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FARM BUSINESS ANALYSIS AND SUMMARY

9 Chautauqua County Grape Farms

1968

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FARM BUSINESS ANALYSIS AND SUMMARY  
9 Chautauqua County Grape Farms  
1968

This report is a summary and analysis of the farm business records kept by 9 Chautauqua County grape growers for the 1968 calendar year.

The records were kept under the Electronic Accounting Program with the assistance and supervision of T. D. Jordan, Associate County Agricultural Agent in Chautauqua County. Information recorded included expenses and receipts and beginning and ending inventories on the entire farm business.

Except for one farm, grape growing was the most important single enterprise on each of the farms. An average of 85 per cent of the total work units were used on this fruit.

The records from 12 farms in this County were summarized in 1967. Before that, the last grape record keeping project in this County covered the years 1956-1958. As was true in 1968 and in the earlier projects, growers included in this report were not selected at random. They were ones interested in a financial record of their businesses and a comparison with averages of other farms. This should be kept in mind as one studies this report. However, this report is useful to any grape grower. It provides a simple framework for summarizing and analyzing the farm business. Also, it provides standards which any grower can use as a basis for comparison to determine how his operations measure up to these averages.

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T. D. Jordan, Associate Cooperative Extension Agent, Chautauqua County, supervised the records kept by the cooperating growers. This summary was prepared by Professors B. A. Dominick, Jr., and C. W. Loomis, Department of Agricultural Economics, Cornell University.

Chautauqua County Grape Growers  
Summary  
1968

MEASURING THE PROFIT OR LOSS FROM THE FARM BUSINESS IN 1968

| <u>Items</u>                                    | <u>My Farm</u> | <u>Average per Farm</u><br><u>9 Farms</u> |
|---|----------------|---|
| Average farm inventory                          | \$ _____       | \$138,794                                 |
| Farm receipts, grapes<br>(cash receipts, 1968*) | \$ _____       | \$ 32,694                                 |
| Farm receipts, other                            | _____          | <u>20,315</u>                             |
| Total farm receipts                             | \$ _____       | \$ 53,009                                 |
| Farm expenses                                   | _____          | <u>41,964</u>                             |
| Farm income                                     | \$ _____       | \$ 11,045                                 |
| Interest on capital @ 5 per cent                | _____          | <u>6,939</u>                              |
| Labor income per farm                           | \$ _____       | \$ 4,106                                  |
| Total number of operators                       | _____          | 9   |
| Labor income per farm operator                  | \$ _____       | \$ 4,106                                  |

Labor income is the return the farm operator receives for his labor and management, in addition to the use of a house and products from the farm. It is the amount left after paying all farm expenses, and deducting a charge for unpaid family labor, and for interest on all of the capital invested in the business.

