

Some Insights on the N. American Fresh Produce Industry in the Context of NAFTA Renegotiation

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for

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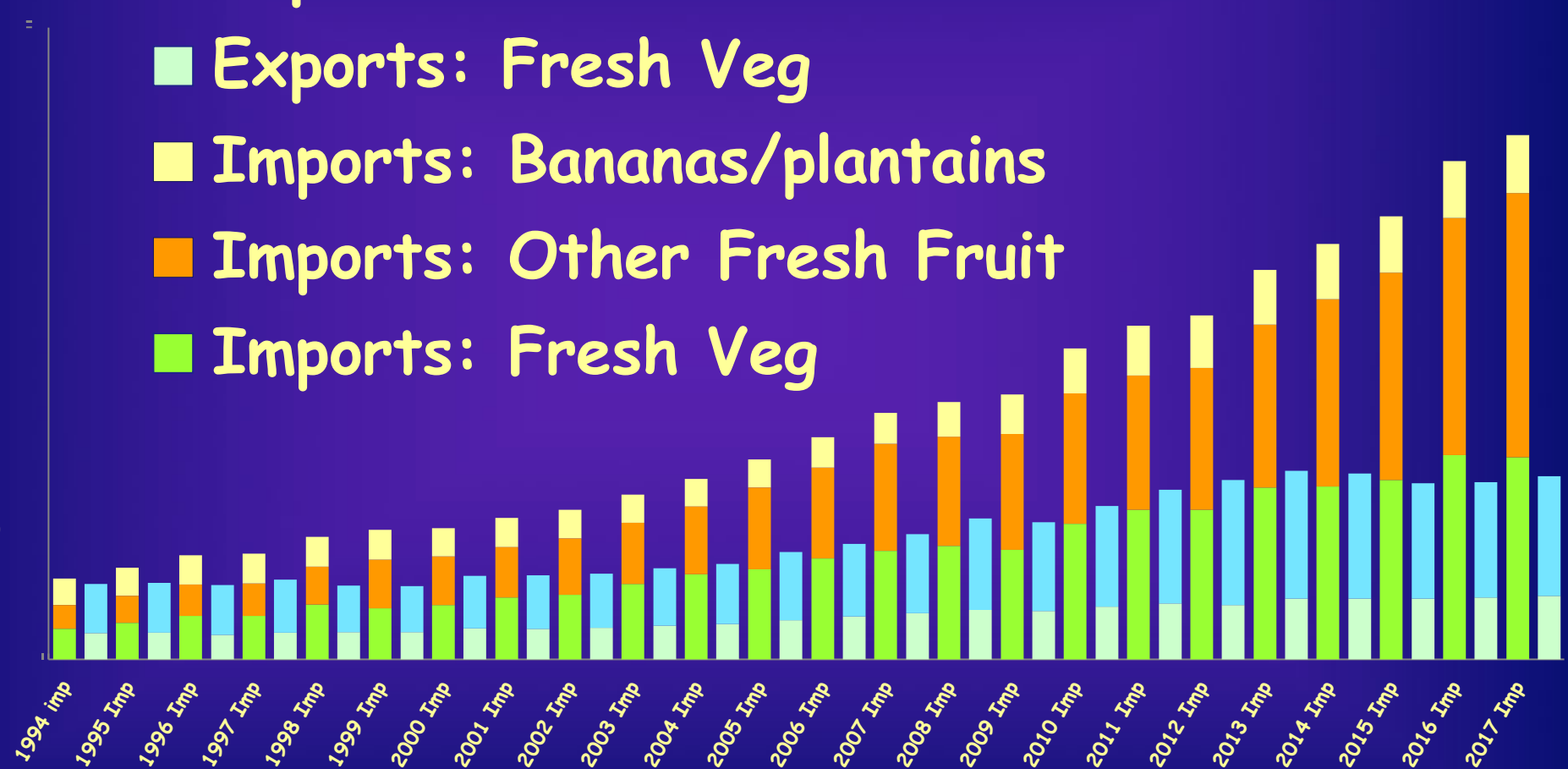
Agenda

- US international trade in fresh produce (Note: perishability, the need to harvest and ship daily, seasonality, and consumer demand for year-round availability all drive trade.)
- Changing N. American fresh produce trade landscape
- Fresh tomato sector
- Fresh berry sector
- Conclusions

