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Even though the topic of my speech this morning has to do with marketing, I want to present a brief preface to set the stage by relating expected conditions in American agriculture in the year 2000. There is a project called "Social Sciences Agricultural Agenda Project", which met for the first time last year. It is is a group of approximately 100 agricultural economists, rural sociologists, sociologists and demographers from throughout the country. The purpose of the meeting was to generate a set of priorities and strategies by which these particular disciplines will address the apparent decline of rural economies throughout the country. This group met again this week in Houston. I was there during the first part of the week.

I want to mention three things I learned at this meeting that were surprising to me and will be somewhat surprising to you also. All of us think that rural America is primarily an agricultural based economy, but as it turns out, the statistics indicate a different picture. Eight out of ten individuals who live in rural America, do not make their livelihood from agriculture. One observation is that historically the U.S. has had an agricultural policy, but we really have not had a rural policy. Down the road, what seems to be emerging is that there is going to be more of an orientation towards rural economic development as compared to just agricultural economic development. An implication is that <u>non-agriculture</u> people will make policy decisions concerning the rural economy. On a macro scale, this change may have certain implications for resources that are allocated to the agricultural sector. That's one.

Secondly, there is a possibility that the U.S. will in the future rely more on its agricultural sector for its energy rather than importing petroleum inputs. Of yet, the technology has not been developed to create plastics from corn. There are firms processing gasahol or other petroleum substitute products from corn, but the technology to go beyond and make plastic bottles for Coke has not been developed to the point where it is economical.

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However, the rudimentary technology is in place. This has major implications for the agricultural economy as a whole. The number of acres of corn needed to supply the plastic needs of the country are phenomenal. Certainly, an economic technology is not available yet, but perhaps by the year 2000 those economies of scale will be developed.

Thirdly, again from a broader perspective, the world is much smaller now. There is no question that what occurs in Japan influences Topeka, Kansas, or Tully, New York. The linkages in the markets that exist currently, and which will continue to expand, are going to send international shocks. Whether they are exchange rate shocks or policy shocks in countries that we have very little influence on, these shocks are going to come down through markets and impact rural communities in the country. This presents larger challenges to individuals who make their livelihoods in American agriculture because they do not know how to understand nor influence outcomes in Guam, in Paris, or in the Middle East. So the U.S. Agricultural Sector will lose some control of it's markets because these external forces are affecting our markets.

Given these broad projections of the future, there are, however, things that can be done to capture the opportunities for marketing products--be they agricultural products or non-agricultural products produced in New York State.

Let me begin by stating the following propositions. As far as agricultural products are concerned, one of the major developments is that the diversity of product markets has increased. One of the driving forces behind this diversity is the foodservice sector. As you know, the foodservice sector encompasses outlets such as McDonalds, prisons, and institutions such as nursing homes or hospitals. Within this large realm of foodservice outlets, the end users of products have a much greater influence not only on what kinds of products are produced, but also on the packaging of the products and the delivery schedule of those products. If you get a contract to supply, for example, twenty nursing homes somewhere in Central New York or Pennsylvania, what they may want is a more diverse range of product every time your truck pulls up to the establishments or their warehouses. In agriculture we have been used to supplying and sending a truckload of lettuce somewhere. That may no longer be the case. Foodservice managers want a truck load of lettuce to also include tomatoes, cucumbers, radishes, carrots, (i.e., a mixed load of products). And what that requires is that the distributor or the supplier have the capacity to create that mixed load. Probably, a grower will not grow this kind of diversity of products on his or her farm. Therefore, there is a requirement for a distribution system that will allow for assembling carrots from grower X and cucumbers from grower Y, packaging them in the ways foodservice managers want, and distributing them through a system that meets the different requirements of the marketplace.

