

November, 1962

A. E. Res. 106

Economics of Red Currant Production In Western New York, 1962

by

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TABLE OF CONTENTS

	<u>Page</u>
Introduction	1
Major Producing Areas	1
Situation in Western New York	2
Organization of the Study	3
Description of the Farms Studied	4
Location and Size	4
Crops Grown	4
Currant Culture Followed	5
Influence of Imports	6
Costs and Inputs in Growing Red Currants	7
Total Growing Cost.	7
Physical Factors	8
Costs and Inputs in Harvesting Based on Estimated Total Yields	10
Total Harvesting Cost	10
Physical Inputs	12
Production Cost Per Acre Based on Estimated Total Yield	13
Yields	13
Production Cost Per Pound Based on Estimated Total Yield	14
Growing Cost Per Pound	14
Harvesting Cost Per Pound	15
Gross Returns Actually Experienced	16
Net Returns Actually Experienced	16
Break Even Analysis	17
Yields to Break Even	17
Prices to Break Even	19
Summary	21
Conclusions	22

ACKNOWLEDGEMENTS

The author is grateful to Mr. Trenholm D. Jordan, Associate County Agricultural Agent of Chautauqua County, New York for his assistance and advice during the study.

The red currant growers, whose cooperation made this study possible, receive sincere thanks.

The study was conducted under the general direction of Professor B. A. Dominick, Jr.

INTRODUCTION

Major Producing Areas

Data presented in the 1959 Census indicate that New York is the nation's largest producer of red currants followed by the State of Washington (table 1). This was also true for 1954, but may change in the near future as the trend in New York State's acreage is downward while Washington's acreage appears to be increasing slightly. Recent data indicate that estimated currant production in 1962 in Washington was 858 thousand pounds compared with 781 thousand pounds as an annual average during 1951-60.^{1/}

Table 1. RED CURRANT PRODUCTION IN SELECTED STATES, 1954 and 1959

State ^{1/}	Production		Per cent of total	
	1959	1954	1959	1954
	(thousand pounds)			
New York	855	1,811	43	56
Washington	687	712	35	22
Michigan	284	416	14	13
California	67	156	3	5
Pennsylvania	51	142	3	4
Oregon	44	13	2	*
Total	<u>1,988</u>	<u>3,250</u>	<u>100</u>	<u>100</u>

^{1/} Production for New York, Michigan and Pennsylvania reported in quarts and converted to pounds by dividing by 1.4.

* Less than one per cent.

Source: U. S. Census.

Yield per acre varies greatly from year to year (table 2). The average yield for these six States for the five reporting years from 1929 to 1959 was 2,342 pounds per acre. New York's average yield for these years was 2,395 pounds per acre, about the same as the over-all average.

Table 2. RED CURRANT YIELDS IN SELECTED STATES, 1954 and 1959

State	Yield per acre	
	1959	1954
	(pounds)	
New York	2,175	3,353
Washington	2,726	2,990
Michigan	2,104	1,999
California	2,802	3,456
Pennsylvania	1,948	3,013
Oregon	990	2,548

Source: U. S. Census.

^{1/} The Fruit Situation, published by the Economic Research Service, U.S.D.A., Washington, D.C., August, 1962, p.33.

The farm value of red currants showed a decline from 1954 to 1959 in all States except Washington and Oregon (table 3). Red currants are not a crop of great value as compared with many other crops, but it is one which is quite important in some areas.

Table 3. FARM VALUE OF RED CURRANTS IN
SELECTED STATES
1954 and 1959

State	Farm Value	
	1959	1954
	(thousand dollars)	
New York	183	323
Washington	76	57
Michigan	55	74
California	7	16
Pennsylvania	11	30
Oregon	5	1

Situation in Western New York

The situation in Western New York State can be described by expressing the feeling held by some of the producers in this area. Their feeling is one of doubt concerning the future of producing red currants. This is caused by two primary factors with which they are being faced when they attempt to sell their product. They are lack of market outlets and relatively low prices. The market problem, although it does not face every grower in this area to the same extent, is a serious one as many producers have been faced with no sales outlet for their currants. This situation has forced some producers to leave their crop on their bushes or convert their crop to juice and hold it in this form for as long as a year in order to facilitate a sale. The price problem is also one which is causing much concern among the growers in Western New York. The prices which have been paid to red currant producers have tended to move in a rather violent cyclical pattern since 1940. Although recent prices offered have not been as low as in some other years, they have none the less, caused great concern among producers.

There seems to be several reasons behind the decline in market outlets for red currants. The most obvious is a total nationwide reduction in demand. A second reason caused by a regional factor is that red currants were being produced, in many cases, under five- to seven-year contracts with processors. These contracts are now terminating and processors, finding themselves faced with a decrease in demand, are not interested in such large quantities of raw product. Because many of these contracts ran out during the same year, it caused quite an impact over a short period of time. Instead of a gradual demand adjustment over a period of several, or many years, the adjustment has been taking place over a shortened period, thus increasing the impact on growers.

These contracts were originally initiated by producers for the purpose of attempting to level out the radical year-to-year movement of currant prices at the grower-processor level so that a more steady price could be applied to the final product on the store shelf. The majority of the contracts contained a base price clause of ten cents per pound to the growers. This fact also has implications in that imported red currant concentrates can presently be purchased at a price very close to ten cents per pound.

