Competition in the fruit and vegetable market: Why is Florida losing the battle to Mexico?

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Outline

• Industry overview
• Mexican competition
• What’s driving import growth?
• Areas to work on
• Conclusions
Overview

• Florida fresh tomatoes: #1 in total value, >50% in 2005, 36% in 2015

• Strawberries ranked #2, in both production and value #1 in winter strawberry
U.S. Fresh Tomato Production

Million lbs

Year | Production (Million lbs)
---|---
2000 | 3,959
2001 | 3,959
2002 | 3,959
2003 | 3,959
2004 | 3,959
2005 | 3,959
2006 | 3,959
2007 | 3,959
2008 | 3,959
2009 | 3,959
2010 | 3,959
2011 | 3,959
2012 | 3,959
2013 | 3,959
2014 | 3,959
2015 | 3,959
2016 | 2,044
2017 | 2,044
Florida Fresh Tomato Production

Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service
US Fresh Tomato Value

Florida Strawberry Production

Source: National Agricultural Statistics Service (NASS), USDA
Mexican tomato imports account for >90% of total imports
FL Tomato Production & Imports from Mexico

Million lbs

Imports from Mexico
Florida Production

Source: U.S. Department of Commerce
Fresh Strawberry Imports & Origins

Source: US Census Bureau, DOC
What’s driving import growth?

- Trade agreement
- Exchange rate
- Labor cost difference
- Government support
- Regulation
Tomato Suspension Agreements

Setting the reference/floor prices for Mexican tomatoes
NAFTA took effect: Jan 1994
1st Suspension Agreement 1996

- Reference Prices – Open field ($/lb)

<table>
<thead>
<tr>
<th>Agree. Dates</th>
<th>Winter (Oct 23-Jun 30)</th>
<th>Summer (Jul 1-Oct 22)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td></td>
<td>0.2068</td>
</tr>
<tr>
<td>1998 amend.</td>
<td>0.2108</td>
<td>0.1720</td>
</tr>
<tr>
<td>2003</td>
<td><strong>0.2169</strong></td>
<td>0.1720</td>
</tr>
<tr>
<td>2013</td>
<td><strong>0.3100</strong></td>
<td><strong>0.2458</strong></td>
</tr>
</tbody>
</table>
Floor Prices & Weeks Where Prices Restrained by Floor Prices
Imports still growing rapidly

Source: U.S. Department of Commerce
U.S.-Mexico Trade in 2016

- Trade with Mexico totaled $579.7 billion. Exports $262.0 billion; imports $317.6 billion. Deficit $55.6 billion (goods deficit $63.2 billion).

U.S. total exports of agricultural products to Mexico totaled $18 billion in 2016, our 3rd largest agricultural export market. Leading domestic export categories include: corn ($2.6 billion), soybeans ($1.5 billion), pork & pork products ($1.4 billion), dairy products ($1.2 billion), and beef & beef products ($975 million).

U.S. total imports of agricultural products from Mexico totaled $23 billion in 2016, our 1st largest supplier of agricultural imports. Leading categories include: fresh vegetables ($5.6 billion), other fresh fruit ($4.9 billion), wine and beer ($3.1 billion), snack foods ($2.0 billion), and processed fruit & vegetables ($1.5 billion).
Exchange Rate

Mexico-US Exchange Rate (US$/Peso)
Exchange Rate

Mexico-US Exchange Rate (US$/Peso)
Labor Cost Gaps

- Mexican Agricultural Wage ($/Hour) vs Florida Minimum Wage ($/Hour)
Tomato Labor Cost Gaps

- Southwest Florida Tomatoes 2014/15 (Van Sickle, 2016): for **Mature Green Tomatoes**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Farm Labor</td>
<td>$800/acre</td>
</tr>
<tr>
<td>Tractor Driver Labor Expense</td>
<td>$466.8/acre</td>
</tr>
<tr>
<td>Pick, Pack and Haul</td>
<td>$2.05/box</td>
</tr>
<tr>
<td><strong>Total (1700 boxes)</strong></td>
<td><strong>4751.8/acre</strong></td>
</tr>
<tr>
<td><strong>Unit Labor Cost($/box)</strong></td>
<td><strong>$2.80/box</strong></td>
</tr>
</tbody>
</table>
Tomato Labor Cost Gaps

- Labor Costs of Greenhouse Tomatoes in 2015 at Chiaulta, Mexico (M. J. Rojas, 2016):
  - 500 m$^2$ greenhouse (0.123 acre)
  - Production: 10,700 kg (943.58 box)
  - Labor Costs: 27,180 pesos (US$1649.77)
  - Unit labor cost: $1.75/box $\rightarrow$ ~ 40% cheaper
  - Yield $\rightarrow$ 7640 boxes/acre $\rightarrow$ 4.5 times higher than Florida’s
## Strawberry Labor Cost Gaps

Labor costs of major tasks in strawberry production

<table>
<thead>
<tr>
<th>Major Items</th>
<th>Florida (2014/15)</th>
<th>Mexico (2013/14)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$/acre</td>
<td>$/flat</td>
</tr>
<tr>
<td>Bedding</td>
<td>177</td>
<td>0.06</td>
</tr>
<tr>
<td>Planting</td>
<td>351</td>
<td>0.12</td>
</tr>
<tr>
<td>Cutting, hoeing and weeding</td>
<td>943</td>
<td>0.31</td>
</tr>
<tr>
<td>Spraying</td>
<td>61</td>
<td>0.02</td>
</tr>
<tr>
<td>Harvesting</td>
<td>6,900</td>
<td>2.3</td>
</tr>
<tr>
<td>Sub-total</td>
<td>8,432</td>
<td>2.81</td>
</tr>
</tbody>
</table>
Strawberry Labor Cost Gaps