US International Trade in Fresh Produce

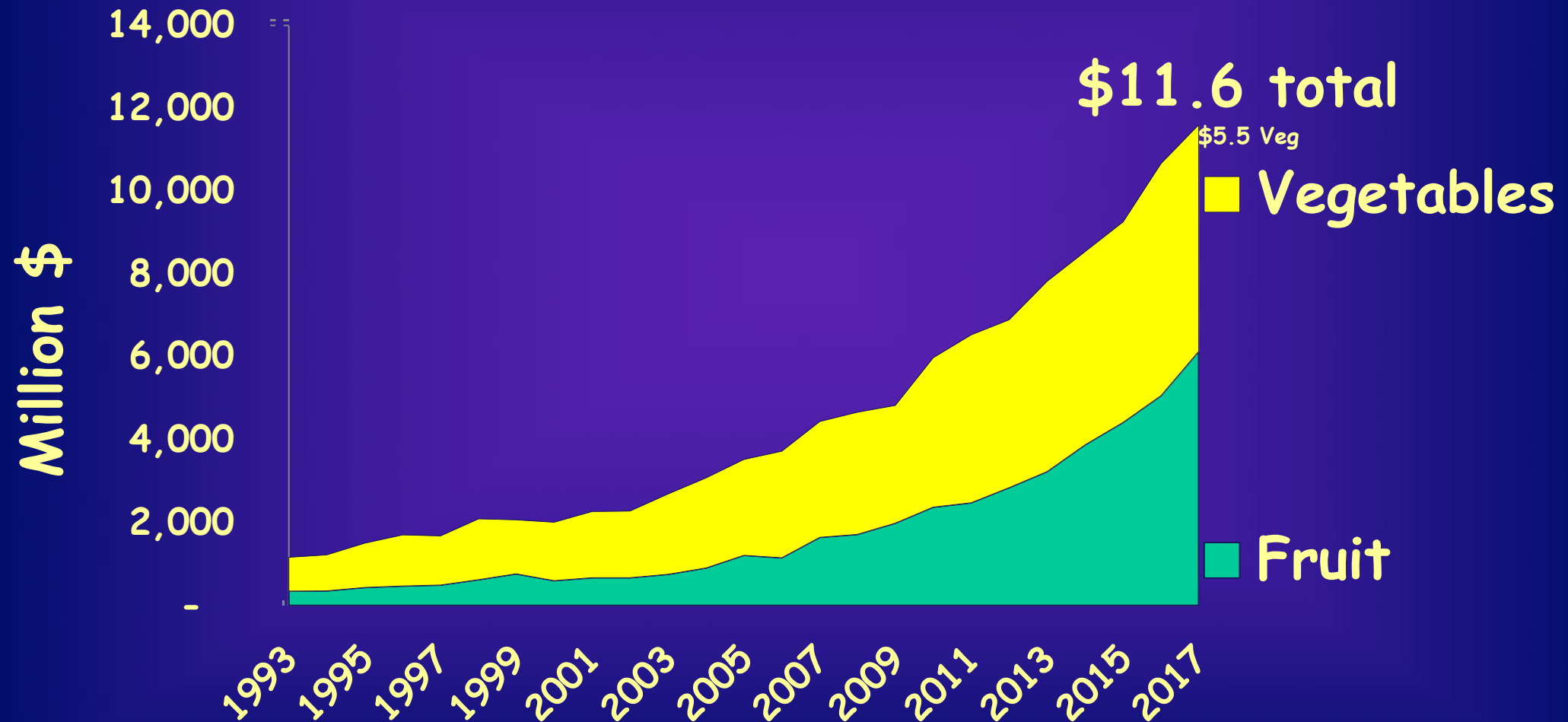
US Fresh Produce International Trade: Imports and Exports, by Key Category, Million US\$, 1994-2017

- Exports: Fresh Fruit
- Exports: Fresh Veg
- Imports: Bananas/plantains
- Imports: Other Fresh Fruit
- Imports: Fresh Veg