These marketing requirements will increase because of demographics--the number of individuals over 65 years of age is going to continue increasing, and, unfortunately, these individuals progressively will also be spending most of their lives in what we call institutional settings. More importantly, fewer and fewer people make consumption decisions for larger and larger numbers of individuals. This translates in the marketplace to more market power for the buyers as compared to the suppliers. One individual, be it a Safeway buyer, a P&C buyer, or a prison buyer, will make decisions for larger numbers of consumers and thereby will have more control and power in the marketplace. How producers counter this is by pooling resources so that you can have just as much market power in the marketplace.

Next, along with foodservice forces, you will continuously see differences in the diversity of ethnic foods that are being demanded. There is already some evidence of this occurring--particularly in Asian diets. Asian communities, both on the West Coast and to a lesser extent on the East coast, have different diets. People from the Caribbean have different diets. People from South America have different diets. The numbers of ethnic individuals in the country has increased and will continue to increase and they will demand the kind of products that they are used to eating. These are different products, but nonetheless, products that can be supplied by innovative growers. I don't have a list of these products, but such lists are available. For example, the population of Hispanics in the country by the year 2000 is going to be about 15 million. That is a large number of individuals that historically have had a different diet. As all of you know, we change our dietary consumption patterns very slowly, therefore you can expect that the products that Hispanic diets require, for example, will be in higher and higher demand.

Let me change the subject to another area. In fruit and vegetable markets, branding is emerging to play a major role. Campbell's soup company, for example, has devoted a significant amount of resources for creating a branded product line, a line similar to Dole bananas. Currently, you go into a store and you see Dole, DelMonte or Chiquita bananas. Each of these bunches of bananas is identified with a brand--whether it's Dole, Chiquita or any other company. I expect larger companies to come into the fruits and vegetables industry and brand products. In other words, you will go into a grocery store and instead of buying just tomatos from a bulk bin, you are going to see tomatos with Campbell's, or DelMonte, or with Dole stickers on them. One outcome of branding is that a lot more resources will be devoted to the promotion of the product. If Dole is going to invest money in stickers for each one of its' tomatos, they have to re-coup those investments. One way of recouping their investment is by increasing the margins of the product. All the advertising that is going into promoting a Dole tomato will be extracted at the retail level. Another outcome is that you, the producer, will most likely receive a higher price for your product. The downside is that Dole will require very specific specifications for delivery of the product. Additionally, they will want very consistent supply. There will be more contract growing. There will also be higher specifications for quality and some contractual arrangements by season and by volume. This is not going to happen overnight, but the market forces are there to drive these large companies to start branding. In addition, if a firm has a brand that it has been promoting and are trying to develop a good image for, the firm cannot afford to have, say a Dole tomato scare--because all the investment that went into that brand will essentially be eroded. To lessen the probability of this, the firm is going to have to maintain much more control of the whole production process--when you put the seed on the ground, when you deliver the product to the warehouse, and so forth because they cannot afford the risk of having some off-product go through the market with their brand.

Along with product branding, there is the issue of new products. Let me just give you an example of this. This newspaper ad is dated February 22, 1987. [Display full page newspaper ad] Although Empire apples are not new to you, this one page advertisement appeared in the

Sacramento Bee in Sacramento, California. Raley's Supermarkets placed this ad. Like I mentioned to you, here in New York Empire apples are not really a new product, but in California they are. When upscale supermarkets such as The Raley's chain promote and advertise Empire apples, significant volumes are demanded--not only in Sacramento, but in other places of California. In fact, in talking to some apple growers here in New York State, one of the risks they are trying to avoid is to over-extend themselves in new markets.

I think the Empire is a very good product and, if promoted well could capture a lot of markets outside New York. However, you need to "equilibrate" the amount of promotional funds devoted to promote the product with the ability to supply new markets. There have been individuals who have called sellers and said ".... I want two truckloads of Empires... " but the receiver of the call hasn't had the ability to supply them. The point that I am trying to make is that it is very important, with new products, to never over-extend yourself. If you give yourself a bad name in the marketplace by not being able to supply the demand, then fewer people will call you back. You do not want to take that risk.

