staple: one, 2nd yr;			
two, 3rd yr		25	50
Attach crossarms and braces: 32 hrs labor			155
Crossarms: 3 ft. at \$.31, braces at \$.04			
+ staples, nails, tire wires at \$.04			177
Training and suckering: 40 hrs labor,			
2nd yr; 10 hrs labor, 3rd yr		194	49
Prune and Tie: 5 hrs labor, 2nd yr;			
12 hrs labor, 3rd yr		24	58
Rabbit control	15	8	
Irrigation: 5 hrs labor each year	29	29	29
Water power and/or district tax:			
60 ft pumping 1, 2, 3 1/2 ac. ft.			
@ \$32.70	33	65	114
Cultivation & irrigation preparation			
6 hrs labor + 4 hrs tractor, 1st yr;			
8 hrs labor + 4 hrs tractor after	60	72	72
Fertilizer: \$.30/lb (25 lbs N, 2nd yr			
and 40 lbs N, 3rd yr + \$5/acre for			
application		13	17
Pest management and disease control			
includes mildew	17	27	206
Fungicides: materials and application	35	32	32
Hand work: 18 hrs			87
Misc. Labor, materials, 1 hr tractor	34	29	34
TOTAL PRE-HARVEST COSTS	1086	1196	1136

Harvest Costs

Price of fruit to grower is net value after harvest

OVERHEAD COSTS:

Property taxes	39	39	39
Office and Business Costs	30	30	30
TOTAL OVERHEAD COSTS	69	69	69

TOTAL CASH COSTS	1155	1265	1284
ACCUMULATED CASH COSTS	1155	2420	3624

DEPRECIATION:

Building, equipment and irrigation	65	65	65
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INTEREST ON INVESTMENT @ 12.5%:

Building, equipment and irrigation	55	55	55
Land \$3000	375	375	375
Interest in accum. cash cost	144	382	453
TOTAL INTEREST ON INVESTMENT	574	732	883

TOTAL COST FOR THE YEAR	1794	2062	2152
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CREDIT FOR PRODUCTION * at \$125/ton for 5 tons	-	-	-625
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NET COST FOR THE YEAR	1794	2062	1527
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ACCUMULATED NET COST	1794	3857	5384
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* Fruit credit will vary widely by variety and year

EMPEROR TABLE GRAPES

Sample Costs for a Mature Vineyard - 1986

Based on a 120 acre unit, vines spaced at 8'x12'. Yield of 457, 23-pound lugs (87/ton), 5.25 tons shipped and 1.75 tons culls. Wages include Social Security, Workmen's Compensation, and insurance.

Tractor and

Supervisory labor \$	5.70 per hour
Field Labor \$	4.85 per hour
Tractor \$	6.48 per hour

Operation	Labor Hours per Acre	Labor	Cash and Fuel & Repairs	Labor Costs per Acre		Total Cost	Your Cost
				Kind and Quantity	Materials Cost		
Pre-harvest Cash Costs:							
Pruning: contract				\$.20/vine, 454 vine/acre	90.80	90.80	
Brush Disposal: contract				alternate middles	7.00	7.00	
Fertilizer				50 lbs N @ \$.30/lb + \$5/acre application	20.00	20.00	
Growth regulator				16 g Gibberillin and 1 pt ethephon	25.42	25.42	
Disease & pest control including mildew				Bayleton, Kryocide, thiodan and fungicide	125.80	125.80	
Disease, pest and growth regulator application cost						55.00	
Herbicides				Materials and appl. cost	38.92	38.92	
Cultivaition and irrigation preparation	4	22.80	25.92			48.72	
Irrigate	5	24.25				24.25	
Water power and/or district tax 4 1/2 ac ft @ \$32.70					147.15	147.15	
Fruit Exposure	17	82.45				82.45	
Misc.	8	38.80	12.96	materials	32.00	83.76	
Interest on operating capital @ 12.5%						93.66	
TOTAL PRE-HARVEST COSTS	34	168.30	38.88		487.09	842.93	
Cash overhead:							
Office and business costs						30.00	
County Taxes						38.75	
TOTAL CASH OVERHEAD COSTS						68.75	
TOTAL CASH COSTS						911.68	
TOTAL CASH COST PER LUG	457 lugs/acre						1.99
Investment							
	Per Acre			Annual Cost			
				Depreciation	Interest @ 12.5%		
Equipment, buildings & irrigation	875.40			65.23	54.71	119.94	
Vines, stakes, trellis: 20 yr life	5384.00			269.20	336.50	605.70	
Land	3000.00				375.00	375.00	
TOTAL INVESTMENT COSTS	9259.40			334.43	766.21	1100.64	
TOTAL COSTS PER ACRE						2012.32	
TOTAL COSTS PER LUG, 457 lugs per acre							4.40