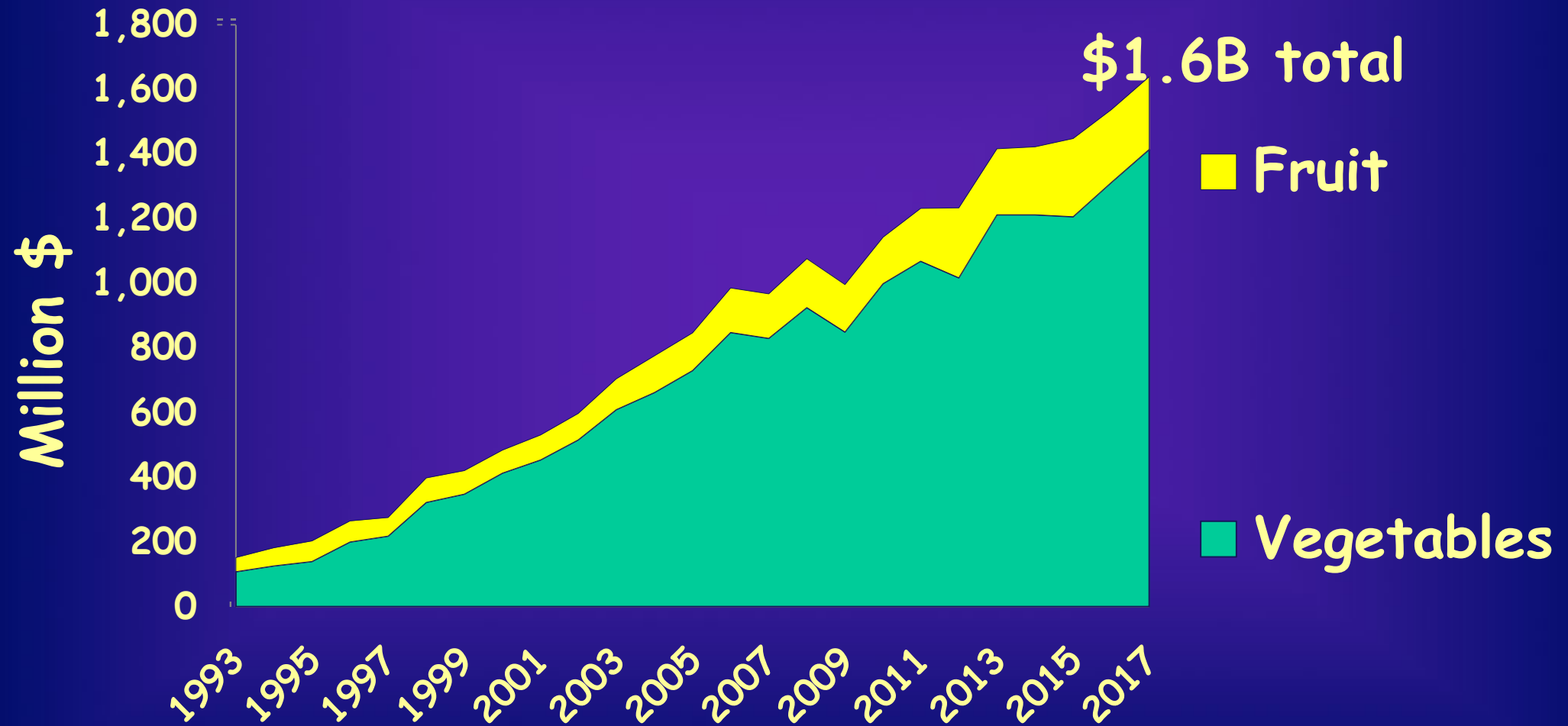
Source: US GATS online queries, BICO-10, February 2018.

US Imports of Fresh Fruit and Vegetables from Mexico, 1993-2017 (excludes canned, frozen, juice and dried)



Source: USDA/FAS GATS online query February 2018.

US Imports of Fresh Fruit and Vegetables from Canada, 1993-2017 (excludes canned, frozen, juice and dried)



Source: USDA/FAS GATS online query February 2018.

US Fresh Produce Imports

- Imports usually uncontentious because either they are:
- Contra-seasonal.
- US shippers often invested in offshore production and control the marketing to offer yr-round supply to buyers, MEET CONSUMER DEMAND.
- National check-off programs exist that assess domestic and foreign production (e.g. avocados, blueberries). Revenue promotes consumer demand.
- So, a high import share doesn't necessarily mean contentious trade; tomatoes the main exception.
- Fresh imports often higher priced than domestic.