A separate issue is a new product with which I have been involved at Cornell--new super-sweet corn. As you may know, these new super-sweet corns have been developed within the last five years. They have two to three times more sugar content than traditional sweet corn. The other thing that is most important about these varieties is that their shelf lives are two to three times as long as traditional sweet corn. What has happened in the market this year is that Florida, for example, has 90% of it's sweet corn acreage in super-sweet corn, compared with only ten percent of the acreage five years ago. That is a tremendous change within that short time period.

How does this change translate to New York sweet corn producers? Currently, these new varieties do not have good germination and they do not have good yields in cooler Northern climates. However, because buyers buy super-sweet corn in Florida during the late Winter and early Spring, they therefore want and demand from later season suppliers--New York--the super-sweet varieties. Consumers apparently like super-sweet varieties better. However, the real motivation for chain-store buyers is that they can buy super-sweet varieties and let them sit in the dock or warehouse for one or two days before moving them to a retail outlet without having product quality deteriorate. I personally have eaten some super-sweets and I don't think it is a much better product in terms of taste or flavor. Yet, from a supermarket chain buyer's perspective, super-sweets extend opportunities to market the product. The point that I am trying to make is that even though we think that consumers are really the driving force behind the demand for a product, a lot of times variables like extended shelf-life--which are important only to the supermarket chain buyers or larger distributors--drive demand. Ohio and Illinois are starting production of super-sweets. Indications are now that 15%-20% of the acreage in these two states is going to be super sweets. This is potentially a tremendous threat to sweet corn producers in New York because Ohio and Illinois are in the market when we are. If Ohio or Illinois can ship super-sweet corn to some markets that New York growers have historically supplied, then we may be in trouble. However, the good part is that some New York growers have already planted some super-sweet corn. Also, breeders are developing varieties that are oriented to colder climates. In the future, we won't get the reduced yields that we have gotten before.

Another item in the horizon is the creation of national promotion and research boards for fruits and vegetables. For example, the chairman of the board of the United Fresh Fruit and Vegetable Association, who just retired, proposed this. Well, I agree with this proposal. As you know, different commodities have their own promotional schemes and campaigns. However, an implication down the road is that there will be a significant amount of resources allocated to national promotion. For example, the American Milk Marketing Board, or whatever the national board for milk is, has historically had national campaigns to promote milk and milk products. If this is applied to the fruits and vegetables industry, one question will be--which fruits and vegetables are going to be promoted? Or, is it just going to be generic promotion of the healthiness and the well-being of individuals who consume fresh fruits and vegetables? I think the latter is the logical way to go. Regardless of which approach is taken, resources are going to be used more effectively and the market for fresh fruit and vegetable products is going to expand. Now this hasn't occurred yet, but the sentiment I see, is to support national promotion, but not research. Related to this, for example, is the national fresh juice industry which is primarily citrus, apple, and cranberry juice. Per capita consumption of these juices, as well as milk, has gone down. Not that much, but it has gone down. On the contrary, Pepsi and Coke consumption has gone up significantly. One of the strategies of these beverage companies is to convince each individual, to drink one or two sodas a day. The national per capita consumption of soda is two cans per person per day. A lot of people won't believe this fact, but it is true. On the other hand, per capita consumption of milk is less than three quarters of a glass while fruit juice is less than a half a can. Why is this? One of the reasons is advertising expenditures. A hundred million dollars per year are allocated to promote Coca Cola products and 80 million to advertise Pepsi. If you pool all the money that has been allocated to advertising and promoting fruit juices, it would be no more than 10 million dollars a year. The citrus industry allocates most of this money, but the ten million excludes citrus promotion. The non-citrus juice promotion is very small. If this continues, the strategy of some soda companies will be to have individuals drink a Coke instead of coffee or milk with breakfast. From my point of view, this has implications for society's health and to the producers of products from which juice is made.

