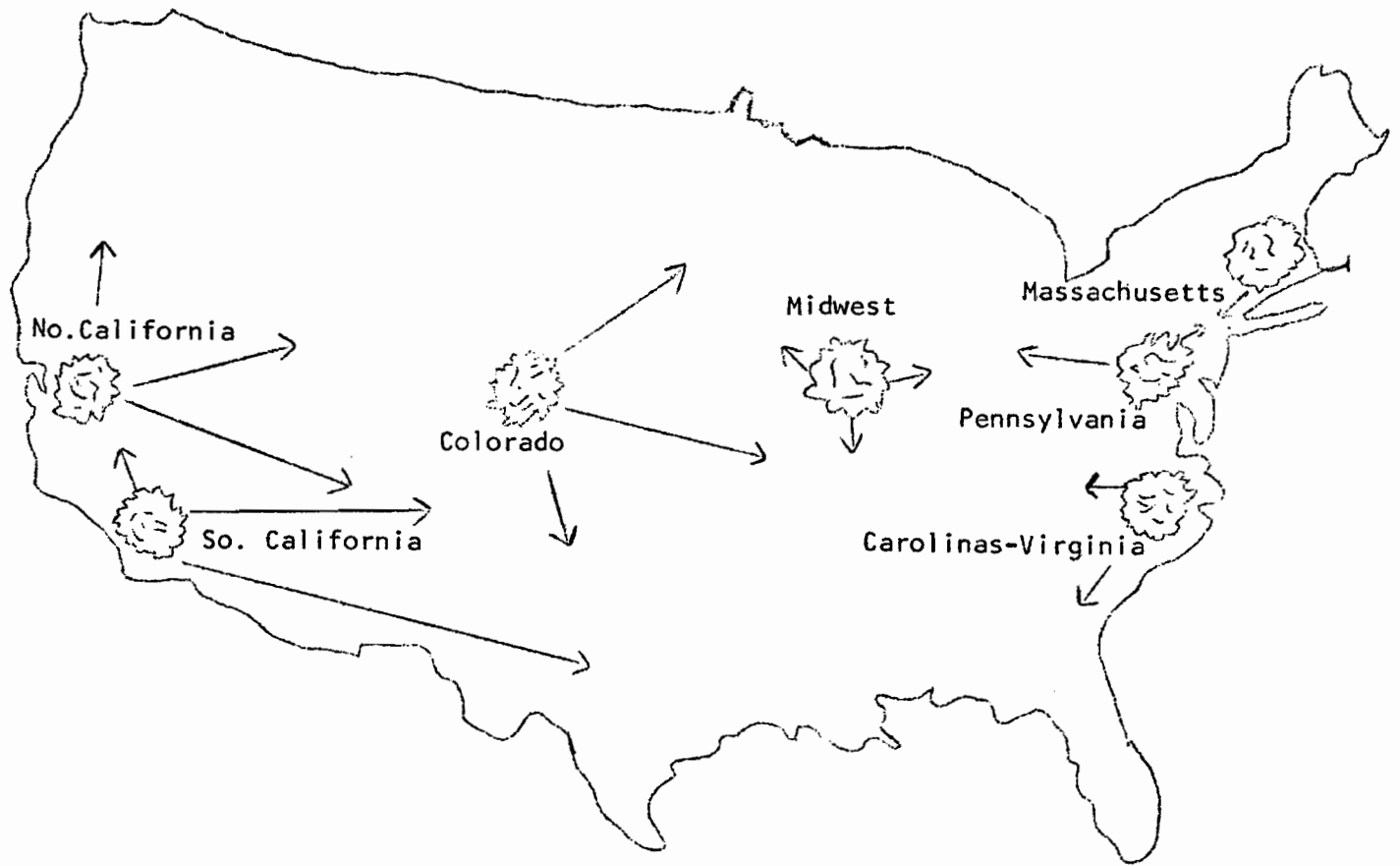


ECONOMICS OF THE U.S. CARNATION INDUSTRY



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Limited economic information is available concerning the production and marketing of carnations in the United States. Since carnation production has expanded so rapidly in recent years, there are many questions about the immediate future.

The USDA cut flower surveys indicate that the upward trend of carnation production is mainly due to expansion in the western areas of California and Colorado. Midwest and eastern areas have decreased slightly or remained nearly stable. (Table 1).