Fresh fruit and vegetable imports as a share of US fresh utilization/consumption, 2016

Item	%
Vegetables, excl. melons and potatoes	31
Potatoes	10
Cucumbers	74
Sweet Peppers	60
Tomatoes	57
Fruit, all	53
Melons	38
Excluding Bananas	38
Blueberries	57

Snapshot of US Fresh Produce Trade, 2016

- N. American fresh veg trade mainly intra-NAFTA!
- Veg exports: 74% Canada, Mexico, 4%. Extra-NAFTA fresh veg exports fragmented.
- Veg imports: 69% Mexico, 16% from Canada.
- In contrast to veg, fresh fruit trade is diverse.
- Fruit exports: 36% Canada, 11% Mexico, 53% other.
- Fruit imports: 44% Mexico, 2% Canada, 54% other.
- Climate, agronomics and population size and location explain trade patterns, vs NAFTA.

Mexico's Role in US Fresh Produce Imports

- Tomatoes are Mexico's #1 fresh produce export=18% of produce exports; 35% of veg exports in 2016.
- Bell peppers, chile peppers, cucumbers, eggplant, green beans, asparagus, brussel sprouts, watermelon, limes, avocados, mangoes, grapes, papaya, green onions, berries, sugar snap peas, cilantro many tropical and specialty fruit/veg.
- NOT important in leafy greens, broccoli, cauliflower, celery, onions, potatoes, apples, pears, cherries, kiwi, peaches/nectarines/plums, oranges, tangerines, grapefruit, bananas.
- Climate/agronomic factors determinant. Examples...

Changing N. American Trade Landscape

Changing N. American Trade Landscape

- Rapid trade growth between all countries with which the US has FTAs, led by intra-NAFTA.
- Trade flows represent a combination of various factors of which FTAs are only one. Should exercise care in assigning causality. Examples...
- Exchange rates play a key role. The Trump anti-NAFTA agenda since 2016 has caused the Mexican peso to devalue rel. to US\$, making Mexican exports cheaper and more competitive.
- Most US fresh produce tariffs were very low prior to the implementation of NAFTA in 1994 and afforded little protection to US growers; tariff reductions played small role in import patterns; a few exceptions.

Changing N. American Trade Landscape

- Mexico had sizeable tariffs and even more importantly, quotas; US gained more market access.
- Sectors with comparative advantages won. For US, grains and oilseeds. For Mexico, fresh produce.
- NAFTA gave rules of the game, fomenting investment in Mexico. More important than tariffs.
- Integrating produce supply chains are also key.
- Technological progress in Mexico major contributor to higher productivity and competitiveness.
- Mexico has been a major beneficiary of growth in US consumer demand for fresh produce due to having the right climates. Demand is the major contributor to export growth!

Changing N. American Trade Landscape

- In many crops Mexico has permanent climatic advantages relative to the US/Canada (due to geography) that are unrelated to trade policy.
- For Mexico and Canada it is greatly advantageous to have duty free and overland access to the largest high income consumer market.
- Mexico is the principal export market for US apples, pears and important for many other fresh produce crops.
- Duties are taxes on consumers, without much benefit to growers as any protection afforded by duties imposed by the US would be eroded by further depreciation of peso or \$Canadian.

Changing N. American Trade Landscape

- Duties against Mexico would incentivize investment elsewhere as buyers would seek other sources of supply.
- However, for many products alternate supply sources aren't readily available and shipping distances limit options.
- Nor are alternate markets readily available. Most fresh produce trade is intra-NAFTA. Intense competition in global markets, and long distance shipping costs for extra-NAFTA trade constrain trade diversion - any major shifts in export markets for all 3 NAFTA countries.

Changing N. American Trade Landscape

- Mexico exports ~90% of fresh produce to US and Canada. Trade diversion of Mexican exports to other countries difficult. Avocados, table grapes, limes are examples of crops that may obtain more homes outside N. America.
- If the US erected barriers against Canada trade diversion would also be difficult. Currently, the majority of Canadian produce exports go to the US.
- In many cases, much production is grown specifically for export so broad consequences to protectionism.

Changing N. American Trade Landscape

- The US has climatic advantages in several crops with large exports to Mexico, such as, tree fruit, potatoes, and more. Mexico may seek protection.
- Consumers benefit by high quality, affordable products. Economies are most efficient when less competitive industries are not artificially protected. Protectionism leads to tit for tat retaliations which impede overall trade and losses outweigh any benefits accruing to a small group.
- Trade has winners and losers. Better for economic growth to compensate losers than protect less efficient industries. Consumers are prime beneficiaries of produce trade and healthier for it.

