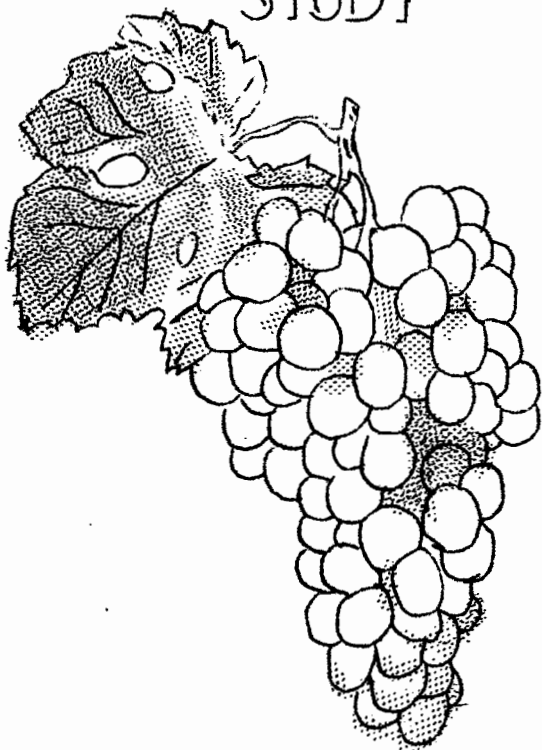


1954

SONOMA COUNTY
WINE GRAPE MANAGEMENT
STUDY



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I N T R O D U C T I O N

This is the second and final report of the current Sonoma County Wine Grape Management Study. This study has been conducted by the Agricultural Extension Service in cooperation with a small number of Sonoma County grape growers for the purpose of obtaining factual information relating to the present costs of grape production.

Records covering the 1954 crop year are based on information received from six ranches with 137 acres. This sample is very small when the present total of approximately 10,000 acres is taken into account. However, the areas and types of operations included may be considered as typical of those throughout the County. Even though typical the records and average figures presented in this report are not considered as average for the County and apply only to six vineyards included.

O U T L O O K

The cost of producing wine grapes in Sonoma County will probably remain at a rather high level. Low producing vineyards and plantings which cannot be adapted to modern mechanized practices will continue to drop out of the picture. The more promising availability of good irrigation water may make it possible to bring many marginal vineyards up to a profitable production level.

Present demands are good for many varietal grapes. The outlook is good for a continuing strong demand for these premium varieties.

The present trend in Sonoma County toward diverting agricultural land to non-agricultural uses promises to continue. This local trend coupled with similar trends in other North Coast vineyard areas should make the establishment of new plantings more attractive in the immediate future.

EXPLANATION OF SOME OF THE TERMS USED IN THIS REPORT

COSTS

Cultural Labor

----- is the cost of labor up to harvest. This includes both hired labor and the value of the operator's labor at the current rate.

Cash Overhead

----- is all cash costs not included in labor or otherwise specifically itemized. These include general expenses, county taxes, compensation insurance, and repairs of equipment and facilities. The general expense item is set up at 5% of labor and material costs and covers such outlays as office expenses and use of family car in the operation of the enterprise.

Depreciation

----- is that portion of the original cost of facilities and equipment which is chargeable to the current years operation. Depreciation on trucks and tractors is included in the hourly rate charged to their uses.

Interest on Investment

----- is a charge of 5% on the average value of facilities and equipment. Average values, except for land, are figured at one-half the original cost or replacement cost as the case may be.

Total All Costs

- - - - - includes all cash, labor, and material costs, the value of the operators own labor, and computed depreciation and interest charges. It does not include any allowance for the operators management.

Management Income

- - - - - is the amount by which the total income exceeds the total cost of production. It represents returns from the operators management and is a part of his earnings which provide his living. If the total cost is largest a NET LOSS occurs. A NET LOSS is shown by a minue sign (-) preceding the figure.

Total Net Farm Income

- - - - - is the growers personal income composed of his returns from management, labor and invested capital. For the operator out of debt it would be comparable to the profit as figured for income tax purposes.