Table 1. Wholesale value of carnations for selected states

<u>Year</u>	<u>Dollars (million)</u>					
	<u>Calif.</u>	<u>Colo.</u>	<u>Ill.</u>	<u>N. Y.</u>	<u>Mass.</u>	<u>Pa.</u>
1956	\$ 2.0	\$ 4.7	\$ 1.6	\$ 1.8	\$ -	\$ -
1961	6.4	5.9	1.3	1.6	-	-
1964	9.4	7.4	.9	1.4	2.6	2.8
1965	10.5	7.7	.8	1.3	2.8	3.2
1966	13.3	8.8	.8	1.3	3.1	3.1

Rapid expansion and dynamic changes in competitive production and marketing create problems of decision making for all segments of the carnation industry.

Shifts of production to more suitable climatic areas, marked advances in transportation, cultural technology, and aggressive merchandising are some of the key factors related to the rapid expansion of carnations.

Growers in older producing areas are concerned about how much longer they can compete with higher yields, higher quality, and lower prices from the newer areas. Growers in all areas are faced with problems of increasing land values, taxes, production costs, and zoning restrictions. In many areas the labor supply is critically short, and facilities have become obsolete because of rapid changes in technology.

Growers must make decisions to stabilize their operations, rebuild or expand at their present locations, relocate in the same general area or a completely different area, convert to another crop, or go out of business altogether.

SURVEY OBJECTIVES

The objectives of this survey were to:

1. Compare average costs, investments, incomes and profits of seven major producing areas.
2. Examine market patterns.
3. Evaluate various economic factors to predict industry trends.
4. Propose a method for growers to utilize data for management decision making.

1/Based on a thesis written by the author in partial fulfillment for the M.S. Degree at Colorado State University.

A mail questionnaire survey was used to obtain information. A total of 830 questionnaires was sent to producers, wholesalers, and shippers. Wholesalers responded with a 31 per cent return; producers returned 26 per cent; and shippers returned 22 per cent. These were good responses for this type of survey.

The survey was not conducted on a statistical sampling basis. Incomplete returned questionnaires were utilized as much as possible. Therefore, the data in Tables 2-6 represent varying number of respondents. Since samples differ, the various tables are not statistically comparable.

The seven major carnation-producing areas were designated as: Southern California, Northern California, Colorado, Pennsylvania-New York-New Jersey, Massachusetts, North Carolina-Virginia, and the Midwest (Minnesota, Iowa, Missouri, Wisconsin, Illinois, Michigan, Indiana, and Ohio).

RESULTS AND DISCUSSION

Although there was a great deal of information derived from the survey, this report will dwell mainly on the financial summaries of producers in the seven major areas. From the results, conclusions can be made as to factors that the author believes will influence future developments in the national carnation industry.

The following tables have been abbreviated to illustrate more specific conclusions:

Plant Density and Flower Yields

The average plant populations and yields of carnation blooms per area, as reported by producers, determine to a large extent many of the costs and the gross income. If any major error exists in these reported figures, the ultimate financial summaries can be greatly affected.

The reported plant density ranged from a low of 2.3 plants per square foot of bench for Northern California to a high of 3.8 plants for Massachusetts. A plant spacing of 2.8 to 3.0 plants per square foot of bench appears to be average for most areas. The yield of carnation blooms approached a million per acre of greenhouse space for each of the western areas. Massachusetts, despite its high plant density, reported the lowest yield of blooms (Table 2).

Table 2. Plant density and annual yield of carnation blooms for seven major producing areas

<u>Area</u>	<u>PER SQ. FT. BENCH</u>		<u>PER ACRE</u>
	<u>Plants</u>	<u>Blooms</u>	<u>Blooms (1000)</u>
So. Calif. $\frac{1}{60}$	2.8	35.5	929
No. Calif. $\frac{1}{60}$	2.3	35.9	938
Colorado	2.8	33.4	946
Pa.-N.Y.-N.J.	3.0	29.7	839
Mass.	3.8	24.1	683
N. Carolina-Va.	3.0	29.8	846
Midwest	2.6	25.2	714

$\frac{1}{60}$ % bench space; other areas 65%.