Fresh Tomato Market

Bottom line: Case of non-homogeneous products, substitution, cannibalization, new varieties, and technological change led by protected agriculture. NAFTA plays almost no role in explaining current trade patterns. Hence, tariffs would have small impact on current locations of production.

US Fresh Tomato Production, Consumption, Imports, and Exports, 1990-2015^P (includes hothouse, excludes canning and freezing)

million pounds

7000

6000

5000

4000

3000

2000

1000

0

Consumption

Production

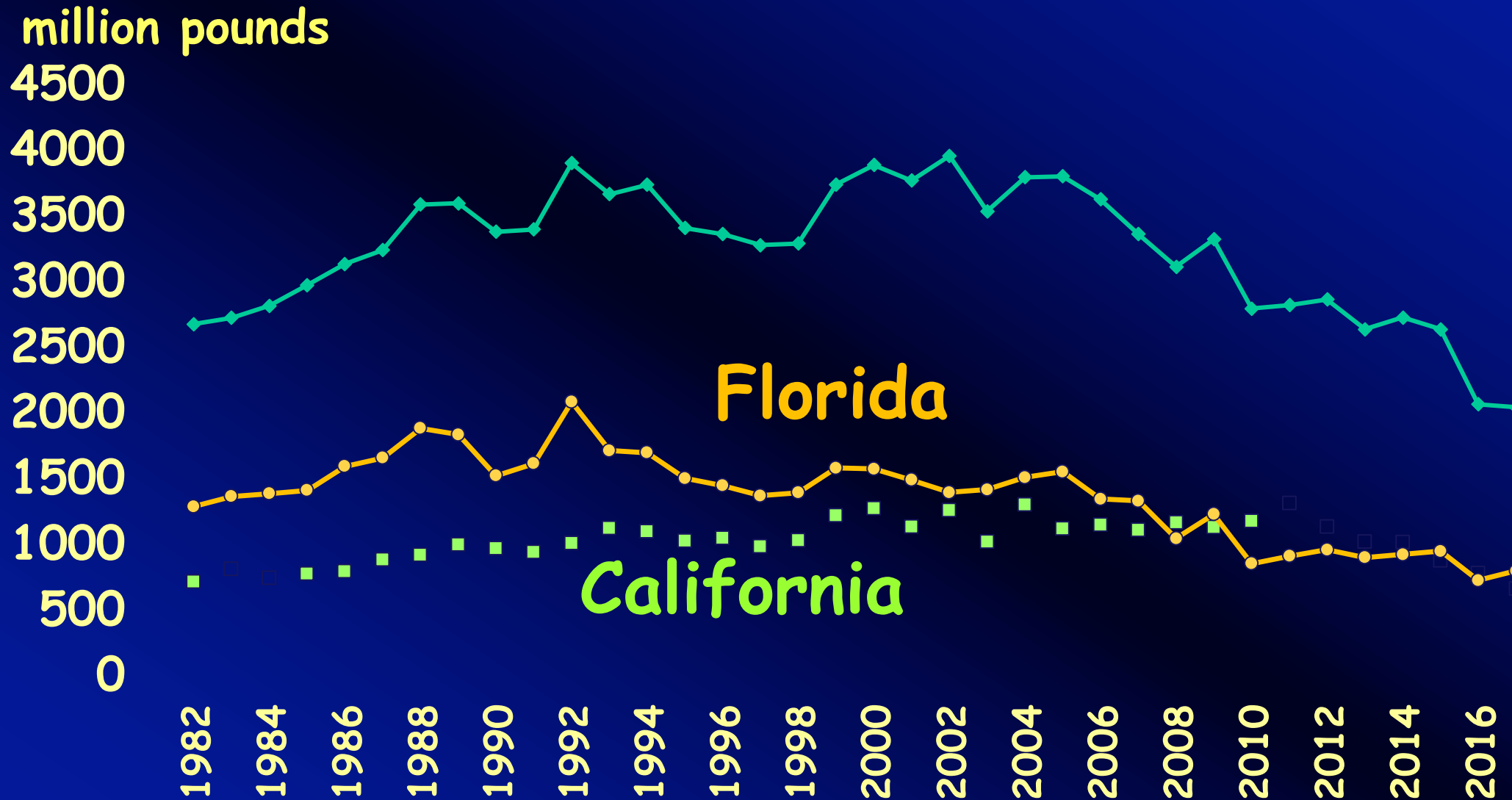
Imports

Exports

1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014

Source: USDA/ERS, Vegetables and Pulses Yearbook #89011, March 30, 2016.