TABLE I. - Main Profit Factors in Individual

| | 2 | 7 |
|--|--------|--------|
| Yields, Tons per Acre | 3.84 | 3.73 |
| Average Price per Ton | 48.70 | 47.97 |
| Total Income per Acre | 187.19 | 178.94 |
| Cost per Acre | | |
| Cultural Labor, Tractor & Truck | 36.53 | 40.51 |
| Picking | 37.87 | 28.33 |
| Hauling to Winery, Boxes, etc. | 12.87 | 4.25 |
| Total Labor and Field Power | 87.27 | 73.09 |
| Materials, Irrig.W., fertilizers, sulfur | 7.38 | 2.34 |
| Cash Overhead, taxes, Ins., etc. | 10.83 | 9.03 |
| Total Cash Costs | 105.48 | 84.46 |
| Depreciation Vines \$15.00 & equipt. | 18.23 | 19.49 |
| Sub total, Cash & Depreciation Cost | 123.71 | 103.95 |
| Interest on Investment @ 5% | 29.17 | 41.06 |
| Total All Costs per Acre | 152.88 | 145.01 |
| Management Income per Acre | 34.31 | 33.93 |
| Capital & Management Income | 63.48 | 74.99 |
| Value Operators Labor Included | 23.44 | 19.82 |
| Total Net Farm Income | 86.92 | 94.81 |

The six individual records for 1954 are listed above in order of management income per acre. Two records No. 2 and 7 had a management income or true profit over all costs as figured in these records. Both had yields of almost 4 tons per acre. No. 4 with only 2.3 tons per acre had only a small loss because of low total costs per acre. No. 1, with the best yield of 4.1 tons per acre, also had only a very small loss with highest total costs per acre.

Wine Grape Vineyards, 1954

| 4 | 1 | 5 | 6 | Av. 6 1954 | Av. 8 1953 |
|--------|--------|--------|--------|---------------|---------------|
| 2.33 | 4.15 | 2.24 | 1.90 | 2.91 | 2.67 |
| 48.93 | 46.22 | 50.00 | 45.00 | 48.48 | 42.09 |
| 114.17 | 192.04 | 112.14 | 85.56 | 141.00 | 112.31 |
| 25.73 | 59.06 | 32.03 | 51.00 | 34.60 | 41.25 |
| 23.34 | 42.02 | 25.45 | 25.69 | 28.53 | 27.59 |
| 8.40 | 23.64 | 4.38 | 13.37 | 8.96 | 7.25 |
| 57.47 | 124.72 | 61.86 | 90.06 | 72.09 | 76.09 |
| .46 | 3.01 | 1.63 | 2.18 | 2.51 | 6.64 |
| 7.67 | 11.58 | 10.31 | 15.20 | 9.60 | 9.75 |
| 65.60 | 139.31 | 73.80 | 107.44 | 84.20 | 92.48 |
| 16.88 | 20.31 | 20.63 | 16.48 | 18.49 | 18.70 |
| 82.48 | 159.62 | 94.43 | 123.92 | 102.69 | 111.18 |
| 32.08 | 33.24 | 35.43 | 40.77 | 34.10 | 33.47 |
| 114.56 | 192.86 | 129.86 | 164.69 | 136.79 | 144.65 |
| -.39 | -.82 | -17.72 | -79.13 | 4.21 | -32.34 |
| 31.69 | 32.42 | 17.71 | -38.36 | 38.31 | 1.13 |
| 4.64 | 19.95 | 4.11 | 2.37 | 11.25 | 10.62 |
| 36.33 | 52.37 | 21.82 | -35.99 | 49.56 | 11.75 |

Yields were too low to cover costs in records 5 and 6. It looks like yields below 3 tons per acre will not cover costs at current levels. Low yielding vineyards will be unprofitable unless yield per acre can be improved or costs materially reduced.

The last 2 columns enable comparison of study averages for the last 2 years.