Capital Investments and Depreciation

Capital investments in land and greenhouses were variable between growers and areas. Land costs have generally doubled in most of the areas from 1955 to 1965. Present land costs for carnation production are about \$10,000 per acre in California and usually less in other producing areas. A few long-established growers in urban areas reported land values where their greenhouses were located, of \$25,000 to \$100,000 per acre.

Greenhouse construction costs are primarily related to climatic factors. In areas with strong winds, hail, snow, and sub-zero temperatures, greenhouses must be sturdily constructed, usually with metal frames and rigid coverings such as glass or fiberglass. In mild climates a very simple wooden frame structure with a thin plastic film cover may be all that is necessary.

Based on averages of figures provided by producers in the survey, new construction of glass greenhouses with metal frames cost about \$4 per square foot of ground covered in areas such as Colorado, Pennsylvania, New York, New Jersey, Massachusetts, and the Midwest. Growers from Northern California indicated greenhouse construction costs of about \$2 per square foot. Costs in Southern California for a wooden frame, polyethylene film greenhouse are about 25 to 30¢ per square foot. A figure of 50¢ per square foot was used in the tables since the trend in Southern California is toward a slightly more improved structure.

Average capital investment per acre for equipment and other buildings ranged from \$30,000 to \$50,000 for Colorado and all eastern producing areas. Southern California carnation growers reported an average equipment investment of about \$12,000 per acre, and Northern California about \$16,000. In California, if heating was not used, the equipment investment was reduced by about one-half of the above amounts. In all areas, heating systems represented 1/3 to 1/2 of the total equipment investments, reflecting different climatic requirements. Grading sheds, other buildings, and other equipment such as vehicles, cooling pads, fans, and water systems were also major items.

Table 3 was assembled to establish approximate average investments and depreciation for the seven U.S. carnation producing areas. The investment values are based on representative figures reported by growers in the survey for new construction, the present value of new benches (redwood or similar) and the present value of equipment and other buildings. Land values, as reported by growers, were extremely variable; thus arbitrary values of \$10,000 per acre were used for California, and \$5,000 for all other producing areas.

The total investments essentially fall into three groups: (1) Southern California, with about \$49,000 per acre; (2) Northern California, with about \$121,000 per acre; and (3) the other areas all in excess of \$220,000 per acre.

The investment in greenhouse construction causes the major difference in total investments between producing areas (Table 3). Table 3 is required to analyze returns to land, capital, and management as a per cent of total investment (Tables 7, 8, 9, and 10).

Table 3. Estimated investments (1966) and depreciation of greenhouses, benches, and other buildings per acre of seven U.S. carnation producing areas.

<u>Investments and depreciation per acre</u>	<u>PRODUCING AREAS (\$1000)</u>						
	<u>So. Calif.</u>	<u>No. Calif.</u>	<u>Colo.</u>	<u>Pa. N.Y.-N.J.</u>	<u>Mass.</u>	<u>N.C. - Va.</u>	<u>Midwest</u>
Greenhouses <u>1/</u>	\$ 21.8	\$ 87.1	\$174.2	\$174.2	\$174.2	\$174.2	\$174.2
Depreciation	2.2	4.4	8.7	8.7	8.7	8.7	8.7
Benches <u>2/</u>	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Depreciation	.8	.8	.8	.8	.8	.8	.8
Equip., other bldgs. <u>3/</u>	9.6	16.6	40.4	53.2	42.7	45.5	34.2
Depreciation	.5	.8	2.0	2.7	2.1	2.3	1.7
Land <u>4/</u>	10.0	10.0	5.0	5.0	5.0	5.0	5.0
Total investment <u>5/</u>	48.9	121.2	227.1	239.9	229.4	232.2	220.9
Total depreciation	3.5	6.0	11.5	12.2	11.6	11.8	11.2

1/\$1.50/square foot for Southern California, \$2.00/square foot for Northern California, \$4.00/square foot for other areas. Depreciation at 10% for Southern California, 5% for all other areas, reflecting different real life of improvements.

2/\$7,500/acre, depreciated at 10% for all areas.

3/Average equipment and other buildings investments per acre, reported by growers, depreciated at 5%.

4/\$10,000/acre for Southern California and Northern California, \$5,000/acre for all other areas.

5/Land, equipment, and all structures at 1966 values.

Annual Production Costs.

