

# Tariff At Risk: Can The Florida Citrus Industry Survive?

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## ABSTRACT

*For over 70 years, the Florida citrus industry has been protected from foreign competition by a tariff on orange juice. The orange juice tariff is currently being threatened by negotiations over the Free Trade Area of the Americas (FTAA) agreement and the World Trade Organization (WTO). Brazil is the leading foreign competitor to the Florida citrus industry. The tariff prevents Brazil from becoming a large citrus cartel that could take control of the world's orange juice market. The Florida citrus industry contributes \$9.1 billion to Florida's economy and provides jobs for 90,000 Florida citizens. Orange juice production is a key to the strength of Florida's economy. Florida citrus growers argue that the tariff is the most important issue facing the industry's survival. Without the tariff, Florida citrus growers are in danger of going out of business. This could devastate Florida's economy. It is important that Florida citrus growers and FTAA negotiators unite and intensify efforts to protect the citrus tariff and ensure the survival of Florida's citrus industry.*

## INTRODUCTION

The world's citrus market is dominated by two main players: Florida and Sao Paulo, Brazil. Eighty-five percent of the world's orange juice supply is produced by these two competitors. Brazil exports 99% of its juice. Florida exports only 6% of its juice ("Florida Citrus," 2003). In order to gain market share and thus stifle competition, Brazil is willing to sell its orange juice to the United States at prices that are below United States and Florida production costs ("Florida Farm Bureau," 2003).

As a result of the 1930 Smoot-Hawley Act, there is a tariff placed on imported orange juice. However, this tariff is currently being threatened by negotiations over the FTAA agreement. In an effort to unite the economies of the Americas, the WTO is calling for the gradual elimination of all tariffs within the 34 countries that participate in the free trade area. The FTAA discussions to eliminate the tariff are eminent as early as year-end of 2005 (LaVigne, 2003a).

Florida's citrus industry pumps \$9.1 billion into Florida's economy. In addition, it provides jobs to nearly 90,000 Florida citizens (LaVigne, 2003b). Orange juice production, which is integral to the Florida citrus industry, is a key to the strength of Florida's economy. If the orange juice tariff is reduced or eliminated, Brazil could become a large cartel and take control of the orange juice market. By offering prices below production costs, Brazilian orange juice could flood the United States' markets ("Florida Farm Bureau," 2003). Without the tariff, there is potential for the devastation of Florida's citrus industry (Zekri, 2003). Although large growers may be able to compete with Brazilian orange juice processors, small growers may be forced out of the livelihood that has supported generations of Florida citizens. Maintaining the current citrus tariff is the number one priority for the Florida citrus industry ("Florida Farm Bureau," 2003).

## THE FLORIDA CITRUS INDUSTRY: AN OVERVIEW

Florida produces more citrus than any other state in the United States. The citrus industry follows tourism as the state's second largest industry. It provides jobs for 90,000 Florida citizens, and pumps annual revenue of \$9.1

billion into Florida's economy. The mean employment growth rate for the citrus industry increases 12% per year. Florida citrus workers earn an average of 77% over the Florida minimum hourly wage of \$5.15 per hour ("U.S. Department of Labor," 2005).

As of September 2004, 748,555 acres of Florida's 10 million acres of farmland were planted in citrus ("Florida Agricultural Statistics," 2004). Almost all (90%) of Florida's citrus is processed into canned, chilled or frozen concentrate (Hodges, Philippakos, Mulkey, Spreen, & Muraro, 2001). The remaining 10% is shipped as fresh fruit. In 2003, citrus commodities accounted for 19% of all agricultural sales in the state of Florida ("Florida Agricultural Statistics," 2004).

During the 2003-2004 season, the majority of the harvest (57%) was grown in central, western and southern Florida counties. Polk County produced 42.2 million boxes. Highlands County produced 35.3 million boxes. Hendry County produced 33.9 million boxes. Desoto County produced 28.9 million boxes. St. Lucie County produced 25.8 million boxes. This totaled 166.1 million boxes. Total citrus harvested in the state of Florida was 292 million boxes, which represents 77% of the total United States' citrus production ("Florida Agricultural Statistics," 2004).