TABLE II. - Soil Type, Yield, and Costs, Income and Net Income per Ton, 1954

| | 2 | 7 | 4 | 1 | 5 | 6 | Av. 6 1954 | Av. 8 1953 |
|-------------------------------------|-------|-------|-------|----------|--------|---------|---------------|---------------|
| Soil Type: see below | McL | YsL | FL | Y & Pl L | S & YL | YL | --- | --- |
| Yield per A., white varieties | 8.00 | 5.82 | 3.00 | 4.94 | 3.75 | --- | --- | --- |
| Yield per A., black varieties | 3.55 | 2.98 | 2.20 | 2.75 | 2.05 | 1.90 | --- | --- |
| Av. yield, all varieties | 3.84 | 3.73 | 2.33 | 4.15 | 2.24 | 1.90 | 2.91 | 2.7 |
| Cultural Labor, Cost per Ton | 9.50 | 10.86 | 11.03 | 14.22 | 14.28 | 26.82 | 11.90 | 15.46 |
| Picking | 9.85 | 7.60 | 10.00 | 10.11 | 11.35 | 13.51 | 9.81 | 10.34 |
| Hauling | 3.35 | 1.14 | 3.60 | 5.69 | 1.95 | 7.04 | 3.08 | 2.72 |
| Total Labor & Field Power | 22.70 | 19.60 | 24.63 | 30.02 | 27.58 | 47.37 | 24.79 | 28.52 |
| Materials, sulfur, fertilizer, etc. | 1.92 | .62 | .20 | .72 | .72 | 1.15 | .86 | 2.49 |
| Cash Overhead Cost, taxes, etc. | 2.82 | 2.42 | 3.29 | 2.79 | 4.60 | 7.99 | 3.30 | 3.65 |
| Depreciation, vines, equipment | 4.74 | 5.23 | 7.23 | 4.89 | 9.20 | 8.67 | 6.36 | 7.01 |
| Subtotal Cash & Depreciation Costs | 32.18 | 27.87 | 35.35 | 38.42 | 42.10 | 65.18 | 35.31 | 41.67 |
| Interest on Investment | 7.59 | 11.00 | 13.75 | 8.00 | 15.80 | 21.44 | 11.72 | 12.54 |
| Total All Costs per Ton | 39.77 | 38.87 | 49.10 | 46.42 | 57.90 | 86.62 | 47.03 | 54.21 |
| Av. Price or Price Estimate per Ton | 48.70 | 47.97 | 48.93 | 46.22 | 50.00 | 45.00 | 48.48 | 42.09 |
| Management Income per Ton | 8.93 | 9.10 | -.17 | -.20 | - 7.90 | - 41.62 | 1.45 | - 12.12 |
| Capital & Management Income per Ton | 16.52 | 20.10 | 13.58 | 7.80 | 7.90 | - 20.18 | 13.17 | .42 |

Soil Types: Y & Pl L - Yolo & Pleasanton Loams; McL - Madera clay Loam; CgL - Corning gravelly Loam;
FL - Fresno Loam; S & YL - Sites and Yolo Loams; YL - Yolo Loam; YsL - Yolo silt Loam.

Yield per acre is the most important profit factor. The higher the yield the lower the cost per ton or the greater the income per acre. Yields shown above per acre for white grapes were higher than for the black varieties in all cases. The white varieties however, brought about \$5.00 less per ton in most cases, prices being \$45 for common whites and \$50 a ton for blacks.

Costs per ton are shown above to vary from a low of \$38.87 in No. 7 to a high of \$86.62 in No. 6. Differences in yield and costs per acre account for differences in costs per ton.

Picking and hauling make up about a fourth of the total cost of production. These costs may be reduced considerably by adapting the vineyard to utilize presently available mechanical harvesting aids.