The annual production or operational costs for producing the carnation cut flower crop are shown on a per-unit basis in Table 4 for each of the producing areas.

Both California areas show production costs approximately half that of all other areas. Southern California shows a low production cost per bloom of 2.6 cents or 99 cents per square foot of bench, and \$25,779 on an acre basis. Massachusetts, although not having the highest cost per square foot of bench or per acre, shows the highest cost per bloom of 8.3 cents. This high cost may be due to the smaller yield of blooms, if this is as reported.

A few sample production cost items are shown as a percentage of total annual production costs in Table 5. Although 10 items were originally surveyed, the examples listed separately here illustrate the importance of key items such as labor.

If a management fee is combined with hired and family labor costs, this item would represent 55 to 60 per cent of total production costs for all producing areas. Fuel costs are less in California, and range from 7.3 to 10.7 per cent for the other areas.

Utilities, taxes, interest, and insurance (not shown separately here) appeared to be modest costs as compared to the major costs, such as labor, fuel, plants, supplies, and miscellaneous expenses.

Table 4. Average annual production costs per unit for seven U.S. carnation producing areas.

<u>AREA</u>	<u>SQ. FT. BENCH</u>	<u>ACRE</u>	<u>BLOOM</u>
So. Calif.	\$.99	\$25,779	\$.026
No. Calif.	1.15	30,106	.032
Colorado	1.92 ^{1/}	54,214	.057
Pa.-N.Y.-N.J.	1.98	56,160	.067
Mass.	1.96 ^{2/}	55,609	.083
N.C.-Va.	1.99	56,301	.067
Midwest	2.03	57,543	.081

^{1/}\$1.80 - \$2.37 reported by Holley for 5 Colorado growers in 1955.

^{2/}\$2.19 reported by White in Massachusetts in 1950.

Table 5. Sample production cost items as a percentage of total annual production costs for 7 U.S. carnation producing areas.

<u>Area</u>	<u>Total/Acre</u>	<u>Labor</u>	<u>Mgmt.</u>	<u>Fuel</u>	<u>Plants</u>	<u>All other^{1/}</u>
	<u>\$</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
So. Calif.	26,000	53	9	3	5	30
No. Calif.	30,000	48	17	4	8	23
Colorado	54,000	44	15	8	3	30
Pa.-N.Y.-N.J.	56,000	34	15	11	9	31
Mass.	56,000	44	10	8	8	30
N.C.-Va.	56,000	33	23	7	7	30
Midwest	58,000	38	18	8	9	27

^{1/}Includes utilities and water, taxes, supplies, interest, insurance, and miscellaneous expenses.

Average Gross Income

Average dollar return or gross income to producers from carnation bloom sales is listed in Table 6 for the seven U.S. carnation producing areas. The income per greenhouse acre is the base figure reported by respondents in the survey. Income per square foot of bench and per bloom was derived by dividing bench area or reported yield of blooms into the acre income.

On a per-bloom basis, the gross return is about five cents for California carnations and from about eight to nine cents for Colorado and all eastern producers. The lower average income received per bloom by California producers is due mostly to transportation differential to eastern markets. Colorado, being closer to eastern markets, receives slightly less per bloom than eastern producing areas whose flowers are marketed locally. Any differences of income received per bloom that cannot be accounted for by transportation differentials could be due to inaccurate reporting of annual bloom yields or total gross income.

Table 6. Average annual gross income (dollars) for seven U.S. Carnation producing areas.

<u>AREA</u>	<u>ACRE</u>	<u>SQ. FT. BENCH</u>	<u>BLOOM</u>
So. Calif.	\$39,323	\$1.50	\$.048
No. Calif.	48,682	1.82	.051
Colorado	76,615	2.71	.081
Pa.-N.Y.-N.J.	77,829	2.75	.093
Mass.	61,928	2.19	.091
N.C.-Va.	77,068	2.72	.091
Midwest	65,833	2.32	.092

Financial Summaries

Tables 7 and 8 summarize the financial situation for an average greenhouse acre of carnations for each of the seven U.S. producing areas. The data used for the analysis in this table were obtained from 42 selected growers who reported complete data for all items necessary for the summary.