These problems have caused varied reactions among growers. In the sample of growers studied, and in interviews with other farmers in the region, there are three major reactions to this price-demand situation. The producers who have retained a market for their crop continue to perform their usual cultural practices. The majority of these growers do, however, show an interest knowing the costs of producing the crop. A second reaction is to reduce cultural practices in varying extents in an attempt to lower costs. This reaction is most apparent among those who did find a market for their currants, or a portion of them, in the 1961 harvest season. The reductions of cultural practices varied from leaving out one or two of the recommended practices to doing nothing except keeping the weeds down. The third major reaction by some growers was to remove currant plantings in varying quantities, ranging from a portion of their acreage to complete removal.

Organization of the Study

Because prices for red currant production have been declining to a point where producers in Chautauqua County are questioning their profitability, it was decided to gain information on costs and returns for this specific crop. At the same time, it was felt to be desirable to study the red currant industry as a whole so that a more realistic appraisal could be made of the situation.

Specifically the objectives were:

1. To arrive at production and harvesting costs for red currants in Chautauqua County and to determine yield and price break even points.
2. To study the marketing situation presently facing currant growers.
3. To analyze the impact of imported currant products upon the demand for domestic currants.

The entire sample of farms included in the cost study were located in or near Chautauqua County. The sample was selected at a meeting of currant growers held in April, 1962 at Fredonia, New York, with Mr. Trenholm D. Jordan, Associate County Agricultural Agent of Chautauqua County, leading the discussion pertaining to the problems facing growers. In attendance were 31 growers representing approximately 194 acres of currant production. Seventeen of these 31 growers, representing 133 acres of red currant production, expressed the desire to participate in the study. The currant acreage on these farms ranged in size from one acre to 35 acres (table 4).

Table 4. DISTRIBUTION OF FARMS STUDIED BY ACRES OF CURRANTS
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Acres of currants	Number of farms
1 - 5	8
6 - 10	6
11 - 15	2
16 and over	1

Following the selection of the sample, growers were notified that there would be an enumerator visiting their farms during June to obtain the cost of production data covering the period from immediately following the 1961 harvest to the date of visit.

Harvesting costs were obtained by an enumerator during the latter part of July, as well as all production expenses incurred since the first visit. Costs related to 1962 harvest, not yet incurred, were estimated by the growers and used as components of the final cost figures.

Information of the descriptive type concerning the marketing situation, national and international, was gained by interviews, questionnaires and letters sent to farmers, processors, brokers, State Colleges and United States Agricultural Attaches.

Description of the Farms Studied

Location and Size

The majority of the farms studied were located in Chautauqua County, New York, within five miles of Lake Erie. One was located in Erie County, New York and one other in northeastern Pennsylvania. Both of these farms were also located in close proximity to Lake Erie. The total acreages operated on the farms studied varied widely. Three growers operated less than 50 acres while four farms had 200 or more acres of farm land.

Crops Grown

The farms were located in an area producing primarily small fruits and vegetables (table 5). There was no livestock of consequence raised on the farms studied. Only two varieties of currants were grown, the Red Lake and the Wilder. There was approximately two acres of Red Lake for every one of Wilder.

Table 5. AVERAGE DISTRIBUTION OF CROPS IN TERMS OF ACRES
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Crop	My farm	Acres	Crop	My farm	Acres
Currants	—	7.8	Snap beans	—	47.3
Grapes	—	46.7	Other vegetables	—	2.0
Cherries	—	2.9	Hay	—	8.7
Peaches	—	1.3	Grain	—	21.0
Strawberries	—	5.8	Other	—	7.9
Other fruit	—	2.8	Total cropland	—	174.5
Tomatoes	—	20.3			

Currant Culture Followed

Plant spacing varied widely among growers. The spacing between bushes in a row varied from one and one-half to six feet and the spacing between rows varied from eight to eighteen feet. The most common planting distances were two by nine and three by nine feet. The variability in planting distances caused a great range in bushes per acre. The minimum number of bushes per acre was 807 and the maximum was 2,420.

The larger planting patterns were initiated by growers so that they could make better use of the mechanical hoe and reduce hand hoeing to a minimum. These patterns, however, limit the number of bushes and therefore yield per acre. The general feeling is that the nine foot spacing between rows is the most desirable because it allows the maximum number of rows while retaining sufficient space for tractor operation.

Many of the growers had reduced their cultural practices in an effort to lower costs of production. The spray schedule recommended by the Chautauqua County Extension Service was followed in most instances. Pruning and trimming the currant bushes was found to be a practice that was not extensively followed because the majority of the growers seemed to feel that this was a non-essential practice. Cover crops were extensively used and rye grass was the most common. This crop was disked under in the late spring. Mulching was not commonly used as disking and hoeing were used as weed control. The hoe used most extensively was the tractor mounted grape hoe. Hand hoeing was also done on some farms, but was generally not preferred because of the labor savings accrued by use of the mechanical hoe. The soil which was used for red currant plantings varied, gravel soils being the most common. On the farms studied, 48 acres of currants were planted on gravel, 48 acres on gravelly loam, 20 on clay loam, 12 acres on loam and 4 acres were planted on sandy loam. Most of the soils were well drained and dry quickly and they generally permit easy root penetration. Growers generally felt that currants were a crop that fit into their labor and equipment utilization plans very well.