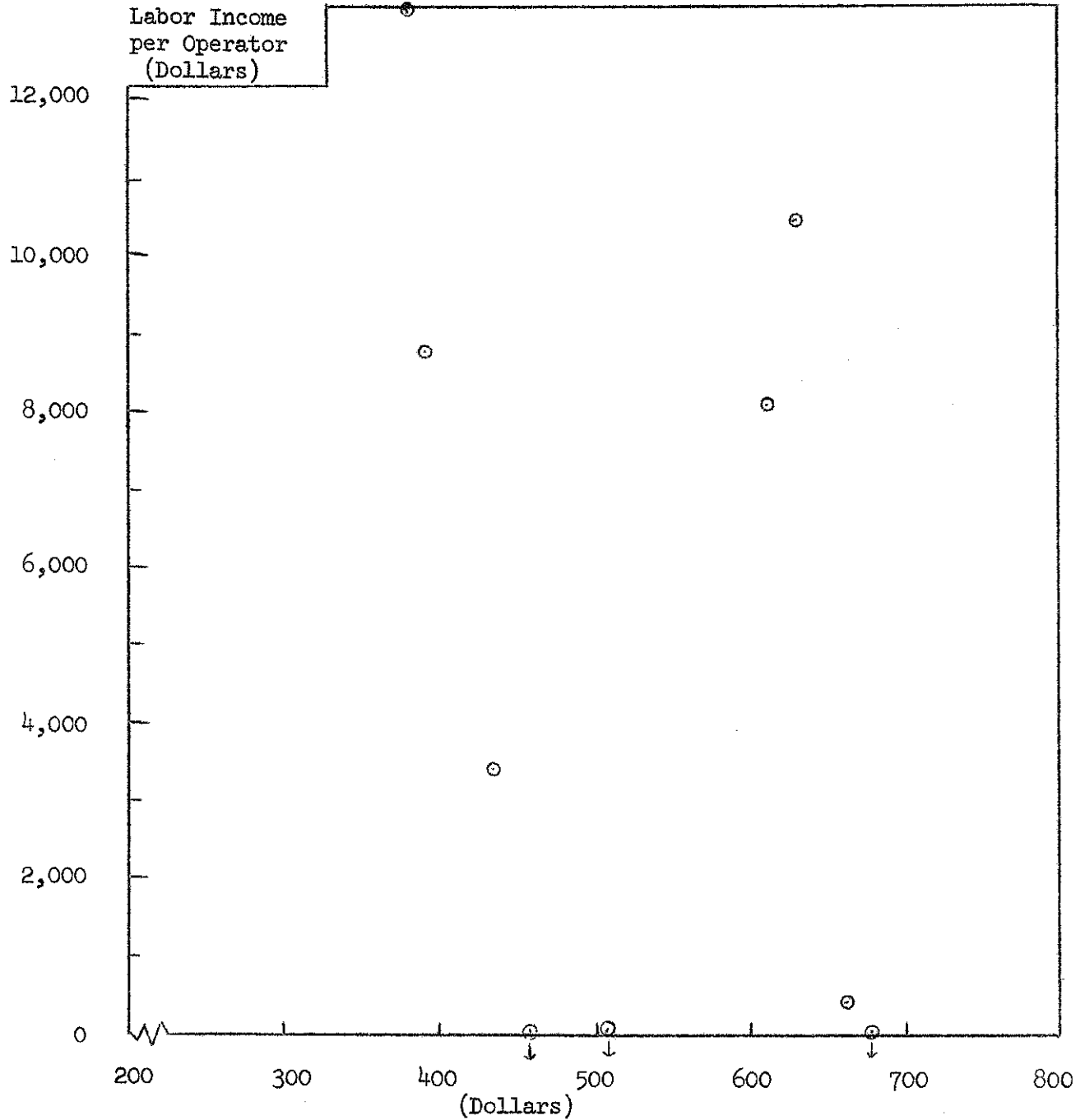
Because receipts from the grape crop are spread over two or three years, labor income as measured here for one year is somewhat misleading.

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\* In calculating receipts, all cash income from grapes received in 1968 was included, regardless of what crop the payment was for. All grape certificates for the 1966-67 crops were valued at 53 per cent of the face value, and added to cash receipts. Receipts from grape certificates that were sold for cash were not included.

Chautauqua County Grape Growers  
Summary  
1968

LABOR INCOME AND GRAPE INCOME  
PER ACRE OF BEARING GRAPES



Grape Income Received in 1968 Per Acre of Bearing Grapes\*

\* Includes cash income for 1965, 1966, 1967, and 1968 crops and certificates at 53 per cent of face values.

