

## Summary

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The North American greenhouse tomato industry has grown rapidly since the early 1990s and now plays a major role in the fresh tomato industry. However, relatively little is known about this new industry, in part because of the lack of reliable production, trade, and price data. Both analysts and industry members will benefit from a more comprehensive understanding of the rising greenhouse industry and its effect on the entire fresh field tomato sector.

### What Is the Issue?

Greenhouse tomato growers in the United States, Canada, and Mexico are investing in capital-intensive production facilities without a strong base of industry information. Some field tomato growers are feeling the effects of increased competition but have little information to assess the likely effect on their industry. The issues are basic. What is the structure of the greenhouse tomato industry? What are the strengths and weaknesses of the various parts of the industry? What is the current level of greenhouse tomato production and how has it grown? What is the role of trade? How have prices changed with the rapid growth of the industry? What impact has the greenhouse tomato industry had on the fresh field tomato industry?

### What Did the Study Find?

Total North American greenhouse tomato production for 2003 is estimated at 528,078 metric tons, from negligible amounts in the early 1990s. Canada is the largest producer with an estimated 42 percent of production, followed by the United States with 30 percent, and Mexico with 28 percent. Among the three countries, Canada was the industry's pioneer and is a market force during its March to December season. The strengths of its industry are high yields and consistent product quality. Canada's volume of summer tomatoes is so great that it is hard for growers in the United States and Mexico to compete profitably in that season. The main weakness of the Canadian greenhouse industry is that it does not produce tomatoes in the winter.

In the United States, the large greenhouse operations are located in the Southwest and West, where climate conditions enable them to produce tomatoes profitably in the winter, when prices are higher. The strengths of the U.S. industry are high yields, product consistency, and year-round supply. The U.S. industry is vulnerable to increasing competition from Mexico during the winter months, which could erode profits that carry it through the summer when prices are lower. To meet domestic demand, the United States imports over half of its supply of greenhouse tomatoes from Canada and Mexico.

Mexico is the latest entrant to the North American greenhouse tomato industry, but it already has more greenhouse tomato area than either the United States or Canada. However, average yields in Mexico are comparatively low. Mexican growers are using a wide range of technologies, not just high technology greenhouses with hydroponics. Mexico's main strength is climate conditions enabling winter production and the potential to be a year-round supplier. Mexico's industry is challenged by the high cost of capital,

high heating costs, inexperienced management, lack of infrastructure and dedicated input suppliers, and inconsistent product quality.

Between the early 1990s and 2003, North American greenhouse tomato area is estimated to have grown by almost 600 percent to 1,726 hectares. Production has also grown; from 1998 to 2003, North American greenhouse production grew 103 percent. Growth continues but is stabilizing in Canada and the United States, while continuing strong in Mexico. In 2003, in the United States and Mexico, the greenhouse shares of total fresh tomato production were 9 and 8 percent, respectively, but are likely higher now. In Canada, greenhouse tomatoes now completely dominate fresh tomato production, with an 89-percent share.

As the North American greenhouse tomato industry has expanded from market niche to mainstream status, tomato prices have declined. There have been two periods of very low prices. In summer 1999, beefsteak tomato prices fell to a new low, causing financial problems for a number of greenhouse growers. In 2000, the industry began to produce tomatoes-on-the-vine (TOV), which have been popular with consumers. The shift to TOVs took the downward price pressure off beefsteak tomatoes. TOVs have enjoyed a substantial premium over beefsteaks, but as more and more growers turned to TOVs, prices also began to decline, with a particularly rapid drop in summer 2004.

U.S. fresh tomato consumption is split about evenly between the retail and foodservice markets. Greenhouse tomatoes have made major inroads in U.S. retail channels, but they have not had much success in food service. An estimated 37 percent of fresh tomatoes sold in U.S. retail channels are greenhouse tomatoes. The retail quantity sold of all types of field tomatoes—round (mature green and vine ripe), roma, cherry and grape—increased until 2001, but has declined slightly since then. Mature green tomatoes, the backbone of the U.S. field tomato industry, have been impacted the most by greenhouse gains. The mature green tomato share of the retail quantity of fresh tomatoes sold plummeted from 1998 to 2003. However, higher retail shares for other types of field tomatoes have limited the erosion in the overall retail market share for field tomatoes. The growing foodservice market, where mature green tomatoes are preferred, has helped cushion mature green tomato growers from increased competition from greenhouse tomatoes.

## **How Was the Study Conducted?**

Since public data on the greenhouse tomato industry are scarce, this analysis rests primarily on extensive interviews with greenhouse and field tomato growers, marketers, and industry representatives in the United States, Canada, and Mexico. While there are still important data gaps, this study provides the first estimates of production and trade. As the industry grows and government statistics catch up, there will be a firmer basis for analysis.