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**THE ROLE OF AGRICULTURE
IN THE ECONOMY OF NEW YORK STATE**

By

David L. Call

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No. 77-29

The Role of Agriculture in the Economy of New York State*

The citizens of New York have been told repeatedly in the last several years that the economy of the Empire State is not well. This was brought to the forefront with the Governor's address to the legislature in January of 1977. In very succinct terms, the Governor pointed out that there are fewer New Yorkers since our population is on the decline and there are fewer jobs available. Since 1970 we have seen a drop of more than 5½% in the number of jobs in New York State. Those of us who are left in the state are little better off since the real per capita disposable personal income in New York grew at only one-tenth of the national rate between 1970 and 1975.

For a state which for many years prided itself on being the best and in the forefront of many social and economic trends, these three simple truths: fewer citizens, fewer jobs and no significant change in the real purchasing power of those who remain in New York State are hard to accept. New York State's economy impacts directly on those who are involved in the food and agricultural industry in the state. Not only is the food and agricultural industry an important component of the state's economy, but the economic climate within New York State influences the markets for agricultural products produced within the state. When income within the state is depressed, the markets for many of our products are depressed. Agriculture is inexorably linked to the economy of the state.

The purpose of this presentation is to examine in more detail how New York State's food and agricultural industry is linked to the New York State

* A summary of remarks presented by David L. Call, Director of Cooperative Extension, at the Agricultural Forums, April, 1977. The staff of the Department of Agricultural Economics cooperated by researching the original data and aided in their interpretation. Professor R. N. Boisvert provided the Economic Multipliers which are from unpublished research still in progress.

economy and to examine some recent trends. Also, we would like to look at the employment situation in New York State to see where changes have been taking place. We will then look at the agricultural production component and the food manufacturing component, and talk about the impact of primary agricultural production and marketing. The concept of economic multipliers will be used to show that all jobs are not created equal. Some jobs have a greater impact on the economy than others. Lastly, we will address the question of a plan for development and growth for the food and agricultural industries within New York State.

New York's Agricultural Industry

Let's turn to a brief description of New York's agricultural industry. It can be described in many ways and some of these are shown in Table I. We can talk about 46,000 farms, 9 million acres of land in farms or about 5.7 million acres in cropland. We can look at the tremendous growth in the value of land and buildings from 2.1 billion in 1964 to almost 5 billion in 1974. We could talk about total cash receipts from marketings which grew from just under \$1 billion in 1964 to almost \$1.5 billion in 1974, or we could examine total farm production expenses which is money poured into the economy of New York. These expenses about doubled from 1964 to 1974 from over \$760 thousand to almost \$1.5 billion. In summary, the dollars involved in New York's agricultural industry have increased tremendously during the last decade, but the amount of land in agriculture and the number of farms have decreased. Of particular concern is the fact that cropland acres show an 11% decline from 1964. Cropland is the finite base around which the whole industry revolves. Declines here have to be viewed with real concern.

TABLE I
New York's Agricultural Industry

<u>Item</u>	<u>1964</u>	<u>1974</u>	<u>% Change</u>
Number of farms (thousands) ^a	66.5	46.3	- 30
Land in farms (thousand acres) ^a	12,275.3	9,456.3	- 23
Cropland (thousand acres)	6,470.0	5,756.4	- 11
Value of land and buildings (billions) ^a	\$ 2.1	\$ 4.9	+133
Total cash receipts from farm marketings (thousands) ^b	\$902,740	\$1,497,854	+ 66
Total farm production expenses (thousands) ^b	\$761,400	\$1,450,500	+ 91
Realized total net farm income (thousands) ^b	\$300,300	\$ 246,100	- 18

^aData from U.S. Census of Agriculture, 1964 and 1974.

^bData from Farm Income Situation, August 1972 and August 1973 Supplements and State Farm Income Statistics, Supplement to Statistical Bulletin No. 557, August 1976, ERS, USDA.