INFLUENCE OF IMPORTS

When dealing with the international situation, it is extremely important to keep in mind that the crop under analysis is red currants. There also exist white and black currants which may easily be included in any published material on currants. There is also what is often termed dried "currants" which in most instances are not currants, but are grapes, usually of the Corinth variety. These factors make any study of published international figures relative to red currant acreage, production and often exports from overseas very difficult to analyze and validate.

From information which is available, it appears that Holland is the most significant country in exports of red currant juices and concentrates to the Northeastern part of the United States. In 1960, Holland's acreage in red currants stood at 3,888 acres which was their largest reported acreage shown in a series of figures beginning in 1952. Their commercial production stood at 13.1 million pounds or an average of 3,386 pounds per acre which is a good deal above the average per-acre production in the United States.

The present yield in Holland of red currants grown in the open is 11,000 pounds per acre. The yield for red currants grown under apple and pear trees is 3,960 pounds per acre.^{1/} Dutch growers generally sell their red currants at auction. Average per-pound prices received for the past four years were: 1958, 12.7 cents; 1959, 10.7 cents; 1960, 9.4 cents and 1961, 7.5 cents.^{2/ 3/} The extremely low price in 1961 was due to above-average production for that year. It is estimated that the 1962 crop was below 1961 production by from 15 to 20 per cent.^{4/} Auction prices in 1962 were approximately 10 cents per pound.^{5/} With yields in Holland being what they are, it seems that the Dutch grower is willing to continue production experiencing a price of approximately nine to ten cents per pound for his fruit. When a transport rate of approximately 1.3 cents per pound is added, the delivered price to New York City becomes approximately 10 to 11 cents per pound on the basis of fresh fruit.

Currants products, however, are shipped in a frozen concentrated form. When concentrated, the currants are sold on a Brix basis. Prices have recently been quoted at \$4.75 per gallon for 30 Brix imported concentrate and \$8.00 per gallon for 50 Brix imported concentrate (F.O.B. New York, New York). Some approximate price comparisons can be made on the basis of 178 pounds of soluble solids. When using a 30 Brix imported concentrate at \$4.75 per gallon, the estimated cost for 178 pounds of fruit solids becomes \$300. When using a 50 Brix imported concentrate at \$8.00 per gallon, the cost is estimated to be \$278. Domestic raw fruit at an estimated level of 10.5 Brix at 10 cents per pound requires an estimated expenditure on the part of an efficient domestic processor of approximately \$262 to obtain 178 pounds of fruit solids. The exact level of the average costs or the range in costs among domestic processors is not known.

^{1/} Correspondence with Mr. George A. Parks, U.S. Agricultural Attache, Foreign Agricultural Service, U.S.D.A.

^{2/} Ibid.

^{3/} Using exchange rate of one Guilder equals \$0.28.

^{4/} Parks, op. cit.

^{5/} Correspondence with the Royal DeBature Company Ltd. Tiel, Holland.

These figures, however, provide a general insight into the competition which the New York State grower is facing from overseas. Although imported currant concentrate costs more for the same quantity of soluble solids in the example just cited, this difference is not great and it varies with domestic and foreign cost and price and production and processing efficiency changes. If the overseas grower continues to produce currants at the previously indicated price level, the domestic growers may be faced with continued competition.

COSTS AND INPUTS IN GROWING RED CURRANTS

Total Growing Cost

Although yields were reduced by frost in the spring of 1962, most of the operations in producing the crop were carried on in a normal manner. However, due to the price situation some inputs were reduced by a few of the growers in the sample.

The average cost of bringing one acre of red currants up to the point of harvest in 1962 on the 17 farms studied was \$140 per acre.^{1/} There was a range on the farms studied of from \$76 per acre to \$228 per acre (table 6).

Table 6. DISTRIBUTION OF TOTAL GROWING COSTS FOR ONE ACRE OF RED CURRANTS
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Cost	Number of farms	Cost	Number of farms
Less than \$99	1	\$160 - \$179	2
100 - 119	5	180 - 199	1
120 - 139	5	200 - 219	1
\$140 - 159	1	\$220 or more	1

The major components of growing costs were labor, power, spray materials, fertilizer, land, special equipment, overhead, interest and other miscellaneous items (table 7). The item of greatest cost in the production of the crop was the cost of land.

The average labor cost for growing the 1962 red currant crop on the 17 farms studied was \$35 per acre with a range of from 13 to \$85 per acre. Power is the term used to include tractor, truck and auto costs. The average power cost for growing one acre of red currants on the farms studied was \$13. Standard rates were used in computing operation costs. All growers but one sprayed their currant plantings. The average cost of spray materials for the 16 farms spraying was \$14 per acre while the average for the entire sample was \$13 per acre. Fertilizer was applied by 15 of the 17 growers interviewed and the average cost for these enterprises was \$15 per acre.

^{1/} The figures presented on average costs, yields and prices are simple averages of individual enterprises and not the weighted averages for the entire production on the 17 enterprises.

Table 7.