California shows the lowest revenues per acre and also the lowest investments and cash costs. California producers show the highest rates of return to land, capital, and management as a per cent of total investment. Colorado, Pennsylvania-New York-New Jersey, and North Carolina-Virginia producers operate at a higher level of revenues, costs, and investments per unit.

Massachusetts and Midwest producers had smaller revenues per unit than other eastern areas and relatively higher cash costs. Massachusetts shows only a small return to land, capital, and management. A negative income results if depreciation and a six per cent return on investment is subtracted from the gross profit. It may be that Massachusetts and Midwest growers are essentially "living off their depreciation" until other alternatives become necessary.

Table 7. Financial summary per acre for seven U.S. carnation producing areas (42 selected growers).

<u>Per Acre</u>	<u>(1000 Dollars)</u>						
	<u>So. Calif.</u>	<u>No. Calif.</u>	<u>Pa. Colo.</u>	<u>N.Y.-N.J.</u>	<u>Mass.</u>	<u>N.C.-Va.</u>	<u>Midwest</u>
Gross income	\$38	\$47	\$79	\$77	\$57	\$77	\$66
Cash Costs	<u>23</u>	<u>25</u>	<u>44</u>	<u>47</u>	<u>54</u>	<u>41</u>	<u>46</u>
Return to land, capital, & mgmt.	15	22	35	30	3	36	20
Depreciation	<u>3</u>	<u>6</u>	<u>11</u>	<u>12</u>	<u>12</u>	<u>12</u>	<u>11</u>
Gross profit	12	16	24	18	--	24	9
Av. investment <u>1/</u>	29	66	116	122	117	119	103
6% on investment	<u>2</u>	<u>4</u>	<u>7</u>	<u>7</u>	<u>7</u>	<u>7</u>	<u>6</u>
NET PROFIT <u>2/</u>	10	12	17	11	--	17	3

1/Land valued at \$10,000 per acre for California areas and \$5,000 for all other areas. The improvements are valued as in Table 3 but assumed to be depreciated by half.

2/Owner's wages and/or management income (income taxes not included).

Table 8. Per cent return on current investments based on an average acre for seven U.S. carnation producing areas.

Per Acre	(1000 Dollars)						
	So. Calif.	No. Calif.	Colo.	Pa. N.Y.-N.J.	Mass.	N.C.- Va.	Midwest
Value of "new" investment <u>1/</u>	\$49	\$121	\$227	\$240	\$229	\$232	\$221
Gross Profit <u>2/</u>	12	16	24	18	--	24	9
Internal rate of return <u>3/</u>	24%	13%	11%	8%	--	10%	4%

1/Estimated current investment cost for land, buildings, and equipment as in Table 3.

2/Return to land, capital, and management after depreciation (Table 7).

3/The return to land, capital, and management as a per cent of the total "new" investment.

In Table 9, the "net profit" or return to owner's wages and management income, is developed in cents per bloom for an average acre of carnations in each of the seven U.S. carnation producing areas. Net profit per bloom is indicated to be from 1.0 to 1.2 cents for California producers and 1.4 to 2.0 cents for Pennsylvania-New York-New Jersey, Colorado, and North Carolina-Virginia producers.

The Midwest shows a very small profit of two-tenths of a cent per bloom, and Massachusetts shows no profit. However, if depreciation is not regarded as a cost, both the Midwest and Massachusetts would be making a good contribution to the owner's wages or management.

Table 9. Financial summary, cents per bloom, for seven U. S. carnation producing areas (42 selected growers).

Per Bloom	So. Calif.	No. Calif.	Colo.	Pa. N.Y.-N.J.	Mass.	N.C.- Va.	Midwest
	Gross income	3.9¢	4.8¢	8.0¢	9.3¢	10.1¢	9.1¢
Cash costs	2.4	2.6	4.5	5.6	9.6	4.9	5.9
Return to land, capital, & mgmt.	1.5	2.2	3.5	3.7	0.5	4.2	2.7
Depreciation	.3	.6	1.2	1.4	1.7	1.4	1.6
Gross profit	1.2	1.6	2.3	2.3	---	2.8	1.1
6% on av. invest. <u>1/</u>	.2	.4	.7	.9	1.0	.8	.9
NET PROFIT <u>2/</u>	1.0	1.2	1.6	1.4	---	2.0	.2

1/Land valued at \$10,000 per acre for California areas and \$5,000 for all other areas. The improvements are valued as in Table 3 but assumed to be depreciated by half.