TABLE II
Agriculture's Contribution to Employment and Property Taxes

<u>Item</u>	<u>1964</u>	<u>1974</u>	<u>% Change</u>
Total farm employment ^a	131,000	104,000	- 21
Total hired labor expense (thousands) ^b	\$ 87,500	\$167,500	+ 91
<u>Property taxes</u>			
Total taxes paid on farm real estate (thousands) ^b	\$ 51,500	\$ 76,100	+ 48
Property tax paid per acre	\$ 4.20	\$ 8.05	+ 92
Property tax paid per farm	\$ 774	\$ 1,644	+112

^aData from Agricultural Statistics, 1972 and 1976.

^bData from Farm Income Situation, August 1972 and August 1973 Supplements and State Farm Income Statistics, Supplement to Statistical Bulletin No. 557, August 1976, ERS, USDA.

Total farm employment in 1974 was approximately 104,000 people (Table II). Farm employment was down 21% from 1964. But we also find that we are paying twice as much for hired labor in 1974 as we were in 1964. Most of this increase reflects higher wage rates and not additional workers. Also we experienced a significant increase in the last decade in total taxes paid on farm real estate. Approximately \$76 million is now being paid by farmers in the form of property taxes.

In an attempt to remove inflation from some of these figures, in Table III we have expressed certain of these numbers in constant 1967 dollars. There it is easy to see that the total cash receipts on a constant dollar basis have decreased 16% in the last decade. The cash receipts from livestock and livestock products have decreased less than that, but from crops the decrease is more, 20%. Total farm production expenses have decreased 17%. These are rather shocking numbers to those who are used to handling more dollars. The impact of inflation is apparent.

Another way to look at trends in agriculture within New York State is not to look at dollars, but to look at actual quantities of some of the products produced. In Table IV, we find quite a divergence in our broad categories of products. Processing vegetable production has increased 18%, while fresh vegetable production has decreased 33%. Production of apples for processing has increased 16% while fresh apple production has decreased 28%. Potato production has declined; onion production has declined; but grape production has expanded substantially. Three other minor fruits have declined substantially. Although we must be conscious that there are wide year-to-year variations within those numbers, these two years are fairly representative of the trend.

In Table V, we present some numbers on the utilization of milk and milk products in New York State which are important because of the predominance of

TABLE III
New York Agricultural Receipts and Expenses -
Removing Inflation (Constant 1967 Dollars)

<u>Item</u>	<u>1964</u>	<u>1974</u>	<u>% Change</u>
Value of agricultural products sold (thousands)			
Total cash receipts from farm marketings	\$1,025,841	\$865,811	- 16
Livestock and livestock products	713,871	632,658	- 11
Crops	269,917	217,033	- 20
Total farm production expenses (thousands)	917,349	763,368	- 17

Note: The price indices for agricultural products sold are based on the work done by Hurt and Tomek ("Index of Prices Received by New York State Farmers, 1967=100," A. E. Res. 72-1, Department of Agricultural Economics, Cornell University, March 1972). For farm production expenses, all but three items were obtained from USDA sources (USDA, Economic Research Service, Farm Income Situation, Annual Supplements 1965-1974 and State Farm Income Statistics, Supplement to Statistical Bulletin 557, August 1976). The indices for feed expenses, hired labor and livestock expenses were obtained from Professor Bratton's office and are essentially indices for New York State dairy farms. In our judgment, however, these indices are quite appropriate for these three items.