AVERAGE COSTS OF COMPONENTS IN GROWING
ONE ACRE OF RED CURRANTS
(17 Western New York and Eastern
Pennsylvania Farms, 1962)

Item	My farm	Average for 17 farms	Range
Labor	\$ _____	\$ 35	\$13 - \$85
Power	_____	13	4 - 24
Land	_____	43	13 - 65
Fertilizer	_____	14	0 - 29
Special equipment	_____	10	3 - 26
Spray materials	_____	13	0 - 36
Cover crops	_____	2	0 - 4
Interest	_____	1	* - 3
Overhead	_____	7	4 - 11
Others**	_____	2	0 - 28
Total	\$ _____	\$140	- -

* Less than one dollar.

** Includes such items as custom work, bushes purchased, irrigation, gas for sprayer and straw.

Only one grower cash rented his currant acreage. The remainder of the growers were asked to estimate what they would have paid to rent a red currant planting of similar quality. Many of the growers had very little basis for making this estimate. They were then asked to place a current market value on their currant plantings. Land was then charged at ten per cent of this estimated market value to cover interest, taxes and maintenance. The average land charge for all enterprises was \$43 per acre.

The average special equipment charge to the 1962 red currant crop for the 17 farms studied was \$10 per acre. This consisted mainly of equipment used in the production of grapes on the farms studied and included such items as the sprayer, mechanical hoe, fertilizer and seed spreader, brush chopper and disks. A cover crop was planted by 12 of the growers interviewed.

Interest on growing costs was charged to all items of cost for which interest had not been previously charged. A two per cent interest rate was charged since this amount best reflected the period of investment.

Physical Factors

The physical inputs in growing the 1962 red currant crop on the 17 farms studied included labor, power, special equipment, fertilizer, spray materials, cover crop and other.

Labor is a flexible input in red currant production. The greatest areas of flexibility are in the trimming and hand hoeing operations. Machinery is quite easily substitutable when hoeing is in question. The average number of

hours spent in growing the red currant crop on the farms studied was 26 hours per acre with a range of from ten to 62 hours. Labor hired by the hour amounted to 9.8 hours while regular hired labor accounted for 8.7 hours. Operators spent an average of 6.3 hours per acre in growing the crop. Family labor accounted for the remainder (table 8).

Table 8. LABOR INPUTS TO GROW ONE ACRE OF RED CURRANTS
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Description	My farm	Average for 17 farms	Number of farms using	Average for farms using
		hours		hours
Operator	—	6.3	17	6.3
Family	—	0.9	2	7.7
Hired - regular	—	8.7	11	13.5
Hired - hourly	—	9.8	15	11.1

The term "power" is used to include tractor hours, truck and auto miles used in the production of the 1962 red currant crop on 17 farms studied. Table 9 presents an analysis of power used on these farms.

Table 9. POWER INPUTS TO GROW ONE ACRE OF RED CURRANTS
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Description	My farm	Average for 17 farms	Number of farms using	Average for farms using
		hours		hours
Tractor hours	—	12.5	17	12.5
Large truck-miles*	—	0.6	6	1.6
Small truck-miles**	—	5.4	11	8.3
Auto miles	—	13.3	11	20.6

* Large means over 1 ton.

** Small means 1 ton or under.

All but two of the growers applied some commercial fertilizer to their currant plantings. The most commonly used fertilizer was ammonium nitrate. It was used exclusively on nine of the farms studied. Two growers used sodium nitrate exclusively. One grower used 10-10-10 exclusively.

Table 10. AVERAGE RATES OF FERTILIZER APPLICATIONS
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Commercial fertilizer	My farm	Pounds per acre	Range in pounds per acre
Ammonium Nitrate	—	334	200 - 610
Nitrate of soda	—	500	250 - 750
Sulfate of potash	—	562	800 - 825
10-10-10	—	278	155 - 400

Many types of spray materials were used, most of which were included in the 1961 and 1962 Chautauqua County Spray Schedule recommendations. Because of the uncertainty of the profitability of the crop and the wet spring along with an earlier than normal harvest, full spray schedules were not applied by all growers. One grower did no spraying, one sprayed once, five sprayed two or three times, four sprayed four times, five growers applied five sprays and one grower sprayed six times.

A cover crop, generally rye, was used on 12 of the 17 farms studied. The average application rate for the 12 farms using a cover crop was 1.6 bushels per acre. Manure was not commonly applied. Where it was applied, the average amount was about nine tons per acre. Irrigation was used on only one farm, and custom work was used in very small quantities on two farms. Bushes were purchased by three growers in a quantity of about 50 per farm.

COSTS AND INPUTS IN HARVESTING BASED ON ESTIMATED TOTAL YIELDS

Two factors of great importance must be noted when analysis is made of harvesting costs and physical inputs. The first factor is that of yield. The 1962 crop was quite severely reduced by frost. The average estimate by the growers interviewed was that the crop was 70 per cent of a normal one with individual estimates ranging from 33 to 100 per cent. Therefore, the harvesting costs and inputs presented in this section must be considered with this factor in mind.

The second factor is that only eight of the 17 growers interviewed harvested all of their 1962 currant crop. The figures on harvesting costs include estimates of costs by nine growers who did not harvest their entire crops. This includes all inputs which would have been required to complete a total harvest had these nine growers had a place of sale or felt it to be profitable to complete the harvest.

Total Harvesting Cost

The average cost of harvesting one acre of red currants on the 17 enterprises studied was \$210 per acre. There was a range of from 100 to \$363 per acre (table 11).