Although most of the Florida citrus industry's market is domestic, Florida also exports citrus to Canada and Japan. During the 2003-2004 season, citrus exports totaled more than 23.4 million cartons. Canada accounted for most of the Florida exports of oranges and specialty fruits such as Tangelos and temples. Japan was the top export country for Florida grapefruit (Hoag, 2004). Exporting Florida citrus increases sales and income, diversifies market risk by offsetting lags in domestic demand and reduces unit cost.

Florida growers' costs increase year after year. Tangible costs include labor, environmental factors, production, insurance, and worker protection standards. In addition, Florida citrus growers are responsible for intangible or phantom costs (Muraro, n.d.). Each year citrus growers spend countless hours attending meetings during which changing regulations are discussed. In addition, growers are required to expend time completing bureaucratic paperwork that details the ongoing changes. The Peace River Valley Citrus Growers Association in conjunction with the University of Florida, the Florida Department of Citrus and Florida Citrus Mutual are currently documenting the exact costs of phantom compliance.

## **THE COMPETITION: BRAZIL'S CITRUS INDUSTRY**

Brazil is a formidable competitor. In terms of its economy and population, Brazil is the largest country in South America. The country has a population in excess of 184 million. Its gross domestic product is \$1.375 trillion. Regardless of numerous economic shocks, between 2001 and 2003 Brazil's economy grew 1.1% per year. Brazil's economy is stronger than economies of all other South American countries. In addition, Brazil is expanding its presence in world markets. With 23% of Brazil's exports going to the United States and 20% of Brazil's imports coming from the United States, Brazil is a significant trading partner of the United States ("CIA World Fact Book," 2004).

The motivation for development of the Brazilian citrus industry was due in part to the 1962 freeze of citrus groves in the United States. The freeze resulted in great economic loss and slow recovery for the United States. By 1963, Brazil produced over 5000 tons of citrus. The economic impact was a \$2 million dollar incentive for Brazilians to produce more citrus. With ongoing growth of orange juice exports, Brazil is now the world's leading orange juice producer (Hoag, 2004).

Brazil exports 99% of its frozen concentrate orange juice (FCOJ). Brazil's largest market for FCOJ is Europe followed by North America. In 2004, Europe purchased 1,371 million single strength equivalent (SSE) gallons and

NAFTA countries purchased 234 million SSE gallons. Florida buys 15% of Brazil's FCOJ. This concentrate is mixed with Florida juice—a process that improves the color of Florida juice. The concentrate also makes up for seasonal supply deficits. Brazilian owned companies in Florida include Cargill Citro America located in Frostproof, Florida;

S.A. Louis Dreyfus et Cie located in Winter Gardens, Florida; Cutrale Citrus Juices U.S.A., Inc. located in Auburndale and Leesburg, Florida; and Citrosuco Paulista S.A. located in Alcoma, Florida.

#### Cost Advantages for Brazil

Florida produces approximately 457 boxes of citrus per acre. Brazil produces approximately 257 boxes of citrus per acre or a differential of 78% in favor of Florida. Nonetheless, Brazil reaps production cost advantages. University of Florida agricultural economists Thomas H. Spreen and Ron Muraro report Sao Paulo production costs to be \$259.69 per acre. Production costs in southwest Florida are reported to be \$721.68 per acre, which is a differential of 178% per acre cost in favor of Brazil (Muraro, Spreen, & Prozzan, 2001).

These cost advantages are due to Brazil's lack of environmental regulations, low worker protection standards, unregulated food safety standards, un-enforced child labor practices, low exchange rates and low labor costs. For example, Florida citrus workers earn \$60 a day compared to Brazilian workers who earn \$60 per week. In addition, the floating of the Brazilian Real, which was placed on the international market in 1999, led to a 31% decrease of the value of the Real ( Muraro, Spreen, & Prozzan, 2001). This in turn led to a decrease in harvesting costs and placed Florida citrus growers at an even greater cost disadvantage.