TABLE IV
Total Production of Selected Crops
New York--1964 - 1974

<u>Item</u>	<u>1964</u> (thousand pounds)	<u>1974</u>	<u>% Change</u>
Six processing vegetables ^a	711,580	839,000	+ 18
Nine fresh vegetables ^b	673,400	452,500	- 33
Apples			
Processing	507,400 ^c	589,000	+ 16
Fresh	419,000 ^c	300,000	- 28
Potatoes	1,873,500 ^c	1,371,800	- 27
Onions	440,000	397,300	- 10
All grapes	274,400 ^c	354,000	+ 29
Three other fruits ^d	100,800 ^c	63,400	- 43

^aSnap beans, beets, cabbage, sweet corn, peas, tomatoes

^bSnapbeans, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, lettuce, tomatoes

^c1965 data

^dCherries, peaches, pears

Sources: U. S. Crop Reporting Board, Vegetables--Fresh, Annual Summaries, 1964, 1974.

the dairy industry within the state. Here we see that total fluid milk production declined 11% between 1969 and 1975. Since the fluid milk data include skim milk products which have been growing, the decline has been even greater in fluid whole milk. Butter production has also declined, but cheese production has increased very dramatically, 39%. This figure includes both hard and soft cheeses. The production of dry and condensed products has declined, but other products, primarily speciality items, have increased. It is obvious from these figures that agriculture has not been on a steady upward climb in the last decade or even in the last five years. We have some segments of agriculture which have expanded and others which have contracted. This is true of many other segments of New York State's economy.

When talking about agriculture in New York State, many people bring up the fact that we are a deficit-producing state as far as food is concerned and that this in itself should provide a natural growth opportunity. In Table VI, we can see that the deficit position varies widely depending on the commodity group. It ranges from 6% for meat products to a high of 91% for the dairy products produced and consumed within the state. Although this does appear to provide marketing opportunities, there are good reasons why New York State is not more dominant in the production of food for the New York State market. These figures reflect a long history of inter-regional competition and many other factors which are brought to bear on the relative economic profitability of producing products within New York State.

Employment in New York State

To have a better understanding of how the food and agricultural industry meshes with the total economy of New York State, let's examine the employment situation. As shown in Table VII, total employment in New York State in 1973 approximated 6.9 million people. This was down 4% from the estimated 7.2 million in 1969. In 1977, total employment is certainly lower than in 1973.

TABLE V
Utilization of Milk and Milk Products in New York State

<u>Item</u>	<u>1969</u> (thousand pounds)	<u>1975</u>	<u>% Change</u>
Total fluid milk	5,152,510	4,580,410	- 11
Butter	87,168	73,399	- 16
Total cheese	1,691,699	2,344,942	+ 39
Dry & condensed products	1,964,600	1,464,777	- 25
Other products	331,462	411,317	+ 24

Source: NY Crop Reporting Service, New York Dairy Statistics, 1969, 1975.

TABLE VI
New York Agriculture's Contribution to New York Food Supply - 1974

<u>Commodity Group</u>	<u>Retail Value of Food Consumed In New York^a</u>	<u>Total Farm Value of Food Consumed^b</u>	<u>Percent Produced In NY State</u>
	(\$ Million)		
Meat products	4,134	1,892	6
Dairy products	2,033	887	91
Fruits & vegetables	3,043	820	38
Bakery & grain	2,001	472	6
Poultry & eggs	834	414	25
Miscellaneous foods	2,182	869	1
Total food	14,226	5,354	26

^aBased on total U.S. Expenditures as reported by the ERS, USDA in National Food Situation (NFS-155) February 1976, p. 11. Assumes same per capita rate of expenditure in New York as for the entire U.S. U.S. population was 211.9 million and the New York population was 18.1 million.

^bCalculated by multiplying the Retail Value of Food Consumed in New York State by the Farmer's Share of the Consumer Expenditures on Food. The share factors are calculated from data in Food Consumption Prices & Expenditures, USDA, ERS, Supplement to 1974 Ag. Econ. Report #138.

At the top of the table there is a group of industries called Food and Agriculturally Related Industries which in 1973 accounted for 8% of the total employment in the state. We should point out that this does not include most people employed in primary agricultural production who are not covered by Social Security. As you will see later, this census grouping includes everybody working in retail food stores, restaurants and in the grocery wholesale trade.