Table 11. DISTRIBUTION OF HARVESTING COSTS
FOR ONE ACRE OF RED CURRANTS
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Cost	Number of farms	Cost	Number of farms
\$100 - \$149	6	\$250 - \$299	3
150 - 199	1	300 - 349	1
200 - 249	5	350 and over	1

Table 12 presents the average costs of the components used in harvesting one acre of red currants in 1962.

Table 12. AVERAGE COSTS OF COMPONENTS IN
HARVESTING ONE ACRE OF RED CURRANTS
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Input	My farm	Average for 17 farms	Range
Piece-work labor	\$ _____	\$167	\$67 - \$334
Other labor	_____	30	9 - 62
Power	_____	9	1 - 19
Overhead and other	_____	4	2 - 11
Total	\$ _____	\$210	- -

The average labor cost for hourly paid labor in harvesting the 1962 crop was \$30 with a range of from 9 to \$62 per acre.

Piece-work labor is that labor which picked the fruit. Payment was made on the basis of the pounds of fruit that an individual picked and varied with yield when computed on a per-acre basis. The average cost of this labor in harvesting the 1962 red currant crop was \$167 per acre with a range of from \$67 to \$334 per acre, depending on yield and price paid. Picking costs by this labor average 4.7 cents per pound for the 17 farms with a range of from 3.5 to 5.5 cents per pound.

The average cost of power in harvesting the crop was \$9 per acre with a range of from one to \$19 per acre. The rates used in computing these costs are identical to those used in computing power cost for growing the crop.

Containers, in most instances, were supplied by the purchaser of the fruit. Three growers supplied their own containers. Overhead was charged on the total harvesting cost at the rate of two per cent to cover general overhead expenses incurred.

Physical Inputs

The physical inputs used in harvesting were labor, power, and containers. These physical inputs will be treated in this section such as they were in the section covering growing. Again it must be remembered that two factors affect the presentation of physical inputs. These two factors as previously discussed are: (1) that the 1962 yield was only 70 per cent of normal, and (2) that nine of the growers estimated inputs to arrive at complete harvest data.

Labor was divided into two major categories. The first is that of non-piece work labor. Other labor is that of the operator, family, regular-hired and hourly-hired personnel. The average time devoted by this labor segment was 21.2 hours per acre with a range of from 6.7 to 53 hours per acre.

Operator labor, which average 9.0 hours per acre, was mainly devoted to supervision, weighing, loading and delivering the fruit to the place of sale (table 13). Family labor, which averaged 5.3 hours per acre on the 17 farm basis, was used on six of the farms studied. The primary use of this labor was in supervision, weighing and loading. Regular hourly labor, which averaged 4.8 hours per acre on the 17 farms, was actually used on nine farms. Its principal duties were generally the same as the operator's. Hourly hired labor, which was used on six of the farms, averaged 2.2 hours per acre on the 17 farm basis. This labor was used primarily for weighing and loading.

Table 13. LABOR INPUTS TO HARVEST ONE ACRE OF RED CURRANTS
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Description	My farm	Average for 17 farms	Number of farms using	Average for farms using
		hours per acre		hours per acre
Operator	—	9.0	16	9.6
Family	—	5.3	6	15.0
Hired, Regular	—	4.8	9	9.0
Hired, Hourly	—	2.2	6	6.1

Power inputs in harvesting the currant crop consisted mainly of truck miles (table 14). Tractors were used on six farms. They were employed in picking up fruit in the field and moving it to the truck loading area.

Table 14. POWER INPUTS TO HARVEST ONE ACRE OF RED CURRANTS
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Description	My farm	Average for 17 farms	Number of farms using	Average for farms using
Tractor hours	—	.3	6	.7
Small truck miles*	—	39.1	16	41.5
Large truck miles**	—	20.3	10	34.5
Auto miles	—	2.1	4	9.0

* one ton or under

** more than one ton

Small trucks (one ton or under) were mainly used in the transport of fruit and containers. Large trucks also used in transport of containers and fruit, and occasionally laborers. They were used at an average rate of 20 miles per acre.

PRODUCTION COST PER ACRE
BASED ON ESTIMATED TOTAL YIELDS

Total production cost per acre represents the total cost to grow and harvest one acre of red currants on the 17 enterprises studied. The average total production cost for the individual enterprises was \$350 per acre with a range of from \$210 to \$591 per acre (using estimated total harvesting costs). Table 15 presents the distribution of enterprises within specified ranges of total production costs.

Table 15. DISTRIBUTION OF TOTAL COSTS TO PRODUCE
ONE ACRE OF RED CURRANTS
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Cost	Number of farms	Cost	Number of farms
\$200 - \$249	6	\$400 - \$449	3
250 - 299	-	450 - 499	2
300 - 349	1	\$500 or more	1
\$350 - \$399	4		

Yields

Although the 1962 crop was quite severely reduced by frost, the estimated total yields per farm varied from less than 2,000 pounds to over 6,000 pounds per acre. Table 16 presents a distribution of yields as realized on the 17 farms.