2/Owner's wages and/or management income (income taxes not considered).

In addition to analyzing the financial situation per acre and per bloom by producing areas, the same 42 U.S. carnation growers were regrouped as small, medium, or large enterprises. Nearly equal representation of growers from each production area was achieved for each enterprise group. This arrangement meant that a California grower placed in the "small" group might be equal in size or larger than an eastern area grower placed in the "large" group, etc. The objective was to analyze this cross-section of U.S. carnation growers to determine if relative size of enterprises caused differences in financial success.

Table 10 summarizes the financial situation of the three size groups for an average enterprise on a per-acre basis. The results show that "small" enterprises of about one-half acre in size average about \$9,000 per acre net profit or the return to owner's wages and management. Medium enterprises (1 acre) average \$5,000 per acre "net profit," while large enterprises (2.49 acres) show an average "net profit" of \$14,000 per acre. It might be interpreted that "large" enterprises are most efficient in returning a profit, although "small" units which might be primarily family-oriented are able to return slightly more profit per acre than "medium" enterprises.

In Table 10, a somewhat puzzling trend occurs whereby the figures for "depreciation" and "6% on average investment" decrease on an acre basis from small to large average enterprise size. There are two possible explanations for this effect: (1) even though nearly equal representation of growers from each producing area (based on relative size in each area) make up the three enterprise groupings, the larger California enterprises may influence the "large" grouping over the "medium" grouping, etc. Due to climatic factors California investments in greenhouses and equipment are less, therefore causing a lower real life depreciation and a smaller figure of 6% on the average investment per acre; (2) it may also be possible that large enterprise units in any location can make more economical investments due to savings on larger units of construction and buying equipment in greater amounts.

Table 10. Financial summary, per acre, for seven U.S. carnation producing areas. (42 selected growers) 1/

Per Acre	(1000 Dollars)		
	Small	Medium	Large
Gross income	\$ 61	\$ 53	\$ 56
Cash costs	36	35	32
Return to land, capital, & mgmt.	25	18	24
Depreciation	10	8	7
Gross profit	15	10	17
6% on av. investment	6	5	3
NET PROFIT 2/	9	5	14

1/Figures in table represent thousands of dollars per acre. The average unit for small enterprises was .49 acres; medium--.99 acres; large--2.41 acres.

2/Return to owner's wages and/or management income (income taxes not included).

Carnation flow pattern from producing areas to market areas.

The United States was divided into nine geographical market areas, in each of which wholesalers reported a percentage of their seasonal carnation purchases from each of the seven designated producing areas. General conclusions about the market flow of carnations are as follows:

1. The combined western producing areas of Colorado and California supply over fifty per cent of all the United States except for the northeast section.
2. Due to the large volumes produced in Colorado and California, only a small percentage is marketed within these producing areas. The local producing area, Massachusetts, supplies its own market area as well as other markets along the eastern seaboard. This is also true of Pennsylvania-New York-New Jersey and North Carolina-Virginia. Midwest producers are supplying only local markets.
3. The southern markets are almost wholly supplied by either Colorado or California carnations.

CONCLUSIONS

The key factor responsible for the changes taking place in the U.S. carnation industry is TRANSPORTATION. Since the majority of California and Colorado markets are outside the producing areas, transportation is vital.

Since it is possible to market at a distance, it then becomes more economical or efficient to produce in the most desirable climates. Both Colorado and California receive more light energy, which in turn means higher flower yields, better average quality, and more consistent production during demand periods.

Eastern areas lack winter light and cannot cool their greenhouses efficiently in summer. Western areas have excellent light, relatively cool summers ideal for carnations--or in the case of Colorado, low humidity for effective day cooling, and cool nights.

California has additional advantages over all other areas, including Colorado. Because of mild winters capital investments in greenhouses and heating equipment are fifty to seventy-five per cent less in California. The cash operating costs are also less, mainly because of less fuel and maintenance.

The average California carnation producing unit is larger, newer, and frequently specialized in carnations only. For these reasons, California producers can readily take advantage of changes in technology, particularly labor-saving devices. New growers in expanding areas can construct their greenhouses according to latest designs and plans for installation of automatic watering systems, fertilizer injection, and more efficient heating and cooling.