Costs in Brazil are further reduced because of child labor. In Brazil, an estimated three million children work on plantations that produce sugar cane, tea, tobacco, sisal and agricultural products (U.S. Department of Labor, 1995). During the peak harvest season, 150,000 children between the ages of 6 years and 18 years labor in Brazil's citrus fields. Fifty-four percent of these children are between the ages of 7 years and 14 years. These children work 14 hours per day for which they are paid an average wage of \$3.00. Although the government of Brazil supports the International Labor Organization's Conventions No. 138 and No. 182 that advocate a minimum age for admission to employment and humane child labor practices, neither of these conventions is implemented into actual law.

#### **DUMPING OF ORANGE JUICE INTO THE UNITED STATES' MARKET**

Dumping is an informal economic term that designates selling a product in a foreign country for less than either the price of the product in the domestic country or the cost of making the product. In order to gain market share and to increase competition, Brazilian processors are willing to sell their orange juice to the United States at prices that are below the United States' production costs ("Florida Citrus," 2003). In 1997, an anti-dumping order was mandated by an international court. However, Brazil continues to dump orange juice into the United States' market.

In a memorandum dated August 30, 2004, Ronald K. Lorentzen, Acting Director of the Office of United States Policy, wrote to James J. Jochum, Assistant Secretary of Import Administration, briefing him of Brazil's dumping activities ("Public Document," 2004). Pursuant to section 751(c) of the Smoot-Harley Tariff Act of 1930, the United States has monitored Brazil's dumping activity since 1987. The purpose of the scrutiny was to evaluate if revocation of the anti-dumping order would lead to continuation of Brazil's dumping of orange juice into the United States' market.

In order to determine if Brazilian companies were practicing ongoing dumping tactics, the weighted-average dumping margins from Brazilian citrus companies and the volume of imports of orange juice for the period before and after the issuance of the anti-dumping order were evaluated. After a 120 day review, it was reported to the International Trade Commission that the dumping margin for all Brazilian citrus companies was 1.69%. However, for Citrovita Argo Industrial, Ltda, a Brazilian citrus company that refused to comply with the anti-dumping order, the dumping margin was 15.98%. The report concluded that revocation of the anti-dumping order could lead to continuation and/or recurrence of dumping.

#### **HISTORY OF THE FREE TRADE AREA OF THE AMERICAS AGREEMENT**

The FTAA agreement was conceived at the Summit of the Americas that was held in 1994. The Summit brought together heads of state and government officials of 34 countries. In order to eliminate barriers to trade that were blocking third world countries from access to larger markets, it was proposed that a free trade area was needed.

Creating a free trade area of the Americas would allow the United States and its Western neighbors an opportunity to shape open markets for their benefit.

Free trade proponents seek to increase competition and reduce costs of a product or service to the consumer. The FTAA would offer poor countries the opportunity to prosper from exports and foreign investments. In addition, the United States and its allied countries would reap the benefit of cheaper goods and new trade related jobs. Further, the FTAA agreement would contribute to improved standards of living for citizens of third world nations and improve the health, labor, environmental and working conditions of the Americas.

Negotiations for the agreement are to be complete by the end of 2005. Timely enforcement will follow. With implementation, 56% of agricultural imports to the Western hemisphere will be duty free.

A successful, well-crafted FTAA deal will:

- provide a means to lessen the blow for workers and industries that might be adversely affected by unfair competition,
- advocate modern, effective business practices and strengthen behaviors that encourage long-term economic health, property rights, investor rights, health and labor standards, and environmental protections,
- back judicial systems that effectively enforce laws,
- discourage bureaucratic red-tape that encourages corruption and prevents fair competition,
- request civil society to monitor progress, and
- eliminate the rights of foreign investors to inhibit national, state and provincial authorities from protecting human health and the environment.

### **THE CITRUS TARIFF: A HISTORY**

The FCOJ citrus tariff was conceived with the passage of the Smoot-Hawley Act of 1930. Senate Finance Chairman Reed Smoot, a Republican from Utah, and Ways and Means Chairman Willis C. Hawley, a Republican from Oregon, were the leaders of the act. The Smoot-Hawley Act was a controversial piece of legislation (Trumbore, n.d.). The bill raised tariffs on farm products to the highest ever in American history. For example, a tax of \$.70 per SSE gallon was imposed on imported citrus juice.

