

Changing Dynamics of World Fruit Markets

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Just five years ago, I was honored to be invited to talk to the IDFTA annual meeting on the subject of "World Apple Marketing Dynamics." Since the focus of my talk today is similar, I thought I should review my comments of five years of ago and see what has changed and what has not, what has come to pass as predicted and what has not.

A LOOK BACK AT 1998 FORECASTS

In 1998, I highlighted some positive factors affecting food markets such as the rise in the world's urban population, especially in developing countries. I pointed out that in the previous decade, while real incomes in developed countries grew at an annual rate of 2.6%, they grew in developing countries by 5.8% and in Asia by 7.9%. At that time, Asia was just slipping into economic crisis. I remarked that "recent setbacks in the Asian countries will slow market potential there and weaken the overall growth in apple demand for several years." That, indeed, came to pass.

I forecast rapid growth in world apple supplies by about 30% between 1997 and 2005. China would become an even more important player, but all the major traditional exporters

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would remain important. I expected the world varietal mix to continue to move away from the traditional cultivars such as Red Delicious and Golden Delicious and to newer cultivars such as Fuji, Gala and Braeburn. I expected competition from other fruits and snack foods to continue to grow and for bigger retailers to increasingly

dominate food distribution. "Their pricing and promotion strategies," I pointed out, "often run counter to improved returns to growers."

I saw the apple industry's biggest challenge as increasing per capita consumption in the face of an aging population, increased snack food competition and increasing demands from food distributors. I argued that the apple industry was not organized to mount the marketing effort needed and that any effort to introduce the needed marketing discipline would be unpalatable to many in the global apple industry. I concluded by saying, "The challenge ahead of the industry is scary. The only question is, is the challenge scary enough to get industry members to try bold initiatives. Only time will tell."

Time has indeed told its tale. The challenge was so severe that many nurseries, growers, packers, processors and marketers are no longer around to tell their tale. Many others have made radical alterations in their apple businesses. However, the pace of change has not slowed. The survivors face new and intensified challenges in the years ahead.

NO REDUCTION IN COMPETITION

The whole world food system is continuing to evolve to match a grab-and-go lifestyle. From tots to retirees, people lead extremely busy and mobile lives. A recent *Wall Street Journal* story reported that the average American driver spends 11% more time behind the wheel than in 1995. Mothers, once the great organizers of home meal preparation, drive 20% more than the average. They spend more time behind the wheel than they do in the kitchen. Similar trends are to be observed in every major city around the world. Needless to say, snack food manufacturers are churning out countless products to fit that grab-and-go lifestyle.

Competition from other fruits is also still intense. Production in the 1980s grew at the same rate as world population but zoomed ahead of population in the 1990s. There has been some slowdown in the last couple of years. However, that may be a temporary phenomenon. Bearing acres for all fruits worldwide still set new records in 2002. The growth in bearing acreage in the last decade suggests that production will continue to grow in the coming decade unless there are additional removals (Table 1).

Total bearing area for all fruits in 2002 was 20.2% higher than the average for the 1989-91

TABLE 1

Acreage harvested of major fruits, selected years, 1989-2002, world, China and all other countries.

Fruit	Region	1989-91 (ha)	1994-96 (ha)	1999-01 (ha)	2002 (ha)	2002 vs. 1989-91 % change
Apples	China	1,663,916	2,877,819	2,365,157	2,500,828	+50.3
	All other	3,408,892	3,424,236	3,178,115	3,196,930	-6.2
	World	5,072,808	6,302,055	5,543,272	5,697,758	+12.3
Bananas	China	127,006	179,710	242,987	264,000	+107.9
	All other	3,250,587	3,652,175	3,878,793	3,945,435	+21.4
	World	3,377,593	3,831,885	4,121,780	4,209,435	+24.6
Oranges	China	265,704	293,111	279,495	307,000	+15.5
	All other	2,897,381	3,222,458	3,368,117	3,349,332	+15.6
	World	3,163,085	3,515,569	3,647,612	3,656,332	+15.6
Other fruits	China	3,394,738	4,778,202	6,305,976	6,975,441	+105.5
	All other	26,299,803	27,729,614	28,636,611	29,128,273	+10.8
	World	29,694,541	32,507,816	34,942,587	36,103,714	+21.6
Total fruits	China	5,451,364	8,128,842	9,193,615	10,047,269	+84.3
	All other	35,856,663	38,028,483	39,061,636	39,619,970	+10.5
	World	41,308,027	46,157,325	48,225,253	49,667,239	+20.2

period. China was a major contributor to that growth, especially in apples and in other fruits. However, all other countries combined were still showing acreage increases in 2002.