The other key item in Table VII is the heavy decline in durable and non-durable manufacturing within New York State. The 14% decline in these two categories has made a major contribution to the decline of the economy within the state. The types of jobs in these categories have a high economic impact. They are the ones that have been moved to other areas of the country. Also it should be pointed out that the category which shows the greatest increase, the services area, includes many people on the public payroll rather than the private payroll. The Governor pointed out in his address that in New York State we have created many jobs in the public sector while we have been losing jobs in the private sector, with the obvious tax implications. We would expect that most of these trends have continued up to the present.

In an attempt to be more specific with respect to employment in food and agriculturally related industries, Table VIII shows the food manufacturing component in more detail. From 1969 to 1973, employment in food manufacturing declined rather dramatically - a decline of 18% overall, but ranging as high as 31% for confectionary products and 22% for bakery products. The category of agriculturally related manufacturing refers primarily to manufacturing of farm machinery and chemicals. Some of the output is used within New York and some is exported from the state. It is a relatively minor area, but all jobs count. As mentioned earlier, the broad category includes food related wholesale and retail trade. This is a major area of employment within the state, with almost 51,000 jobs in food related wholesale trade. In addition, there

TABLE VII
Employment in New York State, 1969 & 1973

	<u>1969</u>	<u>1973</u>	<u>% Change</u>
	(thousands)		
Food and agriculturally related industries	584	569	- 3
Durable manufacturing	916	787	- 14
Non-durable manufacturing	731	627	- 14
Transportation, communication and public utilities	476	484	+ 2
Wholesale and retail trade (non-food)	938	942	---
Finance, insurance and real estate	582	592	+ 2
Services	1,254	1,324	+ 6
Estimated number of employees not covered by Social Security	1,731	1,636	- 6
Estimated total employment	7,212	6,961	- 4

Sources: U. S. Bureau of Census, County Business Patterns, New York
 CBP - 69-34 and CBP - 73-34, U.S. Government Printing Office, Washington, D.C.

TABLE VIII
Employment in Food and Agriculturally Related Industries

<u>Item</u>	<u>1969</u> (thousands of employees)	<u>1973</u>	<u>% Change</u>
Food Manufacturing			
Bakery products	24.0	18.7	- 22
Beverages	18.8	15.6	- 17
Dairy products	15.6	12.6	- 19
Canned & frozen foods	14.4	12.4	- 14
Meat products	10.9	9.2	- 16
Confectionary	11.8	8.2	- 31
All other	<u>13.5</u>	<u>12.9</u>	- 4
TOTAL	109.0	89.6	- 18
Agriculturally Related Manufacturing	4.0	5.0	+ 25
Wholesale Trade			
Groceries & related products	54.8	50.9	- 7
Farm products (raw materials)	4.0	3.4	- 15
Farm machinery	1.3	1.5	- 15
Retail Trade			
Food stores	162.7	169.9	- 4
Eating & drinking	225.9	224.5	- 1
Florists	4.9	4.8	- 2
Farm & garden stores	5.6	6.1	+ 9
Farm equipment dealers	2.5	2.8	+ 12
Agricultural Services	8.8	10.1	+ 15

Sources: U. S. Bureau of Census, County Business Patterns, New York
 CBP - 69-34 and CBP - 73-34, U. S. Government Printing Office, Washington, D.C.

are a number of jobs in the handling of farm products (raw materials) and the wholesaling of farm machinery.

Far and away the largest category of employees in the food and agriculturally related industries is the retail trades segment covering food stores and eating and drinking establishments. Over 69% of the 569,000 employees can be found in these two categories. These numbers certainly dwarf the 6,000 people employed in farm and garden stores and almost 3,000 employed in farm equipment dealerships as well as the 10,000 in the broad area of agricultural services. When the statement is made that food and agriculture is the largest industry within New York State, people are including the retail and wholesale trade employment. This does not seem to be a realistic way to portray the primary food and agricultural industry within the state.

