

An Assessment of the Attractiveness of the U.S. Fresh Orange and Grapefruit Industry

Nicole Campeau-McAllister, Kimberly Campeau-McAllister, and Jon C. Phillips

The United States orange and grapefruit industry is an important economic force. The citrus industry generates more than \$8 billion in economic activity in Florida alone (Florida Department of Citrus, 2004). In 2002, the U.S. exported 1,114 million pounds (\$302.3 million) of fresh oranges and 875.8 million pounds (\$201.8 million) of fresh grapefruit (Florida Department of Citrus 2003). Producers are mainly located in California, Arizona, Texas, and Florida. The U.S. industry is dominated by Florida, which produces about 75% of the U.S. orange and grapefruit crops. Although leading the industry in numbers, more than 90% of Florida oranges and 50% of Florida grapefruit are used for producing juices, not sold fresh. California leads in production of fresh oranges, and Texas leads in production of fresh grapefruit. California/Arizona grow 11% of fresh grapefruit produced in the U.S., while Texas produces 14%. (Florida Department of Citrus 2004). In the world market, the U.S. orange industry is second to only Brazil in production (USDA ERS 2002). This research examined the attractiveness (i.e., profit potential) of the fresh orange and grapefruit industry using Porter's (1980) five-forces model, a technique used to analyze an industry environment. According to Porter, the five forces which affect an industry's attractiveness are the threat of potential entrants, the degree of rivalry among existing competitors, the threat of substitute products, the power of buyers, and the power of suppliers. This research focused primarily on the agricultural-producer level, but also to some degree on the packer level. Data for this research were obtained by searching for relevant secondary sources and through key industry-informant interviews.

There is little threat of entry by new firms into orange and grapefruit production, due to significant entry barriers. An important entry barrier is the lim-

ited amount of land that is suitable for production of oranges and grapefruits. Most incumbent firms in the industry have established supplying relationships with buyers, developed by doing business with buyers for several years. Buyers in the industry tend to remain with specific firms because of their reputation for quality products, timely supply, superior service, and relationships built on trust. Due to these factors, buyers have significant switching costs related to establishing a relationship with a new supplier, which is a barrier to entry. Another factor is that this is an industry in which the larger firms fund research and development to create new technology, which gives them a competitive advantage. The implication is that the significant capital requirements for research serve as a barrier to entry. Adding to the capital requirement for entrants into orange and grapefruit production is the fact that substantial time is required from planting to getting a commercially viable crop. In fact, it typically takes from three to five years to start to receive returns. All of these factors tend to make the threat of new entrants small.

This industry has many sellers. For example, there are more than 12,000 citrus growers in Florida (Florida Department of Citrus 2003). Rivalry among established U.S. orange and grapefruit producing firms is very strong. This could, in fact, be viewed as a saturated market. Exit barriers for growers are a poor market for orange and grapefruit production land and a dearth of comparable job opportunities. Orange and grapefruit groves are not easy to sell. Not many people are trying to enter an industry that is already saturated, leaving growers few potential new producers willing to buy their property. Furthermore, because many producers have been in the industry much of their lives and have built up substantial human capital specific to orange and grapefruit production, the transition to another occupation is difficult. For these reasons, the degree of rivalry among existing orange and grapefruit production firms is high.

A major factor that shapes the industry environment is possible substitute products. Substitute

Campeau-McAllister and Campeau-McAllister are students at California State Polytechnic University, Pomona. Phillips is assistant professor of Food Marketing and Agribusiness Management and Director of the Center for Food Marketing and Agribusiness Solutions, California State Polytechnic University, Pomona.

products are always a threat, causing the orange and grapefruit industry to be aware of current consumer trends and to research ways to make their products more appealing to the public. To some degree, every food product is a potential substitute for every other food product. The increasing affluence and sophistication of American consumers has led to the diversification of the fruits included in their diets. Fruits like kiwi and mango were basically unheard of in the U.S. twenty years ago, but now are widely available in supermarkets. The increasing ethnic diversity of the American market reinforces this trend. In addition, American consumers are currently demanding more convenient foods. This has made fresh oranges and grapefruits relatively less attractive to consumers, because peeling these fruits is messy and inconvenient. Ready-to-eat, bagged salads, in contrast, have experienced large increases in sales in recent years, because they are convenient and time-saving. Grapefruits have been found to interfere with certain heart medications, causing target consumers to substitute away from this product. The threat of potential substitute products has been of greater concern regarding fresh oranges. The Spanish Clementine is a seedless, easy-peel fruit. It has recently become more preferred by consumers compared to the Valencia variety. The Valencia, which has seeds, has traditionally been grown in California. Thus, the threat of potential substitutes for fresh oranges and grapefruits is moderate to high.

Many orange and grapefruit producers buy their inputs such as fertilizers or packaging supplies (e.g., boxes and crates) instead of manufacturing their own. Because there are much fewer suppliers of these inputs than there are orange and grapefruit producers, the suppliers tend to have more power.

Suppliers control input prices because the orange and grapefruit producers need the inputs and do not have many suppliers to choose from. This situation of few suppliers in a saturated market occasionally results in a shortage of inputs. Due to the structure of the input-supply industry and the orange and grapefruit production industry, the power of suppliers is high.

Although certain factors within the industry may change from season to season, the overall U.S. orange and grapefruit industry environment is relatively unchanging. Whether large or small, there is a place for most existing firms within the industry; there is stability within these dynamics. The large firms maintain their size and their buyers, while smaller firms create longstanding relationships with niche markets. Due to the high level of four of the five forces, the fresh orange and grapefruit production industry is not especially attractive, but existing firms should be able to maintain a competitive yet secure livelihood.

References

- Florida Department of Citrus. 2004. "Florida Citrus: Cultivating an Industry." www.floridajuce.com/floridacitrus/aninfo/news13.htm
- Florida Department of Citrus. 2003. *Citrus Reference Book*. www.fred.ifas.ufl.edu/citrus/pubs/ref/index2.htm
- Porter, M. E. 1980. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. The Free Press: New York.
- United States Department of Agriculture Economic Research Service. 2002. "Oranges: The Most Consumed Fruit in America." *Fruit and Tree Nuts Outlook*. FTS-296.