Southern California carnation growers have a further advantage of mobility. The simple wooden frame, plastic film-covered greenhouse structures can be used for a few years until taxes and zoning restrictions become acute and then relocated on new property. Relocation enables growers to make new land investments and update their facilities. The factor of land investment appreciation is almost impossible to appraise in a financial analysis of carnation enterprises.

Eastern carnation areas are, for the most part, stabilizing or decreasing production because of competition from western areas with climatic and cost advantages. Nevertheless, highly efficient eastern growers may continue to compete where they have a well-developed local market, or are growing some carnations as an accommodation item to satisfy a market demand for several cut flower and pot plant items. Many growers may have recaptured their capital investments years ago and have a closer contact with their markets.

Based on this survey, the author would place the order of the seven U.S. carnation producing areas in terms of potential return on invested capital, as follows:

- 1 - Southern California
- 2 - Northern California
- 3 - Colorado
- 4 - North Carolina-Virginia
- 5 - Pennsylvania-New York-New Jersey
- 6 - Midwest
- 7 - Massachusetts

Financing

Although the majority of growers reporting in this survey indicated bank financing is used for major capital items, the author's knowledge of the industry leads to the conclusion that bank financing for carnation growers needs improvement.

Bankers frequently state their cases against investment in carnations as follows:

1. Greenhouses have single-purpose use.
2. Management, or business organization, of many greenhouse operations is not set up for continuation.
3. Instability is due to annual fluctuation of flower prices.

The bankers' ideas contain some worthwhile instructions for the carnation industry. Greenhouses are single purpose in a sense of being designed only to grow plants. However, a greenhouse business properly organized and managed, and in the right location, can usually return a profit on the investment comparable to or better than many other normal business ventures. A greenhouse business can frequently overcome the capital investments in five or ten years, a shorter period of time than some types of businesses. Well managed, a greenhouse operation has many alternatives for various crops.

The bankers' strongest reason against financing may be that of improper management or business organization for continuation of the business. Growers might consider this point and seek legal advice for corporate arrangements to strengthen this position.

Instability due to annual fluctuation of flower prices is only partially true. The nature of holiday demands is not understood by many outside the floral industry. Prices are very stable from year to year. Prices of carnations are showing greater stability as western production areas increasingly influence the market with more consistent seasonal production, quality, and tendency toward slightly lower but firmer pricing nationwide. (See Table 11)

Table 11. Average annual wholesale price of carnations per bloom (cents)

Year	Calif.	Colo.	New York		Average of All
			L.I. - Upstate		
1957	4.7¢	8.7¢	6.7¢	7.4¢	6.9¢
1959	4.7	8.0	6.5	8.1	6.9
1961	5.0	7.8	6.4	8.0	6.8
1963	5.1	7.8	6.4	8.0	6.8
1965	5.3	8.0	6.5	7.2	6.8
1966	5.4	8.0	7.3	8.0	7.2

Source: USDA Cut Flower Surveys

The carnation industry and other phases of the total floral industry must organize, publicize, and thereby strengthen the relationships with bankers and other lending agencies on the potential of flower production.

Management

Cultural problems are no longer of primary concern in carnation production. The author could cite several examples of recently successful growers who had little or no background in cultural techniques but have exceptional managerial ability. Management is becoming more important in today's economy.

Management decisions frequently require records. Carnation growers could improve their management by striving to keep better records of investments, costs, returns, flower yields, and other production information.

Management requires constant reappraisal, projection of future trends, and evaluation of alternatives. Time is a factor related to selection of alternatives. Growers must constantly determine their costs and profits. Among the alternatives apparently available: sell out and reinvest capital in more lucrative enterprises; sell out and retire; change to a more profitable crop; relocate in the same general area; modernize the present facilities; relocate in a more progressive area or climate; transform the business to some other form such as a garden center; hire a manager.

The U.S. carnation industry cannot ignore the possibility of competition not only within the national boundaries but from many other "natural" carnation producing areas of the world. The time may come when worldwide production can be systematically regulated so that unlimited supplies of carnations and other flowers can be imported at competitive costs and distributed through mass merchandising outlets. Are U.S. growers going to be a part of this economic system or sit by and watch it happen?

Only a progressive industry can survive in today's market economy.