Table 16. DISTRIBUTION OF ESTIMATED TOTAL YIELD
OF RED CURRANTS PER ACRE
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Yield pounds	Number of farms	Yield pounds	Number of farms
1,000 - 1,999	3	4,000 - 4,999	1
2,000 - 2,999	3	5,000 - 5,999	2
3,000 - 3,999	6	6,000 or more	2

The yields as presented in Table 16 are the estimated total yields. These yields were not harvested in all cases. Table 17 presents the poundage actually harvested per acre on each of the 17 enterprises.

Table 17. DISTRIBUTION OF QUANTITY HARVESTED PER ACRE
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Yield pounds	Number of farms	Yield pounds	Number of farms
Under 999	4	4,000 - 4,999	1
1,000 - 1,999	3	5,000 - 5,999	2
2,000 - 2,999	4	6,000 or more	1
3,000 - 3,999	2		

When tables 16 and 17 are compared, one can see a substantial difference between the total estimated yield and quantity actually harvested. The estimated yields on the 17 farms averaged 3,722 pounds per acre while the amount harvested on the individual enterprises averaged 2,678 pounds per acre.

Production Cost Per Pound Based
On Estimated Total Yields

The total production cost on a per-pound basis using estimated total yields for the 17 farms studied averaged 10.5 cents per pound with a range of from 6.5 to 15.8 cents per pound (table 18).

Table 18. DISTRIBUTION OF PRODUCTION COSTS
PER POUND OF RED CURRANTS
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Cost cents	Number of farms	Cost cents	Number of farms
Under 6.9	2	11 - 11.9	2
7 - 7.9	2	12 - 12.9	1
8 - 8.9	-	13 - 13.9	1
9 - 9.9	2	14 or more	2
10 - 10.9	5		

Growing Cost Per Pound

The growing cost, when computed on the 1962 estimated total yield basis, averaged 4.4 cents per pound for the 17 enterprises with a range of from 2.1 to 7.8 cents per pound.

Table 19. DISTRIBUTION OF PER-POUND GROWING COSTS OF RED CURRANTS
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Cost cents	Number of farms	Cost cents	Number of farms
2.0 - 2.9	3	5.0 - 5.9	2
3.0 - 3.9	4	6.0 - 6.9	1
4.0 - 4.9	5	7.0 or more	2

Harvesting Cost Per Pound

The average harvesting cost on the 17 enterprises studied in 1962 was 6.1 cents per pound based on total estimated yields with a range of from 4.2 to 8.3 cents per pound.

Table 20. DISTRIBUTION OF PER-POUND HARVESTING COSTS OF RED CURRANTS
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Cost cents	Number of farms	Cost cents	Number of farms
4.0 - 4.9	4	7.0 - 7.9	2
5.0 - 5.9	3	8.0 or more	1
6.0 - 6.9	7		

Only three of the 17 growers realized a net profit on their currant enterprise. Because growers may want to base their decision to produce currants on factors other than pure profitability of this crop, two items of costs, the operator's labor (\$21) and land (\$43) were excluded from the costs. The resulting figures indicated returns to operator's labor, land and management.

Table 21. AVERAGE PER-ACRE RETURNS TO OPERATOR'S LABOR, LAND AND MANAGEMENT
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Item of cost or return	My farm	Value
Growing cost	\$ _____	\$140
Harvesting cost	_____	152
Total production cost	_____	292
Total returns	_____	217
Net returns	_____	\$-75
Value of operator's labor and land	_____	64
Returns to operator's land, labor and management	_____	\$-11

The presentation in table 22 may well be superior to the presentation of net returns in table 24 as an indication to the currant grower of the results experienced from the 1962 red currant crop. It shows that five growers realized a profit while 12 did not profit by this enterprise when the value of the operator's labor and land was not included in costs.

Table 22. DISTRIBUTION OF PER-ACRE RETURNS TO OPERATOR'S LABOR, MANAGEMENT AND LAND

Profit		Loss	
Return	Number of farms	Return	Number of farms
Less than \$50	1	Less than \$50	9
50 - 99	2	50 - 99	2
100 - 125	2	100 - 125	1

GROSS RETURNS ACTUALLY EXPERIENCED

Gross returns in 1962 varied greatly depending on yield and the ability of the individual growers to sell their fruit. The individual gross returns on the 17 farms averaged \$217 per acre. There was a range of from less than \$50 on one farm where yield was low and picking difficult to \$594 per acre on one enterprise where yield was high and the entire crop was marketed.

Table 23. DISTRIBUTION OF GROSS RETURNS PER ACRE (17 Western New York and Eastern Pennsylvania Farms, 1962)

Gross return	Number of farms	Gross return	Number of farms
Under \$49	3	\$250 - \$299	2
50 - 99	2	300 - 349	1
100 - 149	2	350 - 399	1
150 - 199	3	400 - 449	1
200 - 249	-	Over \$450	2

NET RETURNS ACTUALLY EXPERIENCED

Because of reduced yields and the market situation, low net returns were realized on the majority of the enterprises studied. The average loss per acre for the 17 enterprises was \$75. Net returns ranged from a loss of \$181 to a profit of \$82 per acre using costs actually experienced by the growers (table 24).

Table 24. DISTRIBUTION OF ACTUAL NET RETURNS PER ACRE
(17 Western New York and Eastern Pennsylvania Farms, 1962)

Profit		Loss	
Net return per acre	Number of farms	Net return per acre	Number of farms
		Less than \$50	2
Less than \$50	1	50 - 99	6
50 - 99	2	100 - 149	3
		150 or more	3

BREAK EVEN ANALYSIS

Yields to Break Even

The yield of red currants which must be realized by growers experiencing various levels of production costs and prices received to break even can be readily determined. The growing costs used here in the examples are the same, or similar to, those experienced by growers included in the study.