Chautauqua County Grape Growers  
Summary  
1968

CAPITAL INVESTMENT

Farm Inventories, End of Year

| <u>Items</u>  | <u>My Farm</u> | <u>Average<br/>per<br/>Farm</u> | <u>Per Cent<br/>of<br/>Total</u> |
|---|----------------|---------------------------------|----------------------------------|
| Livestock   | \$ _____       | \$ 555                          | *                                |
| Crops, feed and supplies                            | _____          | 1,240                           | 1                                |
| Machinery and equipment                             | _____          | 18,745                          | 13                               |
| Land and buildings                                  | _____          | 122,527                         | 86                               |
| Total farm inventories                              | \$ _____       | \$143,067                       | 100                              |
| Man equivalent                                      | _____          | 3.8                             |                                  |
| Investment per man                                  | \$ _____       | \$ 37,649                       |                                  |
| Number of acres of bearing grapes                   | _____          | 67                              |                                  |
| Total farm investment per acre<br>of bearing grapes | \$ _____       | \$ 2,135                        |                                  |
| Number of acres in all fruit                        | _____          | 72                              |                                  |
| Investment per acre in all fruit                    | \$ _____       | \$ 1,987                        |                                  |
| Number of crop acres                                | _____          | 85                              |                                  |
| Investment per acre in crops                        | \$ _____       | \$ 1,683                        |                                  |

Based on end of year inventory values, the total investment on the 9 grape farms averaged \$143,067.

Investment costs are an important part of your costs of operation. If yours are out of line in relation to your productive capacity, this means an added burden in overhead cost.

\* Less than one per cent.

Chautauqua County Grape Growers  
Summary  
1968

SOURCES OF INCOME

Farm Receipts

| <u>Items</u>                           | <u>My Farm</u>  | <u>Average per Farm</u> | <u>Per Cent of Total</u> |
|--|-----------------|-------------------------|--------------------------|
| Grape receipts:                        |                 |                         |                          |
| 1968 crop                              | \$ _____        | \$ 15,567               |                          |
| 1967 crop                              | _____           | 11,413                  |                          |
| 1966 crop                              | _____           | 760                     |                          |
| 1965 crop                              | _____           | 389                     |                          |
| 1966-67 crop (certificates)            | _____           | <u>4,565</u>            |                          |
| Total grape receipts*                  | \$ _____        | \$ 32,694               | 62                       |
| Other crop receipts                    | _____           | 819                     | 2                        |
| Livestock products and livestock sales | _____           | 2,854                   | 5                        |
| Work off farm                          | _____           | 4,447                   | 8                        |
| Miscellaneous receipts                 | _____           | 3,648                   | 7                        |
| Increase in inventory                  | _____           | <u>8,547</u>            | <u>16</u>                |
| Total farm receipts                    | \$ <u>_____</u> | \$ <u>53,009</u>        | <u>100</u>               |

Grape income comprised 62 per cent of total farm receipts. About half of the grape income received in 1968 was for the current crop.

Increase in inventory is included as a farm receipt because it is assumed that the added inventory value could be turned into cash at the owner's discretion. The increase in inventory came about through additional investment in machinery and in land and buildings.

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\* Cash received during 1968, plus cash value of 1966-67 grape certificates calculated at 53 per cent of face value.

Chautauqua County Grape Growers  
Summary  
1968

6

FARM EXPENSES

| <u>Items</u>                    | <u>My Farm</u>  | <u>Average<br/>per<br/>Farm</u> | <u>Per Cent<br/>of<br/>Total</u> |
|---------------------------------|-----------------|---------------------------------|----------------------------------|
| Livestock expense               | \$ _____        | \$ 1,380                        | 3                                |
| Lime and fertilizer             | _____           | 1,265                           | 3                                |
| Seeds and plants                | _____           | 294                             | 1                                |
| Storage and containers          | _____           | 40                              | **                               |
| Spray materials                 | _____           | 1,150                           | 3                                |
| Vineyard and other crop expense | _____           | 2,064                           | 5                                |
| Gas and oil                     | _____           | 1,127                           | 2                                |
| Auto and truck                  | _____           | 297                             | 1                                |
| Equipment repair                | _____           | 1,641                           | 4                                |
| Machine hire                    | _____           | 1,819                           | 4                                |
| Real estate upkeep              | _____           | 486                             | 1                                |
| Regular hired labor*            | _____           | 1,939                           | 5                                |
| Other hired labor*              | _____           | 12,723                          | 30                               |
| Telephone and electricity       | _____           | 293                             | 1                                |
| Taxes                           | _____           | 1,618                           | 4                                |
| Insurance                       | _____           | 1,393                           | 3                                |
| Miscellaneous farm expense      | _____           | 2,224                           | 5                                |
| New Buildings                   | _____           | 3,688                           | 9                                |
| New Machinery                   | _____           | 5,891                           | 14                               |
| Livestock bought                | _____           | 31                              | **                               |
| Other (grape contract)          | _____           | 334                             | 1                                |
| Unpaid family labor             | _____           | 267                             | 1                                |
| Total farm expenses             | \$ <u>_____</u> | \$ <u>41,964</u>                | <u>100</u>                       |