Let me add two more things which are a little broader and will have an influence on agricultural markets. First, is the whole agricultural policy agenda. As you know, the 1985 farm bill has received a good amount of criticism from a number of sectors. Now the debate centers on the 1991 farm bill. One of the issues that is emerging, and will probably be quite evident, is that to a much greater extent non-agricultural interests will play a significant role in shaping the 1991 farm bill. Historically, most agricultural policy has been influenced to a significant degree by the agricultural sector of the country. This will no longer be the case. Consumers will play a more significant role in forming agricultural policy in the future as will the financial sector. What this implies, for example, is that the support for commodity price support programs or for market order programs may not be as great as agriculture has been used to. Currently, there are some 256 market orders in place for fruits, vegetables, and livestock products. Some say market orders are very good for the marketplace because they stabilize prices and delivery. Other individuals, primarily consumers, say that market orders may not be as good as people have led them to believe. Another implication is the allocation of resources. How much money will be allocated to the agricultural sector as compared to other sectors? Somewhere in the vicinity of 25 billion dollars is the estimate of what the 1985 farm bill has cost American tax payers. Will American tax payers continue to support such a transfer of resources to the agricultural sector?

Two closing issues, and one of them is certainly in the forefront of a lot of people's minds. This again is from the Sacramento Bee--May 24th, 1987--about a year ago--: [Display full page newspaper ad] "What Raley's is doing to help protect your family from pesticide residues in fresh produce." Raley's was the first supermarket, and this ad is one of the first ones that appeared in the media, to address the whole issue of pesticide residues. Now, as you know, it has gone beyond Raley's. Another supermarket chain in Southern California and one in the Northeast have embarked on a marketing strategy to promote pesticide-free produce product. There is no question that the sentiment, at the supermarket level, as well as at the consumer level, expresses concern about pesticide residues in food. What this does for producers is to put more pressure on obtaining both yields and quality without suffering the risk of having their product rejected because of pesticide residues. I don't think it's an issue that's going to go away, nor is it a fad that people will get over in about one or two years. I think it's going to have significant implications.

Currently, there are a number of research projects at major universities that address the marketing of organic produce. Five years ago, that kind of research effort did not exist. Organic produce consumption is still a small component of total produce consumption in the country, but it will continue to increase. Now I am not saying that all produce eaten by the year 2000 is going to be organically produced, but there are going to be pressures to produce a product that a consumer does not believe will harm him, her, or their children.

Associated with this, is this whole issue of imports. Twenty years ago the U.S. agricultural sector had a large surplus. In other words, the value of agricultural exports was large relative to the value of agricultural imports. The surplus was about 20 billion dollars. That is no longer the case because we import a lot of agricultural product. Fruits and vegetables are imported at higher prices than grains. Significant debates are going on as to whether we should establish a policy that checks more and more, as well as more efficiently, imports of fresh fruits and vegetables for pesticide residues. The current debate among producer groups and researchers in different parts of the country concerns the potential negative effects on domestically produced products. Domestic producers are walking a real thin line in regards to a policy that excludes imports based on this particular issue because consumers may not distinguish between imports and domestically produced products.

There is one last issue regarding exports. For example, the Agricultural Issue Center at the University of California has devoted a significant amount of resources to studying the marketplace for specialty crops. A series of papers were commissioned by the university to look at the competitiveness of California specialty crops. Specialty crops are defined as fruits and vegetables and some new livestock products. The reason I mention this is because significant resources are being apportioned to international marketing. This same resource allocation is not being met by New York State. Once California gets worried about not competing in the international marketplace, then New York producers should be just as worried, if not more. California is devoting considerable resources to insure "competitiveness" but it is also devoting resources to curb the volume of fruits and vegetables that come into the State, particularly from Mexico. So if California is worried about having stiff international competition, I think it is appropriate for us to also be worried.

This concludes my presentation. I'll be glad to answer questions.