Cost Per Lug of Packed Fruit

House Packed

Pre-harvest cost	4.40
Harvest costs	3.35
Pick and haul	.85
Packinghouse cost, including cold storage	2.50

TOTAL COSTS 1,2 7.75

Field Packed

Pre-harvest cost	4.40
Harvest costs	3.25
Pick, pack and supervision	.95
Boxes, etc	1.55
Spread Boxes, swamp, haul	.35
Storage and handling	.40

TOTAL COSTS 1,2 7.65

1 - Selling commission, Table Grape Commission assessment, inspection and costs of special packing are not included

2 - Does not include any credit received for culls

GRAPES
TABLE VARIETY

EQUIPMENT AND BUILDING LIST

ITEM	ORIGINAL COST	ANNUAL USE (ACRES)	COST PER ACRE	LIFE (YEARS)	OVERHEAD DEPREC-IATION	INTEREST AT 12.5%	REPAIR COST PER HR	FUEL PER HOUR	REPAIR AND FUEL COST PER HOUR
Tractors:									
30 HP wheel diesel	13000	120	108.33	10	10.83	6.77	1.30	1.95	3.25
60 HP wheel diesel	31000	120	258.33	10	25.83	16.15	2.58	3.90	6.48
Disk, tandem 8'	7500	120	62.50	15	4.17	3.91	3.60		3.60
Border disc	2000	120	16.67	15	1.11	1.04	.96		.96
Springtooth - 8'	1500	120	12.50	20	.63	.78	.90		.90
Flat furrower	2800	120	23.33	20	1.17	1.46			
Three-point hitch sprayer (100 gallons)	1100	120	9.17	10	.92	.57	.92		.92
Mower	4000	120	33.33	10	3.33	2.08			
3-Wheel Motorcycle	1500	120	12.50	5	2.50	.78			
Pickup	8000	120	66.67	5	13.33	4.17			
Misc. Tools	5000	120	41.67	10	4.17	2.60			
Cane cutters	2679	120	22.33	10	2.23	1.40			
2 tool bars	800	120	6.67	10	.67	.42			
Air compressor	600	120	5.00	10	.50	.31			
Irrigation System	81600	120	680.00	20	34.00	42.50			
Buildings	12000	120	100.00	30	3.33	6.25			
TOTAL COST	175079		1458.99		108.72	91.19	10.26	5.85	16.11
60% NEW COSTS	105047		875.40		65.23	54.71	6.16	3.51	9.67

HERBICIDE COSTS FOR GRAPES

Mature Vineyards of all Varieties - 1986

Date	Problem	Material	Amount per Vineyard Acre	Cost/Acre \$	Application Cost
Jan-Mar	Weeds, Preemergence and clean-up	Karmex*	.5 lb	1.65	8.00
		Simazine	.5 lb	1.65	
		Paraquat*	1.0 pt	6.00	
		Surfactant	.2 gal	2.81	
May-June	Maintenance	Roundup*	1 pt	10.00	6.00
		Surfactant	.2 gal	2.81	
				24.92	14.00

PESTICIDE COST - EMPERORS

For a Mature vineyard - 1986

Time	Purpose	Material	Amount	Material Cost	Application Cost
Mid April	Powdery Mildew	Bayleton*	4 oz	11.75	8.00
Bloom	Powdery Mildew	Bayleton*	4 oz	11.75	
Mid May	DLR, and GLS	Kryocide*	8 lb	8.80	8.00
Bloom + 14-21 days	Powdery Mildew Growth Regulator	Bayleton*	4 oz	11.75	8.00
		Gibberellin	16 gm	17.92	
Jul 15 to Aug 1	Leafhopper***	Thiodan*	2.5 lb	10.00	8.00
	Powdery Mildew Growth Regulator	Bayleton* Ethephon	4 oz 1 pt	11.75 7.50	8.00
Sept. 1	Stem mildew and bunchrot	Fungicide Dust	3 appl \$20 ea	60.00	15.00
				151.22	55.00

* Registered Trademark

** May be combined with leafhopper spray

*** Some growers may put on a second leafhopper spray

**** Materials and rates are not included because of wide variation among growers

PESTICIDE ESTABLISHMENT COSTS

All Varieties

1st Year:

Kryocide 8lbs Cost = \$8.00 + \$8.00 application
(DLR and GLS)

2nd Year:

Kryocide 8lbs Cost = \$8.00
(DLR and GLS)
Plus \$8.00 application cost

Thiodan 2.5 lbs Cost = \$10.00
(Leafhopper)

3rd Year:

Same as pesticide production cost for that particular variety