Competition in apples is also likely to grow. While area harvested in apples peaked at about 6.4 million hectares in 1994, and fell 15.7% by the year 2000, it had again turned up in 2001 and 2002. By our estimates, world apple production can continue to grow through the year 2010. This means that supplies available for domestic consumption and export will also grow.

In a special analysis prepared for the March 2003 World Apple Report, we estimated that the 36 major producing countries for which there were data would, between 2002 and 2010, generate increased fresh apple exports of 1,076,000 metric tons and demand increased fresh apple imports of 556,000 metric tons, leaving an additional 520,000 metric tons (29 million 18-kg cartons) to be marketed in third countries. This will be a difficult task. World apple imports have been essentially flat since 1996. The biggest importer, the European Union, had peak imports of over 1 million metric tons in 1991 and 1992 and currently imports 30% less than that. Import increases in North America, Latin America and Asia have been due largely to increased interregional trade, for example, the influence of NAFTA in North America. Middle Eastern imports have been as anemic as oil prices. The other big net importer, Russia, is still recovering from the 1999 economic crisis. It will be challenging to find profitable outlets for these additional exports.

A similar situation lies ahead for concentrated apple juice (CAJ). More apple production inevitably means more apples processed and more production of CAJ. The increase is unlikely to be absorbed in the CAJ producing countries. So, added third country markets will have to be found for an additional 200,000 metric tons of CAJ.

VARIETAL MERRY-GO-ROUND TO CONTINUE

The worldwide move out of traditional varieties and into newer varieties has continued. If China is included, Fuji is now by far the most widely produced variety in the world. Excluding China, Red Delicious and Golden Delicious are still by far the leading varieties worldwide. However, Gala has moved into third place ahead of long-time favorite, Granny Smith. Fuji and Braeburn have also moved up in the rankings. Many more growers would have planted varieties like Fuji, Braeburn and Jonagold if the growing environment in their region had been more favorable.

As the price premiums for varieties like Fuji, Gala and Braeburn have shrunk, progressive growers have been pursuing many other options including Pink Lady®, Cameo, Honeycrisp, Pacific Beauty, Jazz, Pinova, Delblush, Ambrosia, etc. However, many future new varieties will be available only to growers in selected climatic zones and on a volume restricted basis. This so-called “club” marketing has major ramifications for the economics of the apple business, which I will discuss in “Flying Club Class—the Economics of Successful Marketing Clubs for New Varieties” in this issue of *Compact Fruit Tree*.

GROWING INFLUENCE OF RETAIL CHAINS

Four trends in food retailing have continued unabated since 1998:

1. Discounters such as Wal-Mart, Costco and Carrefour have increased their market share.
2. Most market regions are now dominated by fewer, larger food retailers.
3. Buyers are concentrating their purchases among fewer suppliers and demanding better quality and service at the same or lower prices.
4. Major retailers are penetrating international markets. The era of global sourcing is drawing nearer.

These retailing trends have major implications for suppliers of apples and apple products:

1. There will continue to be relentless pressure for better quality and more services at the same or lower prices.
2. There will be a scramble among suppliers to get big enough and efficient enough to be chosen as a preferred supplier or a category manager for one or more major retailer(s). Some of these alliances will be as a global supplier.
3. Smaller suppliers will have to scramble to find an underserved niche.
4. Suppliers will increasingly subject their growers to ever-higher performance standards.

CHANGES IN THE NATURE OF DEMAND

The common forces behind all these changes are the changing needs of consumers and the efforts by various players in the food marketing system to respond to those changes. In the second half of the twentieth century, there has been a remarkable movement of the income curve upward in many countries. More and more of society has moved from having modest per capita incomes to middle incomes to higher income brackets. That lifting of all boats has brought changes in how consumers view food and how food meets their changing needs (Table 2).

