Import Growth and the Impact on the Florida Strawberry Industry

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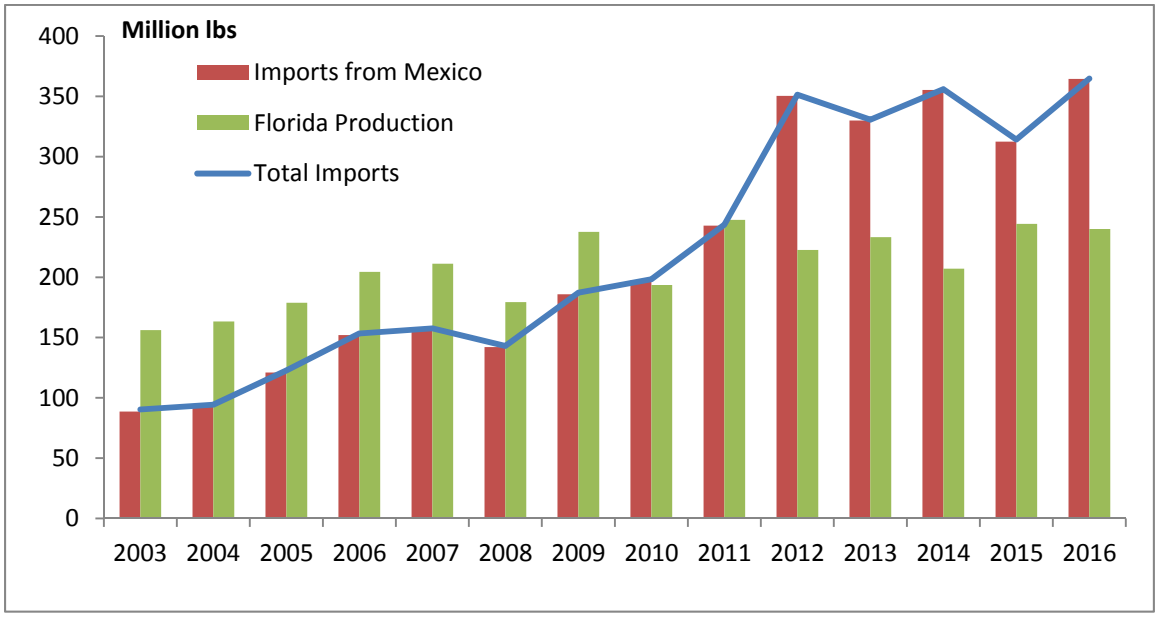
The United States is the second largest producer of strawberries after China. California and Florida account for about 98% of the U.S. total production. According to the National Agricultural Statistical Service, USDA (USDA, 2016), California produced nearly 2.8 billion lbs of strawberries from 41,000 acres in 2015 while Florida produced approximately 240 million lbs from 11,000 acres. Florida mainly produces fresh strawberries in the winter season, while California produces both fresh and frozen strawberries year round. The winter production in southern California is roughly at the same level with that of Florida (Suh, Guan, and Khachatryan, 2017).

Figure 1. Florida Production and Imports from Mexico



Mexico is another major supplier of strawberries in the U.S. market. Imported fresh strawberries from Mexico account for about 95% of total imported fresh strawberries in the U.S. market; the rest are mainly from Canada. In recent years, the U.S. strawberry industry has become increasingly concerned with the competition from Mexico, which also occurred to other