Farm expenses on these 9 Chautauqua County farms averaged \$41,964. Hired labor was the most important, accounting for 35 per cent of the total. Equipment costs were the next largest expense. The combined costs of gas, truck and auto, equipment repair, machine hire, and new machinery accounted for 25 per cent of all expenses.

\* In some cases, the division of labor expense was estimated.

\*\* Less than one per cent.

Chautauqua County Grape Growers  
Summary  
1968

7

POWER AND MACHINERY COSTS\*

Successful farm managers have substituted power and machinery for labor to a large degree. As this process continues, it is vitally important to retain control of the costs associated with owning and operating farm equipment.

| Item  | My Farm  | Average per Farm |
|---|----------|------------------|
| Beginning inventory                         | \$ _____ | \$ 15,373        |
| New machinery bought                        | _____    | <u>5,978</u>     |
| Total                                       | \$ _____ | \$ 21,351        |
| End inventory                               | \$ _____ | \$ 18,745        |
| Machinery sold                              | _____    | 12               |
| Total                                       | \$ _____ | <u>\$ 18,757</u> |
| Depreciation                                | \$ _____ | \$ 2,507         |
| Interest at 5% av. inventory                | _____    | 853              |
| Gas and oil                                 | _____    | 1,127            |
| Machinery repairs                           | _____    | 1,636            |
| Machine hire                                | _____    | 1,733            |
| Auto expenses (farm share)                  | _____    | 297              |
| Electricity (farm share)                    | _____    | <u>146</u>       |
| TOTAL MACHINERY COSTS                       | \$ _____ | \$ 8,299         |
| Income from machine work                    | \$ _____ | \$ 2,703         |
| NET MACHINERY COST                          | \$ _____ | \$ 5,596         |
| <hr style="border-top: 1px dashed black;"/> |          |                  |
| Acres in crops                              | _____    | 85               |
| Machinery cost per crop acre                | \$ _____ | \$ 66            |
| Man equivalent                              | _____    | 3.8              |
| Machinery cost per man                      | \$ _____ | \$ 1,473         |

All net machinery costs, including depreciation, totaled \$5,596. On the 9 grape farms, machinery costs on a crop acre basis averaged \$66.

Efficiency in the use of equipment is an important factor affecting profits in farming. These equipment costs varied from farm to farm.

\* Does not include housing or repair labor costs.



Chautauqua County Grape Growers  
Summary  
1968

LABOR AND MACHINERY COSTS

Most farm operators justify major machinery purchases as a way to save labor and increase productivity. How well labor and machinery are combined has an important bearing on farm profits.

LABOR AND POWER AND MACHINERY COSTS

| Items   | My Farm  | Average per Farm |
|---|----------|------------------|
| Value of operator's labor*                      | \$ _____ | \$ 4,300         |
| Hired labor                                     | _____    | 13,539           |
| Unpaid family labor                             | _____    | <u>267</u>       |
| TOTAL LABOR COSTS                               | \$ _____ | \$ 18,106        |
| Net power and machinery cost                    | _____    | <u>5,596</u>     |
| TOTAL LABOR & MACHINERY COST                    | \$ _____ | \$ 23,702        |
|   |          |                  |
| Total labor and machinery cost<br>per crop acre | _____    | \$ 279           |
| Total labor and machinery cost<br>per man       | _____    | 6,237            |

\* Valued at a rate of \$5,400 per operator per year. Some operators reported less than one year of labor devoted to the business.