- Total labor costs for 2014/15
  - Florida: $10,774 per acre
  - Mexico: $5,012 per acre
  - Gap: $5,762 per acre
Mexican Government Support

• National Development Plan
• One objective: Increase competitiveness of Mexican ag products
• Managed by SAGARPA
• 2013-2016: total budget 264 billion pesos (US$15 billion)
• 2015: actual support 70B pesos = US$ 4.2 billion

• Programs under 2007–2012 National Development Plan
  1) Support Program for Investments in Equipment and Infrastructure
  2) Agricultural Income Enhancement for Better Living (PROCAMPO)
  3) Prevention and Risk Management
  4) Capacity Development, Technological Innovation, and Rural Extension
  5) Sustainability of Natural Resources
Mexican Government Support

- Support Program for Investments in Equipment and Infrastructure
  1) agriculture, livestock, and fisheries
  2) protected agriculture
  3) provision of electricity to aquacultural farms
  4) fisheries and aquacultural infrastructure
  5) postharvest management
  6) modernization of fishing boats and improvement of fishing operations
  7) genetic resources (for agriculture, livestock, and aquaculture)
  8) irrigation technology
Protected Agriculture

- Support Rules for Protection Structures across Years

<table>
<thead>
<tr>
<th>Structure</th>
<th>Amount per ha * (1000 pesos/ha)</th>
<th>Maximum amount (1,000 pesos/per project)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro-tunnels</td>
<td>100 N/A N/A</td>
<td>1,000 N/A N/A</td>
</tr>
<tr>
<td>Macro-tunnels</td>
<td>200 90 150</td>
<td>1,500 2,700 2,700</td>
</tr>
<tr>
<td>Shadehouses</td>
<td>400 300 300</td>
<td>2,400 2,700 2,700</td>
</tr>
<tr>
<td>Anti-hail mesh structures</td>
<td>N/A 70 100</td>
<td>N/A 700 1,000</td>
</tr>
<tr>
<td>Greenhouses</td>
<td>1,200 900 900</td>
<td>3,000 2,700 2,700</td>
</tr>
</tbody>
</table>

Note: Per hectare support rules are 50% of cost per hectare or the amount listed, whichever is lower.
## Protected Agriculture

### Mexican Support for Protected Agriculture, 2001–2016

<table>
<thead>
<tr>
<th>Year</th>
<th>Support Amount (in 1,000 pesos)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001–2006</td>
<td>925,700*</td>
</tr>
<tr>
<td>2007–2008</td>
<td>1,401,100*</td>
</tr>
<tr>
<td>2009</td>
<td>N/A</td>
</tr>
<tr>
<td>2010</td>
<td>N/A</td>
</tr>
<tr>
<td>2011</td>
<td>598,895</td>
</tr>
<tr>
<td>2012</td>
<td>400,179</td>
</tr>
<tr>
<td>2013</td>
<td>504,593</td>
</tr>
<tr>
<td>2014</td>
<td>441,470</td>
</tr>
<tr>
<td>2015</td>
<td>281,482</td>
</tr>
<tr>
<td>2016</td>
<td>504,551</td>
</tr>
</tbody>
</table>

Note: * denotes total amount over the period. Average exchange rates were used.
Mexican Protected Production Area

- Tomato Protected Area
- Total Protected Area
- Subsidy - cumulative

- Acres
- Million pesos

Year: 2001 to 2016
Mexican Protected Production Area

- % of Crops under Protected Production Area in 2015
# Irrigation Technology


<table>
<thead>
<tr>
<th>Year</th>
<th>Support Amount (in 1,000 pesos)</th>
<th>Amount (in 1,000US$)</th>
<th>Covered Acrage (Acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>1,305,496</td>
<td>98,342</td>
<td>223,783</td>
</tr>
<tr>
<td>2014</td>
<td>1,598,000</td>
<td>115,462</td>
<td>288,142</td>
</tr>
<tr>
<td>2015</td>
<td>1,605,272</td>
<td>97,260</td>
<td>289,382</td>
</tr>
<tr>
<td>2016</td>
<td>1,741,360</td>
<td>89,599</td>
<td>278,408</td>
</tr>
</tbody>
</table>
Post-Harvest Management

- Mexican Support for post-harvest management

<table>
<thead>
<tr>
<th>Year</th>
<th>Support Amount (in 1,000 pesos)</th>
<th>Amount (in 1,000US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>1,695,273</td>
<td>122,491</td>
</tr>
<tr>
<td>2014</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2015</td>
<td>1,369,000</td>
<td>82,970</td>
</tr>
<tr>
<td>2016</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
WHAT CAN WE DO?

Industry:
• Innovate and Change, and be Competitive, but this is will be a slow process.

Government:
• Stop Mexican subsidization
• Reform H2A to reduce labor cost
• public investment in research and development, e.g., in
  • **Mechanical Harvest R&D**
  • **2018 Farm Bill: budget and priorities**
Concluding remarks

• Industry declining due to increased competition.
• Surging Mexican imports due to subsidy, labor cost gaps...
• Mexican subsidy accelerated technology adoption and growth of imports

• NAFTA/Suspension Agreement are being renegotiated
• FAIR trade practice
• PR campaign for Florida industry

• Reform H2A program
• Increase support in R&D - mechanical harvest
• 2018 Farm Bill campaign
Questions?

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