TABLE III. - Cultural Costs per Acre in

| | 2 | 7 |
|--------------------------------|-------|--------|
| Pruning | 17.37 | 16.97 |
| Brush Disposal | --- | .43 |
| Applying Fertilizer | 1.78 | --- |
| Sulfuring | .44 | 1.02 |
| Tying | 3.91 | --- |
| Suckering | 3.00 | 5.42 |
| Cultivation | 10.03 | 12.45 |
| Irrigation | --- | * 3.43 |
| Miscellaneous | --- | 3.33 |
| Total Cultural Labor | 36.53 | 40.51 |
| Irrigation - Power for Pumping | --- | * 3.57 |
| Fertilizer | 6.25 | .12 |
| Sulfur | 1.08 | .53 |
| Twine for Tying | .05 | --- |
| Miscellaneous - Replants, etc. | --- | .76 |
| Total Cultural Material | 7.38 | 2.34 |
| Total Cultural Costs per Acre | 43.91 | 42.85 |

* Items marked with an asterisk are figures for only that acreage for which a cost was reported. For example: Nos. 2, 4 and 5 has no brush disposal cost. The average cost of brush disposal for 1954 is shown as \$1.54 per acre which applies only to the acreage in records 7, 1 and 6. Irrigation was only on part of the acreage in records 7 and 1 and is shown per acre for only the acreage that was actually irrigated. Since not all acreage had each cost shown the average total cultural costs for all acreage is less than a sum of the separate items.

Individual Vineyards - 1954

| 4 | 1 | 5 | 6 | Av. 6 1954 | Av. 8 1953 |
|-------|--------|-------|-------|---------------|---------------|
| 14.00 | 25.24 | 9.60 | 20.38 | 15.21 | 14.32 |
| --- | 3.91 | --- | 2.00 | * 1.54 | * 4.06 |
| --- | --- | .98 | --- | * 1.36 | * 2.53 |
| .80 | 1.36 | .97 | 1.37 | .86 | 1.04 |
| .13 | .73 | .12 | --- | * 1.05 | * .70 |
| .13 | 1.82 | 3.84 | 19.25 | 3.23 | 4.54 |
| 10.67 | 21.82 | 10.92 | 8.00 | 11.46 | 16.42 |
| --- | * 6.83 | --- | --- | * 5.00 | * 3.85 |
| --- | .45 | 5.60 | --- | * 3.99 | * 2.34 |
| 25.73 | 59.06 | 32.03 | 51.00 | 34.60 | 41.25 |
| --- | * 2.40 | --- | --- | * 3.03 | * 2.98 |
| --- | --- | .43 | --- | * 2.32 | * 5.17 |
| .46 | 1.70 | 1.20 | 2.18 | .89 | 1.26 |
| --- | --- | --- | --- | * .05 | * .35 |
| --- | --- | --- | --- | * .76 | * 4.01 |
| .46 | 3.01 | 1.63 | 2.18 | 2.51 | 6.64 |
| 26.19 | 62.07 | 33.66 | 53.18 | 37.11 | 47.89 |

A careful study and comparison of each item of cost might suggest an opportunity to save on an item here and there. A range in pruning cost from a low of \$9.60 to a high of \$25.24 might suggest an adequate figure somewhere in between. If 3 can spend little or nothing on disposal of prunings, could this be reduced? Cultivation to accomplish minimum essentials might require around \$10.00 per acre. Will fertilizing pay in increased yields?

TABLE IV. - Cash Overhead and Depreciation

| | 2 | 7 |
|---|---------------|---------------|
| Cash Overhead Costs | | |
| General Expense | 4.73 | 3.77 |
| County taxes | 5.00 | 4.52 |
| Repairs (except truck & tractor) | -- | -- |
| Compensation Insurance | 1.10 | .74 |
| Total Cash Overhead | 10.83 | 9.03 |
| Depreciation | | |
| Vines, including stakes (\$600 ÷ 40yrs) | 15.00 | 15.00 |
| General buildings & Improvements | 1.08 | .05 |
| Irrigation system (part only) | -- * | 7.12 |
| Tillage equipment except tractors | 1.17 | .52 |
| Dusters | .13 | .09 |
| Miscel. lugboxes, shears, etc., | .85 | 1.98 |
| Total Depreciation | 18.23 | 19.49 |
| Investment per Acre | | |
| Vines at $\frac{1}{2}$ estimated cost | 300.00 | 300.00 |
| General buildings & improvements | 20.80 | 1.31 |
| Irrigation System (part only) | -- * | 40.25 |
| Tillage equipment | 7.00 | 1.32 |
| Dusters | .74 | .46 |
| Miscellaneous | 4.87 | 7.56 |
| Land - est. Agricultural Value | 250.00 | 500.00 |
| Total Investment per Acre | 583.41 | 821.09 |
| Interest on Investment @ 5% | 29.17 | 41.06 |
| Investment tractors, trucks **per A. | --- | 8.61 |
| Depreciation tractors, trucks ** | --- | 2.60 |