Despite wide protests, President Hoover signed the bill into law. In retaliation, foreign nations shut-out United States' goods, which resulted in a sharp decline in United States' foreign trade. The tariff was not changed until 1947 when the General Agreement Tariffs and Trade (GATT) talks occurred in Geneva, Switzerland. At this time the tariff, was reduced to \$.35 per SSE gallon. A further reduction of the tariff was proposed in 1963 under President Kennedy and again in 1970 under President Nixon. However, the tariff was not reduced.

It was not until the Uruguay Round of GATT proceedings that the tariff on FCOJ was again discussed. At this time, a FCOJ tariff schedule for the major orange juice importing countries was implemented. A gradual reduction of the orange juice tariff has been taking place ever since. Today the citrus tariff is at \$.297 per SSE gallon on FCOJ and \$.1704 per SSE gallon for orange juice in the United States. See exhibit 1.

As a result of current FTAA negotiations, the reduction or elimination of the tariff is again a possibility. This tariff protects the livelihood of the Florida citrus industry. If the tariff is reduced or eliminated, the citrus industry could experience devastating consequences, which in turn, could serve an unrecoverable blow to the Florida economy and the citizens of the state of Florida.

### **THE FLORIDA CITRUS INDUSTRY AND THE ELIMINATION OF THE CITRUS TARIFF**

Florida citrus growers produce their product without government subsidies or price supports. This is in contrast to other commodities that realize benefits that equal 5% to 50% of the value of their production. In addition,

Florida growers sponsor advanced research projects that lead to knowledge of productive harvesting techniques and methods, Florida growers are recognized as the world’s most efficient producers of citrus (LaVigne, 2003a).

**Exhibit 1: FCOJ Tariff Schedule For Major Orange Juice Importing Countries Under GATT**

Year	US	Europe		Japan
		cents/SSE gal		
1994	35.01	19.00		30.00
1995	34.13	18.37		29.25
1996	33.24	17.74		28.50
1997	32.36	17.10		27.75
1998	31.48	16.47		27.00
1999	30.59	15.84		26.25
2000 and beyond	29.71	15.20		25.50

Source: (Muraro, n.d.)

Elimination of the citrus tariff could have a detrimental effect on the Florida citrus industry and the state of Florida. See exhibits 2 and 3.

**Exhibit 2: Costs Of Producing Oranges And Bulk Orange Concentrate For The U.S. Market**

(\$ per lb. Solid)	In Florida	In Brazil
Orange production costs	0.7849	0.4435
Orange processing costs	0.2034	0.1691
Shipping to port, storage, harbor charges		0.0292
Ocean freight, insurance, product inspection		0.1001
U.S. tariff		0.2890
Florida equalization tax		0.0299
Total costs	0.9883	1.0608
Total costs without U.S. tariff	0.9883	0.7718

Source: (Muraro, Spreen, & Prozzan, 2001)

**Exhibit 3: Financial Impact Of Tariff On Florida Orange Grove Profitability**

	Current Market	Impact Of Lost Tariff
Five-yr. Avg. orange yields/acre	365 boxes	
Five-yr. Avg. juice yields/box	6.5 lb	
Five-yr. Avg. juice yields/acre	2373 lb. Solids	
Five-yr. Avg. cash price/lb solids	\$0.89	\$0.69
Cost of orange production	\$.7849 per lb solids	
Net return per acre	\$249.00	(\$225.00)

Source: (Florida Agricultural Statistics Service, 2004)

In addition, it would not accomplish all of the goals of the FTAA, which are to increase competition, decrease cost to the consumer and contribute to overall global economic growth. If orange juice tariffs are reduced or eliminated, the price of United States’ imports of bulk FCOJ from Brazil along with the United States’ wholesale price of orange juice would fall by as much as 35%. Along with the price reduction, the volume of FCOJ imports from Brazil could increase because the Brazilian juice could be diverted from other markets into the United States (LaVigne, 2003b).