Chautauqua County Grape Growers  
Summary  
1968

|  | <u>My Farm</u> | <u>Average per Farm</u> |
|--|----------------|-------------------------|
| <u>Measures of Size</u>                            |                |                         |
| 1. Acres in bearing grapes                         | _____          | 67                      |
| 2. Acres in non-bearing grapes                     | _____          | 4                       |
| 3. Total acres in fruit                            | _____          | 72                      |
| 4. Total crop acres                                | _____          | 85                      |
| 5. Man equivalent                                  | _____          | 3.8                     |
| 6. Total work units                                | _____          | 977                     |
| 7. Tons grapes produced                            | _____          | 254                     |
| <u>Labor Efficiency</u>                            |                |                         |
| 1. Acres in bearing and non-bearing grapes per man | _____          | 19                      |
| 2. Tons grapes produced per man                    | _____          | 67                      |
| 3. Crop acres per man                              | _____          | 22                      |
| 4. Work units per man                              | _____          | 257                     |
| <u>Rates of Production</u>                         |                |                         |
| 1. Grape yield per acre (tons)                     | _____          | 3.8                     |
| 2. Grape receipts per acre of bearing grapes       | \$ _____       | \$488                   |
| <u>Degree of Specialization</u>                    |                |                         |
| 1. Per cent of work units on grapes                | _____          | 85                      |
| 2. Per cent of all receipts from grapes            | _____          | 62                      |

These business analysis factors show the size of the grape enterprise and its relation to the whole farm business on the 9 farms. They also show measures of labor efficiency and rates of grape production.

A grape producer can gain valuable information about the strong and weak points of his grape enterprise by comparing data from his business with the average on the 9 farms.

Chautauqua County Grape Growers  
Summary  
1968

AN ARRAY OF BUSINESS FACTORS

| Acres of<br>bearing<br>grapes | Total<br>work<br>units | Yield per<br>acre of<br>bearing<br>grapes | Investment per<br>acre of grapes<br>(bearing and<br>non-bearing) | Per cent of<br>total work<br>units on<br>grapes |
|-------------------------------|------------------------|---|--|---|
|                               |                        | (tons)                                    | (dollars)  |   |
| 131                           | 1828                   | 5.0                                       | 1299   | 100   |
| 104                           | 1598                   | 4.8                                       | 1503   | 100   |
| 94                            | 1330                   | 4.5                                       | 1778   | 100   |
| 65                            | 889                    | 4.3                                       | 1831   | 95  |
| 54                            | 865                    | 4.1                                       | 2250   | 94  |
| 45                            | 860                    | 3.8                                       | 2801   | 94  |
| 42                            | 658                    | 3.7                                       | 2884   | 88  |
| 40                            | 446                    | 3.6                                       | 2942   | 74  |
| 24                            | 320                    | 2.7                                       | 3051   | 50  |

## USE YOUR RECORDS

Good farm records are worth many dollars to the farm manager. Here are the most important uses:

A Diary -- In planning work this month and this year, it helps to "check the record" to find out what action was taken last month or last year.

To Analyze the Business -- The operator of a commercial farm business must move fast to keep up-to-date. Good records will show him the strong and weak points of his business. This information provides a foundation on which to make changes to build a more profitable business.

For Tax Purposes -- Tax obligations make it a must to have complete records. Tax dollars can be saved every year by using farm records. Equally important are good records at the time of a sale of part or all of the farm property.

For Family Partnerships -- When a farm is owned and operated by father and son or other family combination, records are necessary for fair treatment of all family members. Good records will settle many disagreements before they start.

For Credit -- Most commercial farm businesses use credit. A record of cash receipts and expenses, together with an annual inventory are required by most lenders. Such records provide for wiser use of farm credit, and better understanding between borrower and lender.

In Case of Family or Business Crises -- At the death of the farm operator, good records can save the heirs time, money, and heartache. Annual inventories are especially important for this purpose. Inventories are also worth a lot in case of a fire or other disaster.

Keeping farm records is only part of the job. Learning to use them is even more important. Don't be satisfied just to meet tax requirements. You owe it to yourself and your business to make greater use of your farm records. They can be your most valuable farm equipment.