* Averages so marked apply only to the acreage served

** Overhead on tractors and trucks is supposedly covered

Cash and investment overhead costs are a proper part of the total cost of production. Depreciation is based on expected life of the item divided into its actual original cost. Vines were estimated to have a cost when

and Interest on Investment per Acre, 1954

| 4 | 1 | 5 | 6 | Av. 6 1954 | Av. 8 1953 |
|--------|---------|--------|--------|---------------|---------------|
| 2.90 | 6.39 | 3.17 | 4.61 | 3.73 | 4.13 |
| 4.26 | 4.54 | 6.00 | 9.58 | 5.05 | 4.67 |
| --- | --- | --- | --- | --- | .06 |
| .51 | .65 | 1.14 | 1.01 | .81 | .89 |
| 7.67 | 11.58 | 10.31 | 15.20 | 9.60 | 9.75 |
| 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 14.63 |
| .62 | .69 | 2.00 | .78 | .91 | 1.57 |
| --- | * 2.16 | --- | --- | * 4.83 | * 4.84 |
| .69 | .96 | 1.43 | --- | * .93 | * 1.04 |
| .17 | .23 | .43 | .18 | .21 | .18 |
| .40 | 2.25 | 1.77 | .52 | 1.13 | 1.10 |
| 16.88 | 20.31 | 20.63 | 16.48 | 18.49 | 18.70 |
| 300.00 | 300.00 | 300.00 | 300.00 | 300.00 | 300.00 |
| 12.50 | 6.85 | 39.29 | 11.80 | 17.32 | 27.14 |
| --- | * 14.25 | --- | --- | * 28.23 | * 28.20 |
| 4.32 | 7.18 | 9.57 | --- | * 5.65 | * 6.10 |
| .83 | 1.14 | 2.50 | .89 | 1.12 | .93 |
| 24.00 | 5.50 | 7.28 | 2.60 | 12.35 | 10.35 |
| 300.00 | 336.36 | 350.00 | 500.00 | 343.64 | 323.75 |
| 641.65 | 664.77 | 708.64 | 815.29 | 681.94 | 669.44 |
| 32.08 | 33.24 | 35.43 | 40.77 | 34.10 | 33.47 |
| --- | 48.00 | 29.25 | --- | --- | --- |
| --- | 6.80 | 5.85 | --- | --- | --- |

by these facilities.

by the hourly rates included in labor costs.

bearing of \$600 an acre. Interest on investment is figured on half the original cost of depreciable item which decline in value from cost to zero over their lifetime.

S U M M A R Y

The 1954 study management income shows a profit of \$4.21 per acre. This is a considerable improvement over the 1953 average of (minus) -\$32.34. In spite of this improvement four of the six vineyards included failed to show a management profit. This failure can be traced to three main basic factors. These are too low production, too high production costs and, in the light of the first two considerations, a too low price received.

The wide range shown in both management income figures and farm income figures suggests that both yeilds and production costs can be greatly influenced by the operator. In three of the four cases where losses occurred an increase of 1 ton per acre would have brought a profit. In all four cases a minimizing of hand labor would help reduce the costs of production. Present trends toward mechanizing all possible cultural operations together with a wider use of irrigation and fertilization practices will help bring about both higher yields and lower costs.