The formula used to derive the yields necessary to break even requires that the grower is able to accurately estimate growing costs per acre, harvesting costs per pound and the price which he will receive.

The formula for estimating break even yield is:

$$\begin{array}{rcl}
 \begin{array}{l} \text{Price} \\ \text{per} \\ \text{pound} \end{array} & - & \begin{array}{l} \text{Harvesting cost} \\ \text{per} \\ \text{pound} \end{array} & = & \begin{array}{l} \text{Difference per pound} \\ \text{to apply towards} \\ \text{growing costs} \end{array} \\
 \\
 \frac{\begin{array}{l} \text{Growing costs per acre } \$ \\ \text{Difference per pound to} \\ \text{apply towards growing} \\ \text{costs} \end{array}}{\quad} & = & \frac{\quad}{\quad} & & \begin{array}{l} \text{Yield necessary to} \\ \text{break even (pounds)} \end{array}
 \end{array}$$

This formula gives a result in pounds which must be harvested and sold to cover costs alone. If one is to profit by the enterprise, he must realize a yield greater than that which is indicated by the above formula.

Tables 25 through 27 present the saleable yields which must be realized on a per-acre basis, to break even with various harvesting costs, growing costs and prices. Table 25 presents yields which must be realized, at the six cents per pound harvesting cost level. The 1962 harvest cost on the 17 individual operations averaged 6.1 cents per pound based on total estimated yield. Comparisons may be made from this table using various prices and levels of growing costs to find yields that must be harvested and sold to break even.

Table 25. YIELDS OF RED CURRANTS NECESSARY TO BREAK EVEN WITH HARVEST COSTS OF 6.0 CENTS PER POUND AND VARIOUS LEVELS OF PRICES AND GROWING

Price per pound of saleable red currants cents	Harvesting cost per pound cents	Difference to apply toward growing costs cents	Yield necessary to break even with growing costs per acre of:		
			\$110	\$140	\$200
			pounds		
8	6	2	5,500	7,000	10,000
10	6	4	2,750	3,500	5,000
12	6	6	1,833	2,333	3,333
14	6	8	1,375	1,750	2,500
16	6	10	1,100	1,400	2,000

If harvesting costs could be reduced to four cents per pound, break even yields would be reduced considerably as can be seen in Table 26.

Table 26. YIELDS OF RED CURRANTS NECESSARY TO BREAK EVEN WITH HARVEST COSTS OF 4.0 CENTS PER POUND AND VARIOUS LEVELS OF PRICES AND GROWING COSTS

Price per pound of saleable red currants cents	Harvesting cost per pound cents	Difference to apply toward growing costs cents	Yield necessary to break even with growing costs per acre of:		
			\$110	\$140	\$200
			pounds		
6	4	2	5,500	7,000	10,000
8	4	4	2,750	3,500	5,000
10	4	6	1,833	2,333	3,333
12	4	8	1,375	1,750	2,500
14	4	10	1,100	1,400	2,000
16	4	12	917	1,167	1,667

Table 27 presents yields which must be realized to break even with varying growing costs and prices when harvesting costs are seven cents per pound.

Table 27. YIELDS OF RED CURRANTS NECESSARY TO BREAK EVEN WITH HARVESTS COSTS OF 7.0 CENTS PER POUND AND VARIOUS LEVELS OF PRICES AND GROWING COSTS

Price per pound of saleable red currants cents	Harvesting cost per pound cents	Difference to apply towards growing costs cents	Yield necessary to break even with growing costs per acre of:		
			\$110	\$140	\$200
			pounds		
8	7	1	11,000	14,000	20,000
10	7	3	3,667	4,667	6,667
12	7	5	2,200	2,800	4,000
14	7	7	1,511	2,000	2,857
16	7	9	1,222	1,556	2,222

Prices to Break Even

The average price which the grower must receive for his saleable red currants in order to break even on all costs can easily be determined when the grower knows his growing cost per acre, harvesting cost per pound and yield per acre. This formula is:

$$\text{Harvesting cost per pound} \times \text{Yield (pounds)} = \text{Harvesting cost per acre}$$

Harvesting cost per acre	\$ _____
+	
Growing cost per acre	\$ _____
Total production cost	\$ _____

$$\frac{\text{Total Production cost}}{\text{Yield per acre (lbs.)}} = \text{Price per pound necessary to break even}$$

Tables 28 through 30 present the prices which must be received, on a per-pound basis, to break even with various harvesting costs, growing costs, and yields. Table 28 presents prices which must be received to break even with harvesting costs of six cents per pound, similar to the average cost realized, with various levels of growing costs and yields.