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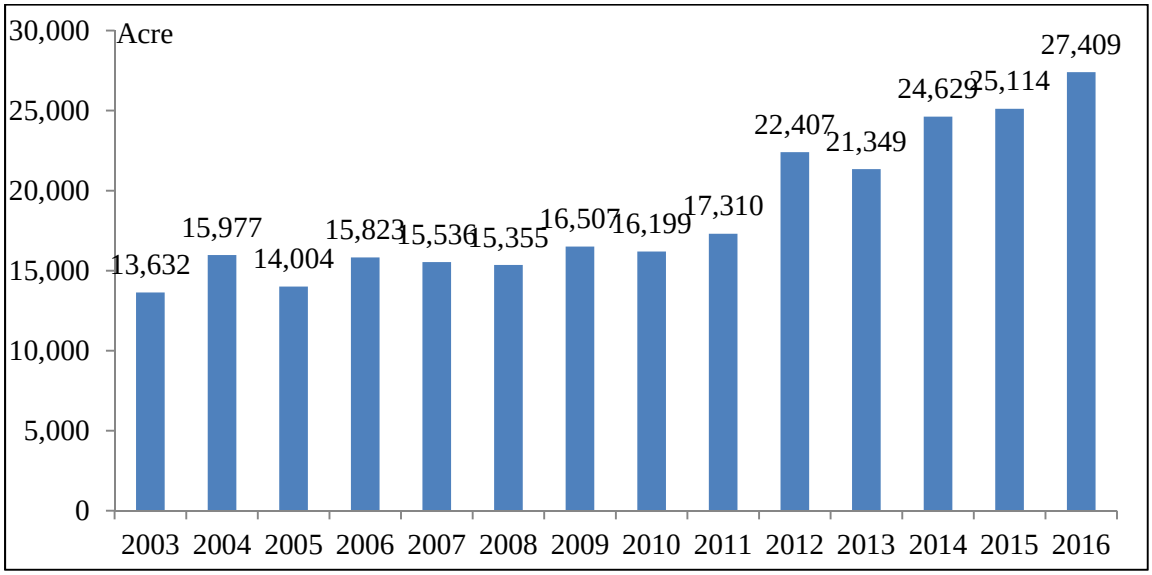
produce commodities, such as bell peppers and tomatoes (Wu, Guan, and Suh, 2017). According to the Foreign Agricultural Service (FAS), imported fresh strawberries from Mexico were 93 million lbs in 2004 but the import reached 355 million lbs in 2014. The volume increased fourfold in a period of 10 years (Figure 1). Mexico is a direct competitor of Florida and produces most of its strawberries in the winter season. In 2013, about 300 million lbs were imported from Mexico between November and April, while the total Florida production was 233 million lbs during the same period. Over the years, Southern California has extended its early production from early spring to late fall, which also creates pressure in the market for Florida growers. The NASS statistics show that the Florida production value fell from the peak of $362 million in 2010 to $245 million in 2012 and slightly recovered to $291 in 2015. The market share of Florida has decreased over the years and the *average* market share over 2010-2014 was 39% during the winter season (December through March).

The Mexican strawberry acreage increased dramatically in the last few years, from about 17,000 in 2011 to 27,000 in 2016 (SIAP, 2017), achieving a growth of roughly 60% in five years (Figure 2). As a result, the export to the U.S. reached a record high of 364 million lbs in 2016 (USDC, 2017).

Figure 2. Mexican Strawberry Acreage



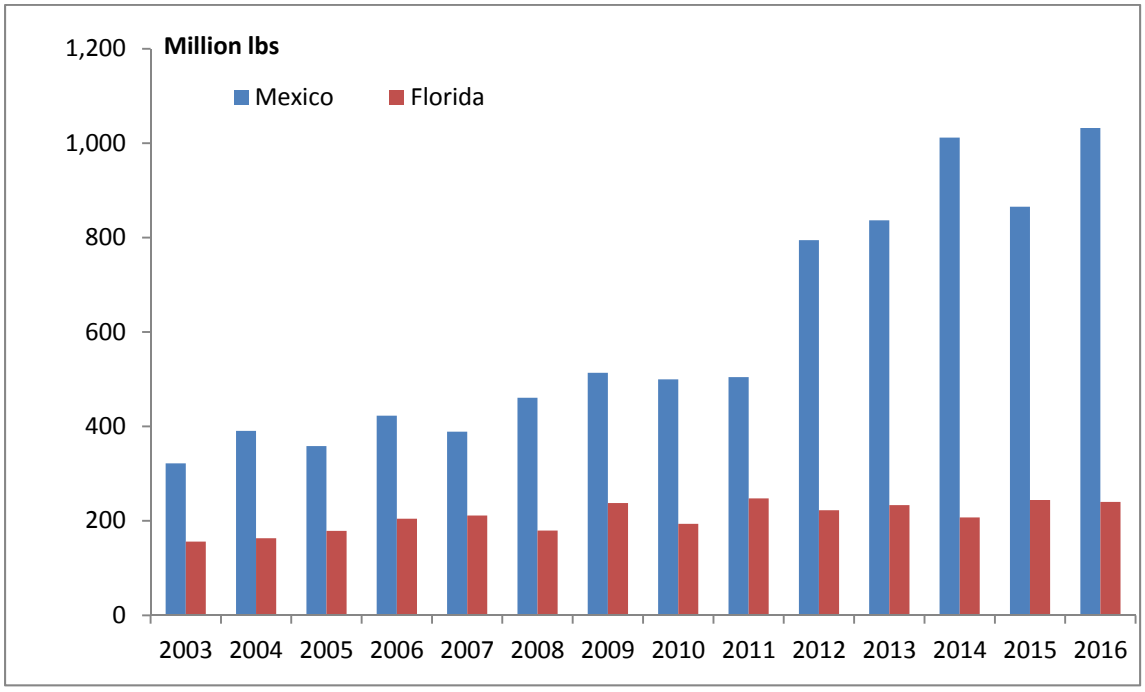
Source: SIAP, Mexico, 2017.

