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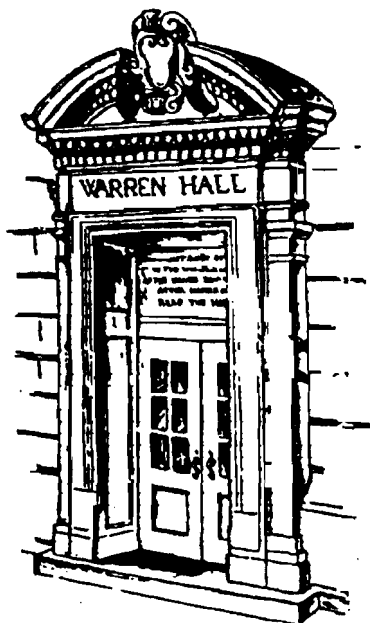
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Staff Paper

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THE EFFECTS OF INCREASED TRADE ON THE U.S. FRUIT SECTOR*

Enrique E. Figueroa**

I.) INTRODUCTION

The U.S. imported \$4.6 billion dollars worth of fresh and processed fruit products during the last marketing year. Conversely, we exported \$3.5 billion dollars for a net fresh and processed fruit products trade deficit of \$1.1 billion. However, exports represented a 7.6% gain over the previous year while imports only increased 5.6%. Apples are the number one export item followed by oranges, grapes, and "other" (not apple nor orange) juices. Bananas are by far the number one import item followed by red wine, table grapes, and apple juice concentrate. Tables 1 and 2 present figures for the major product categories for the latest marketing year.

During the past decade, certain products in particular markets showed phenomenal growth. For example, Washington State fresh market apple exports to Mexico increased from inconsequential volumes in 1987-'88 to 7-million cartons (42 lbs) in 1993-'94. Brazil imported over 1-million apple cartons from the U.S. in 1994-'95. Previously, the Brazilian market was closed to U.S. fresh market apple exports. U.S. pear exports increased from 1-million boxes in 1987-'88 to 6.8-million boxes in 1994-'95. Lime imports reached 144,000 metric tons (MT) in 1994-'95, compared to 34,000 MT in 1987-'88. Banana imports grew from 2.9 million MT in 1987-'88 to 3.7 million MT in 1994-'95. Dried apricots increased from 3.8 thousand MT in 1987-'88 to 14.3 thousand MT in 1994-'95. Finally, imports of apple juice concentrate increased from 123,600 kilo-liters of single-strength-equivalents in 1987-'88 to 979,900 in 1994-'95. Over the previous seven years, some of the above product flows increased by nearly 100% per year.

It is clear then, that within relatively short periods of time the allocation of product to new and/or developing markets can be quite significant. Perennial crops such as the fruits mentioned above, afford marketers an

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opportunity to know in advance the volume of product that will be available. Therefore, the planning of market development programs can be organized and financed with some lead time.

The growth of imports can be attributed to demographic changes in the case of limes, while the increased consumption of bananas can be attributed to relatively lower prices and nutritional concerns. More importantly, however, is the drawing of inferences based on the rapidly growing markets such as those described above--i.e. how does one filter "real" market trends from short term market developments?

What follows is a presentation and brief analyses of world trade issues facing the U.S. fruit sector. These issues need to be considered and analyzed at both firm and industry levels. Whoever best evaluates the impact of these issues on their firm or industry will be in a better position to compete effectively.

II.) PHYTOSANITARY BARRIERS

The use of phytosanitary barriers as trade barriers will likely increase in use or at least in their perceived use. Perhaps the most visible, current, and contentious example is with regard to U.S.-Mexico fresh market avocado trade. Scientists on both sides of the border (and in many case, trained at the same U.S. institutions) arrived at different conclusions with regards to the probability of particular pests infesting U.S. avocado groves if Mexican avocados enter the U.S. Northeast market. Another aspect of phytosanitary barriers is the cost of meeting the agreed upon protocols. For example, the protocol for exporting U.S. apples to Mexico. In short, in order for Northeast shippers to export to Mexico, they must provide the funds for supporting Mexican inspectors and their staffs in the Northeast. Northwest shippers have to adhere to the same protocols, but since the volume of exports is larger from the Northwest, the 'per carton' cost of supporting inspectors is lower in the Northwest and therefore makes them relatively more competitive.