In an effort to be more specific we have constructed Table IX which estimates the employment in the production, manufacturing and marketing of food produced in New York State for the year 1974. We estimate about 104,000 full-time equivalents employed in agricultural production. In addition, by taking the categories of farm equipment dealers, farm and garden stores and others, we estimate that about 42,000 people are employed in direct agricultural support. This would indicate that for each 10 people employed on the farm, there are 4 people employed in the agricultural support and input industries. In the food manufacturing area, we estimate that approximately 35,000 people are employed in manufacturing raw products produced within the State of New York. This is approximately 39% of the total employment within the food manufacturing sector. In addition, we estimate about 7,000 people involved in the marketing of fresh and perishable products produced in the state and another 8,000 involved in transportation, production of packaging materials and other marketing services. When put together, we have 196,000 people employed in what could be referred to as primary agricultural

TABLE IX

Estimated Employment in the Production, Manufacturing
And Marketing of Food Produced in New York--1974

	<u>Thousands Employed</u>
Production	
Farm employment--full-time equivalents	104
Agricultural support and services	42
Manufacturing and Marketing	
Manufacturing New York raw products	35
Marketing fresh products	7
Transportation, packaging materials, and other marketing services	8
Total Direct Employment	196

Note: The above are drawn from preceding tables and estimates where specific figures were not available.

TABLE X

Economic Multipliers

Assuming an increase in the final demand for a product or service that results in an initial increase in income of \$1,000,000 to people involved in the production process.

<u>Sector</u>	<u>Income Multiplier</u>	<u>Total Impact on Income Within N.Y. State</u>
Food manufacturing	3.04	\$3,004,000
Other manufacturing	2.10	2,100,000
Construction	1.92	1,920,000
Finance and insurance	1.61	1,610,000
Business and personnel service	1.41	1,410,000

production, manufacturing and marketing in New York State. This represents somewhat less than 3% of the total employment within the state. Time does not allow a complete analysis of the payroll generated by these food and agriculturally related industries within the state, but for the total category which showed 569,000 employees in 1973, the payroll was almost \$3.5 billion. This would indicate income for the approximately 200,000 people employed in primary agricultural production and manufacturing of around \$1 billion, certainly an important item in the New York State economy.

A word of caution is necessary at this point so that someone does not interpret these 200,000 employees or \$1 billion of income as being the total impact on the state's economy. This is the most easily observed impact, but the total contribution is probably two to three times this number. Each year New York farmers sell over \$1.5 billion of agricultural products and that money is used to pay for farm expenses and to buy consumer items for their households. In this way farmers add directly to the total value of goods and services produced within the state. A great deal of activity is stimulated throughout the state in the nonfarm sectors when the various industries use the money received from farmers or from those involved in working directly with farmers to pay their bills and to provide services to others within the economy. For example, our agricultural economists estimate that New York farmers have spent approximately \$135 million for equipment including trucks and autos and \$90 million for buildings in recent years.

Economic Multipliers

Economists in recent years have spent a great deal of time tracing the impacts on the economy of these various expenditure patterns. Professor Boisvert in our Department of Agricultural Economics has derived a series of "economic multipliers" which we feel for the first time accurately portray the secondary impact of these dollars. As you will see in Table X, assuming an increase in