With the expansion of acreage, Mexican production increased significantly (Figure 3). In 2011, it was 505 million pounds; the amount doubled in 2016, reaching 1,032 million pounds. In the past, about a third of Mexican production was for fresh export market (Wu et al., 2017). In 2016, 35% of the total production was sold to the U.S. fresh market.

The expansion of the Mexican strawberry industry has been greatly facilitated by

technology adoption and policy support. One of the critical technologies is the use of high tunnels. High tunnels extend the production season and increase crop yield. The Mexico's Ministry of Agriculture has been promoting protected agriculture and provided subsidies to support investment in production facilities, such as greenhouse and high tunnels, under its "Strategic Project for Protected Agriculture" (Diario Oficial, 2010; Victoria et al., 2011). In the last few years, Mexican strawberry yield showed an increasing trend with the adoption of high tunnels. In 2011, the average yield in Mexico was 30,000 lbs per acre; it increased to 41,000 lbs per acre in 2014. In contrast, Florida only produced an average of 25,000 lbs per acre during the same period.

Figure 3. Mexican and Florida Strawberry Productions



Note: Mexico production includes fresh and frozen.
Source: USDA and USDC, 2016

In 2013, the Mexican government stated their industry goal to double its strawberry production capacity (Fresh Fruit Portal, 2013; Guan et al, 2015). Achieving that goal would mean Mexico will have a total of 43,000 acres of strawberry, which will further solidify its dominant market position in the winter season. The increasing competition from Mexico has prompted an important question: What are the effects of imports from Mexico on the Florida strawberry industry? An analysis by Suh, Guan and Khachatryan (2016) using winter strawberry data over 2010-2014 showed that a 1-million-lb increase in Mexican weekly shipments *on*

average would cause the Florida price to drop by 47 cents per flat. To put that in perspective, Florida *average* weekly shipment over the entire season is about 12 million pounds (weekly shipments vary over the season and peak in February). The authors further conducted a scenario analysis, showing that, if other things (such as acreage and marketing) are held constant, a 25% increase in imported strawberries could cause a reduction of $2,500 per acre in farm revenue. Given the fact that the current profit margin is either very low or even negative, losing these additional amounts would pose further challenges to the Florida industry.

To address the potential challenges, there are several areas the Florida strawberry industry could work on, which include adoption of new technologies and development of new market, among others. The surging Mexican export to the U.S. was mainly driven by its competitive advantages in labor cost. The labor cost in Mexican strawberry production is approximately $5,000 lower per acre and is less than half of that of Florida (Wu, Guan, and Garcia-Nazariega, 2017). Therefore, development and adoption of labor-saving technologies is critical and will have a fundamental impact on the market position of the Florida industry. Development of new market is also important. It could increase the market demand as well as reduce the pressure of oversupply in the existing market. Growers could also explore changes in production and management practices, for example, double cropping, to diversify and increase farm revenue.

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