The various sectors of the U.S. fruit industry should consider how well positioned the Animal Plant & Health Inspection Service (APHIS) is in negotiating phytosanitary export restrictions--i.e. negotiating with governments

representing potential import markets. Clearly, the agency's track record in protecting U.S. crops from foreign pests is quite good. However, negotiating a protocol for entering a foreign market with fruits produced in many states may result in a protocol that inadvertently may favor a particular producing region. Also, the principle of reciprocity when negotiating both import and export protocols may play a larger role than expected. A particular country may negotiate in good faith an import restriction, if, and only if, it feels its' counterpart is negotiating in good faith a particular export restriction—i.e. avocados from Mexico to the U.S. and apples from the U.S. to Mexico.

The use of these barriers will likely be challenged with the World Trade Organization (WTO), but it is not clear how the adjudicating mechanism and the corresponding judgments will impact world fruit trade.

III.) ECONOMIES OF SCALE IN TRANSPORTATION

The ability to develop and thereafter enter a market with volumes that support the chartering of vessels will provide such an industry or firm a significant competitive advantage. This is particularly true with north-south trade, but east-west trade may also see more product moving in chartered vessels. What are the economies of scale at shipping point that allow for the capturing of economies of scale in transportation? Is the former a necessary condition? A sufficient condition? It is likely a necessary, but not sufficient condition because 'large' at shipping point does not necessarily mean 'large' in transportation terms. However, if you are not 'large' at shipping point, you certainly will not be able to charter a vessel. The challenge for many shipping point operations will be how a business entity coordinates the 'packing-house sourcing' to be able to charter a vessel.

A related issue is how port facilities, particularly in developing country markets, can facilitate or impede trade. For example, the risk of having a chartered vessel held-up at port is much larger than the risk of having one container held-up. How does a firm weigh the relative port risks against the relative cost advantage of chartering a vessel? One approach may be to develop partnerships with import country retailers so that the retailer shares the import risk, but the exporter will, in turn, have to share the cost advantage of shipping in chartered vessels.

Indeed, having the ability to deliver fruit products to the retailer's warehouse may prove to be a competitive advantage for U.S. fruit exporters.

IV.) FIRM ORGANIZATIONAL STRUCTURE

The retailing industry in the U.S. is undergoing a structural transformation, both in terms of size and procurement mechanisms. A corresponding transformation has begun in the U.S. fruit shipping industry and this transformation will likely increase world competitiveness. What attributes should these new competitive firms or industries possess? First, the ability to arrive at quick decisions to respond to changing market conditions will be imperative. These decisions will likely affect the diversion of relatively large volumes of product, but this ability will develop and sustain market power. Firms should have an ability to source product year round and therefore firms will need to source product from both the northern and southern hemisphere. The interface between firm promotional support and commodity board/commission support will require greater analysis. How can promotional synergism's be developed between firms and boards/commissions? A related question is the development and sustenance of brands/labels. For example, will the Apple Country® logo for New York apples play a larger role than the particular label of a New York shipper? Or is the opposite true? Are the assessment dollars supporting the logo yielding a higher return than dollars allocated supporting an individual brand/label? Is trade promotion more advantageous than consumer level promotion? The answers to these questions as they apply to new foreign markets will have a significant impact on the relative success of U.S. fruit entering world markets.

V.) EXPORT TRADING MONOPOLIES

Grain export trading monopolies have been in existence, in one form or another, for many years. In fruit trade, they are relatively new—the New Zealand Boards, for example. However, other less formal 'single-desk' selling entities such as export trading companies have existed in fruit trade for some years. There are clear shipping-point advantages to these type of marketing entities, but at issue is the long-term return to grower members as well as whether such entities can withstand a challenge through the WTO. Will a challenge surface within the short-term

is difficult to ascertain. However, if such an entity is judged to be operating with some type of unfair trade advantage, then a challenge will be forthcoming and the result of such a challenge can have significant consequences (some positive and some negative, depending on a firm's reliance on such entities) to market participants. One clear outcome of such entities is the ability to develop and increase brand equity.

VI.) PROPRIETARY NATURE OF PRODUCTS

Biotechnology in conjunction with established breeding programs will yield a stream of new varieties within the near future. More importantly, biotechnology will provide avenues for enhancing particular attributes of certain existing varieties or suppressing other less desirable attributes. Marketers with an ability to offer a 'bundle' of fruit attributes in a particular product will likely increase their competitiveness and profitability. The rate of change of consumer preferences has increased and the development of new markets will command greater variation in product form. More importantly, the fusion of multiple product attributes from a particular shipping point will enhance competitiveness because such a shipper can offer a 'bundle' of attributes. Another model would be to license growers in various parts of the world. The patent holder would market all the fruit as a condition for licensing a grower to grow the fruit. No grower would enter such an arrangement unless the expected returns were sufficiently high to compensate the risk of not having the ability to market the product. Therefore, shipping areas with relatively more investments in technological innovation will likely have greater market penetration because technology allows the development of product attributes geared to specific markets.