the final demand for a product or a service that results in an initial increase in income of \$1 million to people involved in the production process, there is an income multiplier which can be used that varies by industry. The income multiplier for the food manufacturing sector is over three. The total impact on income within New York State of a \$1 million increase in payroll or income to people involved in the production process is over \$3 million. It is most interesting to observe that the economic multiplier for food manufacturing is substantially higher than the multiplier for other manufacturing and much higher than that shown for construction, finance and insurance or business and personal service. Included in the \$3 million total impact of a \$1 million increase in income are payments to farmers who produce raw products that are manufactured in the manufacturing process. This concept is most useful as we look to the future and talk about the impact on the New York State economy of possible expansion within the food and agricultural sector. Not shown in the table is the multiplier for the livestock sector of agriculture alone. If we assumed that an increase in agricultural production in New York State resulted in an increase of \$1 million in income to farmers and hired employees, the total impact on the economy, with no further manufacturing of the products produced, would be over \$2.5 million. Therefore, even if a product such as milk was produced and trucked out of the state with no further processing, you still would have a substantial multiplying effect because of the nature of the livestock production process. The multiplier for crops produced and exported from the state would be lower, approximately 1.6.

Obviously then as we look to the future, it is important to recognize that a job is not a job. As stated earlier, some jobs have a greater impact on the economy than other jobs. The higher the degree of manufacturing involved, the greater the income multiplier. Certainly with food having the highest income multiplier of any industry group identified in the Boisvert study, we can lay

claim to the potential for a greater economic impact through expansion of the food and agricultural industry than with other segments of the economy. It is important to recognize that the greater the proportion of the raw product produced in New York State that is utilized in food manufacturing, the higher the multiplier. For example, a cheese plant which relies completely upon milk produced in New York State would have an economic multiplier higher than a bakery which imports most of its raw product from outside New York State. Although expansion in both areas could be important to the economy of New York State, an expansion in the area of food manufacturing which relies primarily upon raw products produced in New York State would have a substantially greater effect than one which relies upon imported raw products. It should be pointed out that the reverse is also true in that if we lose an industry that relies primarily on New York products, the negative effect on the total economy is greater.

Summary

Out of all these facts and figures, let us see if we can summarize a few key points with respect to agriculture's role in the economy of New York State.

First, it is clear that primary agricultural production and food manufacturing within New York State is a very important part of the state's economy. As much as 3% of direct employment is accounted for within primary food production and manufacturing. When one adjusts for the fact that most of this is concentrated in Upstate New York, it is obvious that the impact is substantially greater in that portion of the state. Also it is clear that the total impact upon the economy is substantially greater than would be indicated by the 3% of direct employment.

Second, it appears that agriculture has not grown in total in the last decade or in the last five years. This is particularly true when the numbers are deflated to remove the effect of the rapid inflation which we have had in the past five years. There is less cropland in production. There are some segments of New York agriculture where total production on an actual quantity

basis has declined. We also have experienced a reduction in employment in food manufacturing in all categories.

Third, it is clear that food manufacturing and marketing plays a key role in creating markets for New York State agricultural products. If agricultural production in New York State is to expand, it must be accompanied by, and in many cases led by, an expansion in food manufacturing and marketing capacity. In many cases the disappearance of markets through the closure of food manufacturing and processing plants has led directly to a reduction in the production of certain commodities in New York State. If these commodities are replaced with products that require a lower degree of manufacturing, then the economy in total loses.

Fourth, agricultural production and food manufacturing has one of the highest economic multipliers of any industry within New York State. Therefore, it should have high priority in terms of planning for retention and maintenance as well as for economic expansion.

Fifth, New York State agriculture sits on top of an enormous food market. With some of our products we have fairly well saturated the market, but with others it appears there is substantial room for growth in just meeting the demand within the Northeast, if we can beat our competition in other production areas. It is also clear that the decline in the economy in New York State in the last five years, and in the Northeast in general, has had a negative impact on the market for food produced in New York State.

A Plan for Development and Growth

In this final section let us look to the future and discuss growth and economic expansion. Agriculture should not be satisfied with anything less than participation in a growth industry. As we look to the future and try to plan how to bring about growth in the food and agricultural industry within New York State, we are dealing with a complicated situation. One complicating factor is the heterogeneous nature of New York's agriculture. Unlike the corn

belt where two crops dominate the agricultural situation, in New York we have not only a very important dairy industry, but a widespread fruit and vegetable industry as well as horticultural products, poultry and other livestock production.