An orange tree does not begin to bear fruit until it is three to four years old. Thus, the supply of oranges cannot be manipulated in the short-run to react to price increases. As a result, the United States' on-tree price of juice oranges could plunge. This could, in turn, cause growers' rates of return to drop below the break-even point, which could result in widespread grove closures.

The ripple effect of these closures could represent harsh consequences for:

- nurseries that supply replacement trees to citrus groves,
- suppliers of fertilizer, fungicide, herbicide and insecticide,
- suppliers of irrigation and spraying systems, mechanical harvesters and farm implements,
- financial institutions that support the citrus industry,
- insurance companies that serve the citrus industry, and
- freight companies that haul citrus to processing plants (LaVigne, 2003b).

It costs Florida growers \$.99 to deliver a gallon of orange juice to a Florida processor. Brazilian companies pay \$1.06, which includes the \$.29 tariff per gallon. See exhibit 2. Without the tariff, the cost to Brazilian companies to deliver juice would drop to \$.78 per gallon. This would give Brazil a significant competitive advantage. Cost advantages combined with a cartel-like market structure enables Brazilian producers to adjust prices in a predatory manner.

In a global industry such as citrus, free trade alone cannot deliver the rewards of price benefits to consumers, increased competition and worldwide economic growth and prosperity. A reduction or elimination of the citrus tariff could encourage a global monopoly. In order to accomplish these objectives, the citrus tariff must be maintained. As the United States moves forward with its efforts to negotiate multilateral trade agreements, it is crucial to the state of Florida and to its citrus growers that the current tariff on imported orange juice is maintained.

#### **CAMPAIGN AGAINST THE ELIMINATION OF THE CITRUS TARIFF**

Florida citrus growers are waging a battle to preserve the current citrus tariff. Florida Citrus Mutual, a voluntary cooperative whose active membership consists of 11, 676 Florida citrus growers, is aiding Florida growers in their campaign to fight for their industry. In 2003, Florida Citrus Mutual formed a Citrus Tariff Oversight Committee (CTOC) that has 14 members. The committee oversees all industry coordinated efforts to preserve the citrus tariff. These efforts include the political, legislative and public relations aspects of the fight.

In addition, the citrus industry has garnered support from key political leaders. The leaders are: Florida Governor Jeb Bush; Congressman Adam Putnam; Agricultural Commissioner Charles H. Bronson; Bill Paxton and Joel Jankowsky from the House of Representatives; and Senators Bill Nelson and Bob Graham. Support measures include:

- a \$.015 per box tax that will support the Citrus Preservation Fund,
- active grower involvement with the CTOC,
- a public relations campaign that is entitled Citrus Matters,
- an informative Web site: <http://www.citrusmatters.com>, and
- support from regional allies including Costa Rica, Mexico and Belize.

#### **LIMITATIONS**

This paper was not the result of empirical evidence. It did not address the reason for Brazil's pursuit of the Florida market. Nor did it examine the direct impact of the tariff on Brazil's citrus industry.

## **FUTURE RESEARCH**

Future research should focus on the national citrus industry. In addition, future research should be directed toward industries such as textiles, steel and automobiles that have related tariffs. Although the direct impact can be measured, the economic multiplier effect needs to be evaluated in order to fully understand the total economic impact. On a broader scale, because global pressures can cause reductions in tariffs, the short-term and long-term employment impact should be studied.

## **SIGNIFICANCE TO THE INDUSTRY**

As the economy progresses down a global path, industries that are protected by tariffs should assess the economic impact of possible tariff reductions and/or eliminations. Globalization is contra-tariff by nature. Thus, it is possible that protective tariffs of the past will be threatened. In addition, because employment and government revenues are affected by tariff reductions and eliminations, federal, state and local governments should assess the impact of possible tariff reductions and/or eliminations.