Table 28. PRICES OF RED CURRANTS NECESSARY TO BREAK EVEN
WITH HARVEST COSTS OF 6.0 CENTS PER POUND AND VARIOUS
LEVELS OF GROWING COSTS AND YIELDS

Yield of saleable red currants per acre pounds	Harvesting cost per pound cents	Prices necessary to break even with growing costs per acre of:		
		\$110	\$140	\$200
		cents per pound		
2,000	6	11.5	13.0	16.0
3,000	6	9.7	10.7	12.7
4,000	6	8.8	9.5	11.0
5,000	6	8.2	8.8	10.0
6,000	6	7.8	8.3	9.3
7,000	6	7.6	8.0	8.8
8,000	6	7.4	7.8	8.5
9,000	6	7.2	7.6	8.2
10,000	6	7.1	7.4	8.0

Prices which must be received to break even with harvesting costs of four and seven cents per pound with varying levels of growing costs and yields are presented in Tables 29 and 30.

Table 29. PRICES OF RED CURRANTS NECESSARY TO BREAK EVEN
WITH HARVEST COST OF 4.0 CENTS PER POUND AND
VARIOUS LEVELS OF GROWING COSTS AND YIELDS

Yield of saleable red currants per acre pounds	Harvesting cost per pound cents	Price necessary to break even with growing costs per acre of:		
		\$110	\$140	\$200
		cents per pound		
2,000	4	9.5	11.0	14.0
3,000	4	7.7	8.7	10.7
4,000	4	6.8	7.5	9.0
5,000	4	6.2	6.8	8.0
6,000	4	5.8	6.3	7.3
7,000	4	5.6	6.0	6.8
8,000	4	5.4	5.8	6.5
9,000	4	5.2	5.6	6.2
10,000	4	5.1	5.4	6.0

Table 30. PRICES OF RED CURRANTS NECESSARY TO BREAK EVEN WITH HARVEST COSTS OF 7.0 CENTS PER POUND AND VARIOUS LEVELS OF GROWING COSTS AND YIELDS

Yield of saleable red currants per acre pounds	Harvesting cost per pound cents	Price necessary to break even with growing costs per acre of:		
		\$110	\$140	\$200
		cents per pound		
2,000	7	12.5	14.0	17.0
3,000	7	10.7	11.7	13.7
4,000	7	9.8	10.5	12.0
5,000	7	9.2	9.8	11.0
6,000	7	8.8	9.3	10.3
7,000	7	8.6	9.0	9.8
8,000	7	8.4	8.8	9.5
9,000	7	8.2	8.6	9.2
10,000	7	8.1	8.4	9.0

SUMMARY

Western New York State red currant growers are facing a serious problem in finding market outlets for their crop. This problem is further complicated by a level of prices which did not allow many of the growers interviewed to show a profit on red currants.

To learn more about the problems facing the commercial red currant growers, a cost of production study and a descriptive study of the industry was conducted in 1962. The cost of production study analyzed the red currant enterprises on 17 farms. Information for the descriptive industry study was collected by the use of questionnaires, letters, and interviews with growers, processors, universities, bakers, importers, and agricultural attaches.

Production costs were studied in terms of physical and monetary inputs and they were presented on a per-acre and per-pound basis. Growing costs, up to the point of harvest averaged approximately \$140 per acre. Harvesting costs averaged about \$210 per acre. Harvesting costs, when presented on a per-pound basis using total estimated yield (total yield was harvested in only eight of the 17 enterprises) averaged 6.1 cents per pound. Total production costs using estimated total yield averaged 10.5 cents per pound on the 17 farms studied with a range of from 6.5 to 15.8 cents per pound. Because of low yields and the market situation, low net returns were experienced by most of the producers. Only three growers experienced a positive net return. Actual net returns ranged from a loss of \$181 to a profit of \$82 per acre.

There was quite a variance between the quantity actually harvested and the total yield estimated by the growers. The average harvest was 2,678 pounds per acre while the average estimated total yield was 3,722 pounds per acre.

Imports, or the availability of imported currant concentrates (primarily from Holland), appear to be capable of affecting price offered to New York State growers. It is reported that imported red currants can, at present, be purchased, F.O.B. New York City, for approximately ten cents or slightly higher per pound (fresh fruit basis). It also appears that growers in the Northwest have completely met market requirements and are in closer competition with New York State producers.

CONCLUSIONS

Because New York State red currant growers are faced with lack of markets for their product, along with low prices, it is felt that increasing yields in order to spread costs over a larger number of units is not a plausible solution to their problems. One reason is that the majority of the growers could not find a sale for their entire production. For those who do not face this problem, yield may well be the answer. To increase price substantially also looks to be a remote goal. Although the price for imported currants may increase slightly, at the present time it does not seem likely that this increase will be very substantial. The fact that currant acreage is being reduced in the area studied may point to a slight increase in price but this increase will, in all likelihood, be kept within the confines of availability and price of Western United States and imported red currant supplies.

In order to improve the market situation facing the Western New York State red currant growers, it seems that several alternatives should be explored. These alternatives may offer little or no increase in price, but may be a means by which growers could find markets for their entire yield. If a substantial market could be developed, growers could possibly strive to increase yield per acre and thereby reduce per-unit costs. A committee might be organized by interested growers to explore the possibilities of increasing the sale of fresh fruit through various outlets in the Northeast. In many segments of this area, currants are not grown in quantity and desirable market outlets may be found there. It might also be advantageous to explore the possibility of new product development with some of the food manufacturers in the country. A further suggested area for this committee to explore is that of chain restaurants. These restaurants might be willing to use currant jellies and pastry fillings in their food items and promote domestic currant products in conjunction with the food items which include currants as one ingredient.