VII.) CONTINUED GROWTH IN WORLD FRUIT DEMAND

The future of world fruit trade--particularly from a U.S. fruit exporters perspective--is one of opportunity. Both in terms of an expanding 'pie' and a potential for a bigger 'slice-of-the-pie'. The opportunities for being an exporter in season and an importer out-of-season will expand. The factors that will likely contribute to enhancing U.S. fruit exports to meet increasing world demand are: a.) minimize unit cost to increase margins; b.) increase and maintain

quality to increase unit price; c.) invest in storage technology to allow for greater flexibility in entering or exiting markets; and d.) invest in packaging technology to be able to extend shelf-life. The rate of growth of both population and relative incomes in developing countries will likely continue (Table 3 illustrates the diversity of import markets for New York State fresh market apples). U.S. consumption of fruit will also likely continue, particularly at the high income brackets of the market. Therefore, product prices will likely increase faster than inflation and therefore bode well for the industry.

Table 1: U. S. FRUIT IMPORTS, OCT., '94 – SEP., '95

<i>Product Category</i>	<i>Quantity -- 1,000 MT</i>	<i>Value -- \$1,000,000</i>
Fresh	5,680.8 (+5.8%)*	\$2,156.6 (+11.8%)
Wine & Wine Products	249.5 [†] (+1.9%)	\$1,098.7 (-6.8%)
Fruit & Vegetable Juices [°]	2,425.1 [†] (-24.2%)	\$634.9 (-7.9%)
Canned/Prepared	600.2 (-6.1%)	\$573.2 (0.0%)
Dried	48.4 (+5.4%)	\$69.6 (-6.8%)
Frozen	59.7 (+11.4%)	<u>\$65.0 (+8.5%)</u>
Total		\$4,598.1 (+5.6%)

* -- Percentage change from previous year.

[†] -- In 1,000 Kilo-liters

[°] -- Single Strength Equivalency

Source: *World Horticultural Trade & U.S. Export Opportunities*, Foreign Agricultural Service, USDA, December 1995.

Table 2: **U. S. FRUIT EXPORTS,** OCT., '94 – SEP., '95

<i>Product Category</i>	<i>Quantity -- 1,000 MT</i>	<i>Value -- \$1,000,000</i>
Fresh, Non-Citrus	1,475.5 (-5.2%)*	\$1,256.0 (+0.3%)
Fresh Citrus	1,212.9 (+4.9%)	\$704.8 (+8.7%)
Fruit & Vegetable Juices [°]	923.6 [†] (+16.0%)	\$629.9 (+22.1%)
Dried	214.4 (+6.5%)	\$400.5 (+4.3%) ∞
Wine & Wine Products	136.2 [†] (+4.6%)	\$216.0 (+15.8%)
Canned/Prepared	185.7 (+11.1%)	\$206.6 (+12.4%)
Frozen	52.8 (+6.2%)	<u>\$73.0 (+5.2%)</u>
Total		\$3,486.8 (+7.6%)

* – Percentage change from previous year.

[†] – In 1,000 Kilo-liters

[°] – Single Strength Equivalency

Source: *World Horticultural Trade & U.S. Export Opportunities*, Foreign Agricultural Service, USDA, December 1995.

Table 3: NEW YORK APPLE EXPORTS
(42 lb cartons)

COUNTRY	1993*	1994/95**	1995/96***
Bermuda		789	807
Brazil		20,537	20,295
Canada	not reported	281,220	368,031
Colombia	1,950	929	2,858
Costa Rica	54,617	51,228	22,171
Dominican Rep.		4,895	6,306
Ecuador	1,968		
Egypt		930	
El Salvador	950		
Germany (DOD)	5,000		
Guatemala	12,174	12,174	924
Honduras	5,266	2,924	3,248
Iceland	4,592	1,783	1,540
Israel		33,080	
Netherlands			1,003
Nicaragua	2,848		
Panama		959	920
Sweden			1,100
Taiwan	2,521		
Trinidad		892	
United Kingdom	477,762	199,780	190,172
Venezuela		840	
Unknown		32,928	25,383
TOTALS	569,649	645,897	644,758

* January 1-December 31.

** July 1-June 30.

*** July 1, 1995-January 12, 1996.

Source: New York State Apple Association.

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