## **SUMMARY AND CONCLUSION**

The elimination or reduction of the current citrus tariff could impose a negative economic impact on the Florida citrus industry and the state of Florida. Brazilian orange juice could flood the market, which could create orange juice prices that are below Florida growers' production costs. Smaller growers could have difficulty staying in business. Although larger companies are more capable of competing with Brazilian processors, there is no guarantee of their long-term survival. Keeping the current citrus tariff is the number one priority for the Florida citrus industry. Reduction or elimination of the tariff could allow Brazil to gain a monopoly on the citrus industry, set prices, and thus, make the United States dependent upon their orange juice.

Although it is impossible to predict exact cost effects of technological change or future citrus price behavior, the reality is that loss of the United States' orange juice tariff could harm the Florida citrus industry and the economy of the state of Florida. It is important that Florida citrus growers and FTAA negotiators unite and intensify efforts to protect the citrus tariff and ensure the survival of Florida's citrus industry.

## **REFERENCES**

1. *CIA World Fact Book*. (2004). Washington DC: Potomac Books.
2. Florida Agriculture Statistics Service. (2004). Retrieved January 20, 2005 from <http://www.nass.usda.gov/fl/facts/faf04/a06.htm>.
3. Florida citrus and international trade: Position of Florida citrus mutual. (2003). Retrieved January 1, 2005 from [http://www.ussugar.com/pressroom/press%20kits/citrus%20trade/international\\_trade.pdf](http://www.ussugar.com/pressroom/press%20kits/citrus%20trade/international_trade.pdf).
4. Florida Farm Bureau. (2003). Citrus tariff needed to protect \$9 billion industry. Retrieved November 28, 2004 from <http://www.floridafarmbureau.org/flag/sept2k3/citrus.html>.
5. Hoag, C. (2004, January 12). The state of Florida's citrus industry. *The Miami Herald*. Retrieved November 10, 2004 from <http://www.miami.com/mld/miamiherald>.
6. Hodges, A., Philippakos, E., Mulkey, D., Spreen, T., and Muraro, R. (2001). *Economic impact of Florida's citrus industry* (Rep. 01-2). Gainesville, Florida: University of Florida.
7. LaVigne, A. W. (2003a). A letter to the industry. *Citrus and Vegetable Magazine*. Retrieved January 20, 2005 from [http://www.citrusandvegetable.com/home/2003\\_MarMutualMatters.html](http://www.citrusandvegetable.com/home/2003_MarMutualMatters.html).
8. LaVigne, A. W. (2003b). FTAA keep tariffs on imported orange juice. *The Miami Herald*. Retrieved November 10, 2004 from [http://www.ussugar.com/sugarnews/trade/Imported\\_orange\\_juice.html](http://www.ussugar.com/sugarnews/trade/Imported_orange_juice.html).
9. Muraro, R. (n.d.). Compliance costs for Florida citrus. Retrieved January 1, 2005 from <http://www.lal.ufl.edu/Extension/compliancecostsurvey.htm>.
10. Muraro, R. P., Spreen, T., and Prozzan, M. (2001). Comparative costs of growing citrus in Florida and Sao Paulo (Brazil). Retrieved January 2, 2005 from <http://edis.ifas.ufl.edu/FE364>.

11. Public Document A-351-605. (2004 August 30). Retrieved January 30, 2005 from <http://www.ia.ita.doc.gov/frn/summary/brazil/E4-2082-1.pdf>.
12. Trumbore, B. (n.d.) Smoot-Hawley stocks and news archives. Retrieved January 21, 2005 from [http://www.buyandhold.com/bh/en/education/history/2002/smoot\\_hawley.html](http://www.buyandhold.com/bh/en/education/history/2002/smoot_hawley.html).
13. U. S. Department of Labor. (1995). *By the sweat and toil of children*. Washington DC: U.S. Government Printing Office.
14. U.S. Department of Labor. (2005). Retrieved January 2, 2005 from <http://www.dol.gov/esa/Minwage/America.htm#Florida>.
15. Zekri, M. (2003, November 26). Orange juice tariff necessary for good of Florida's economy. Ft. Myers News Press. Retrieved November 10, 2004 from [http://www.ussugar.com/sugarnews/trade/tariff\\_necessary.html](http://www.ussugar.com/sugarnews/trade/tariff_necessary.html).

#### **NOTES**