In general, it appears there are three broad categories of factors which will impact upon the growth or decline of the food and agricultural industry in New York State.

The first and most important is the market demand for products produced within the state. To a large extent the nature of the demand for products is determined by factors beyond the control of those within the industry. In recent years we have seen shifts in consumer preferences which have had a negative impact on the demand and production of fluid milk and eggs. On the other hand, we have seen shifts in consumer preference which have had a positive impact on the consumption of wine and some other products.

The second broad category of factors relates to the profitability of food manufacturing within New York State. Here again we are dealing with a very complex situation because of the number of factors which determine profitability of any given industry at any given time. The key is the efficiency of production relative to competitors in other producing areas. Such factors as relative labor costs, the relative cost of energy, taxes, the extent to which regulation impacts on our industry more heavily than on competing industries in other states, all have to be taken into consideration. Managerial ability is a very important factor as is the potential supply of capital to the industry. All of these factors and others impact on the willingness of new firms to locate in New York State to utilize the raw products produced by our agriculture and the willingness of existing firms to stay in production or to expand production.

The third major category is the one which agriculture itself has the most control over and that is the profitability and efficiency of production of raw agricultural products within New York State. Again this must be looked at in terms of the relative cost of producing in New York State versus other producing areas. We know that there are some products which we can never produce efficiently within New York State and they will be produced elsewhere. We have seen trends in certain industry groupings where, in the production of eggs, for example, the center of the industry has tended to move to the South because of lower production costs. Unfortunately, this trend may be accentuated with rising energy costs. Another example could be what has happened in the wine producing industry with the tremendous expansion of grape production in California and other western states. In the long run it will have an impact on the production within New York State.

It is generally recognized that New York producers are strong, viable agricultural producers. They have excellent managerial ability. We have good natural resources. We have a strong research and extension system which can study problems and transfer the results to the producers. But as pointed out, if the market demand is shifting in a negative fashion or the profitability of manufacturing is not suitable, the efficiency of agricultural production goes for naught. At this point it is proper to ask the question, "Is there anything we can do about it? Can we plan for growth in the food and agricultural industry within New York State?" Certainly it is possible to take a more comprehensive look at the situation than has been done in the past.

First, we need to take a systems approach which examines each major component of the food and agricultural industry from production to consumption. We need to identify the strengths and the weaknesses of each of these subsystems, be it production of grapes, milk, apples, or eggs. We may find that the major growth deterrent is at the production level or maybe even pre-production as in the case of the lack of an effective pesticide or fungicide which limits the

efficiency of production of a certain crop. On the other hand, we may find the problem is at the consumption level and that we need a more efficient food manufacturing process. Once these studies have been done in depth, we are in a position to move on to step two which is to plan a comprehensive program to explore solutions to the negative factors or growth deterrents which have been isolated. This is where the college can play a major role. If we can organize our resources properly, with our research capability we should be able to take an intensive look at the various problems identified. Once these two steps have been completed, we are in a position to mount an aggressive campaign to foster the development of the food and agricultural industries within New York State. Certainly Cooperative Extension can take leadership in this phase.

What is desperately needed is one institution or organization which is systematically moving through the three steps outlined. We need to have a New York State Food Industry Development Institute. This institute should have four major participants. Agriculture which can be represented, either directly or through farm organizations and farmer cooperatives. The food manufacturing industry and the agricultural support industry should also be represented. The college should be represented and play a major role. And lastly, the state government, primarily the Commerce Department and the Department of Agriculture and Markets, should also be a cooperating agency within this type of a program. If such an institute could be established and properly funded and with a broad base of support for its findings, we might reverse the trends. Our competitors, be they farmers or firms, want our markets and are investing capital and brain-power in the hope that they can take them away from us. We can either drift along and watch this happen or mount our own campaign to fight back. The choice is ours.