At the most basic level, food satisfies physical hunger. At the next level, consumers become concerned about health and nutrition, a more

cerebral need. At the third level, sensual taste and texture become important. At these three basic levels, the intrinsic attributes of an apple or any other food are of the greatest importance to consumers. However, at higher levels of income, consumers become more concerned with a food’s extrinsic (or value-added) properties. These values may be added through packaging, promotion, product placement, marketing services, etc. Consumers get emotional enjoyment from novelty or off-season availability. They can derive status or escapism from how the product is presented. At the top level, they seek satisfaction from assurances that they are eating a product that is environmentally friendly, upholds social justice, protects farm labor, etc. It should be noted that the first three levels are “we” centered. They are shared by almost all consumers and are part of our common heritage. The top three levels are increasingly “I” centered, based on the individual consumer’s personal lifestyle and ideology. They are much more difficult for a typical apple grower to understand or to empathize with.

By design or by accident, different products, marketers and retailers find themselves more strongly associated with one or more of these different levels of need. For example, traditional apple varieties like Red Delicious, Golden Delicious or McIntosh fitted well with the consumers’ need for intrinsic values in an apple. Gala, Fuji and Braeburn have been aimed more at consumers’ sensual and emotional needs. Pink Lady® and Jazz and the whole organic offering aim much more at added values such as status or social assurances. However, at this level, they face serious competition from exotic fruits like mangos or socially approved fruits like “fair trade” bananas.

Retailers have tried to straddle both intrinsic and extrinsic consumer needs. However, they too tend to have greater appeal at certain levels. Discounters like Wal-Mart enable people of modest incomes to taste a wide array of merchandise through their everyday-low-price philosophy. Traditional grocery retailers have tried to move up the needs ladder as their customers have become more affluent. However, while their customers have considerable discretionary income, they also have real limits. Costco aims to woo customers of middle incomes and higher with high quality at competitive

TABLE 2

The food needs ladder.

No.	Need	Type	Example	Apples	Retailers	Competitors
6	Activist	Assurances	Environment, workers		Whole Foods	Ben & Jerry’s
5	Social	Status	Exclusivity	Jazz, Pink Lady		S. Hemisphere apples, wine
4	Emotional	Enjoyment	Novelty, variety		Costco	
3	Sensual	Taste	Sweet/sour	Gala, Granny	Kroger	
2	Cerebral	Health/nutrition	Balanced diet	Reds, Goldens	Wal-Mart	McDonald’s
1	Physical	Hunger	Scavenger			Chinese apples

prices and a taste of novelty and excitement. Specialty retailers such as Whole Foods Markets sell a philosophy as well as the exclusive values that appeal to upper-income, me-centered consumers.

Even among apple marketers, some have grasped the importance of changing consumer needs and some have not. I would argue that China's expansion in the world apple market has been so disturbing because China still thought the rest of the world was at the same stage of demand as was China. It pumped out huge supplies of apples that are not geared to today's value-added markets.

In contrast, much of the expansion of the Southern Hemisphere apple industry was based on satisfying consumers' emotional needs such as novelty or variety. Southern Hemisphere suppliers have been among the leaders in moving up the needs ladder.

Ironically, many snack food manufacturers who once focused mainly on enjoyment, novelty, status and escapism are now having to move back down the needs ladder to place more em-

phasis on health and nutrition issues. At the same time, they have had to move up the needs ladder to pay more attention to environmental and other social issues. Fast food chains such as McDonald's have been struggling because they concentrated on food value for money (the basic needs) and got blindsided as their customers grew out of those needs. Even children today are growing up more rapidly. McDonald's is belatedly trying to bring more enjoyment and status to its changing customer base.

RETHINKING MARKETING

In view of these changes, apple producers and marketers need to rethink the entire premise of their operations. They need to redefine who their future customers will be. What products will these customers want? More specifically, what specific attributes will their products need to have to satisfy their changing consumers? Finally, how can they offer these products cost efficiently through the more concentrated distribution system while continuing to sustain their profitability?

An even bigger question for individual growers and packers is how they are to approach these new marketing challenges. Does the future lie in each grower or packer controlling his or her own future? Do a few larger firms need to emerge that have the resources to follow a new path? Is the future in niche marketing or through clubs? Or, is there a need to undertake broader collective actions at a national or even an international level?

CONCLUSION

The challenge ahead of the apple industry in the next few years will continue to be scary. What is not in doubt is that the pace of societal change around the world will continue. The apple firms that do not change in step will find themselves increasingly beleaguered. Making major changes will itself involve increased risk. However, no one in the future will prosper in the apple business by accident. It will only be those who intelligently reassess their options and make the needed changes that will still be in the industry five or ten years hence.