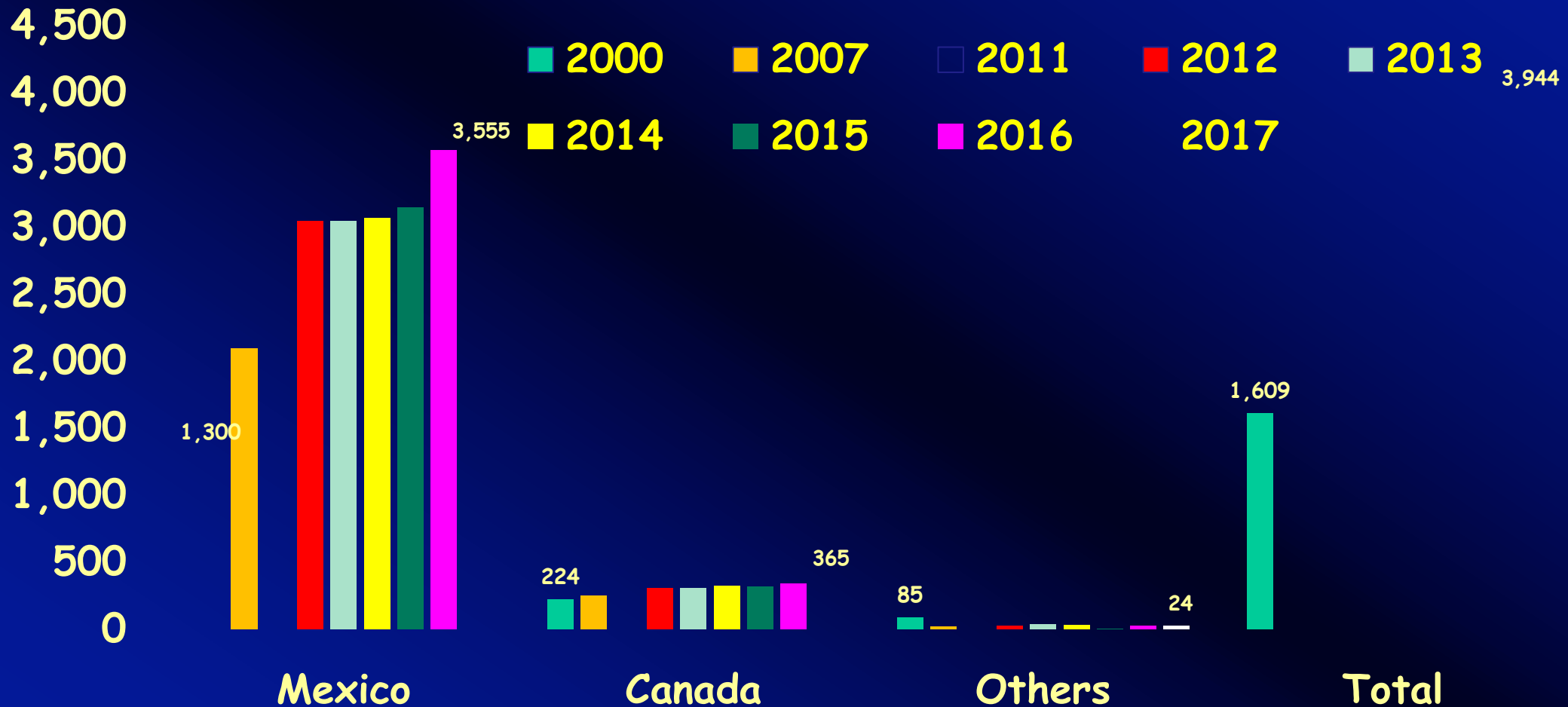
US Fresh (not for canning or freezing) Field Tomato Production, (excludes hothouse, tomatillo, cherry and grape) 1982-2017



Sources: various USDA/NASS Vegetable Annual Reports, including February 2018, and ERS Tomato Series through 2008 for US total.

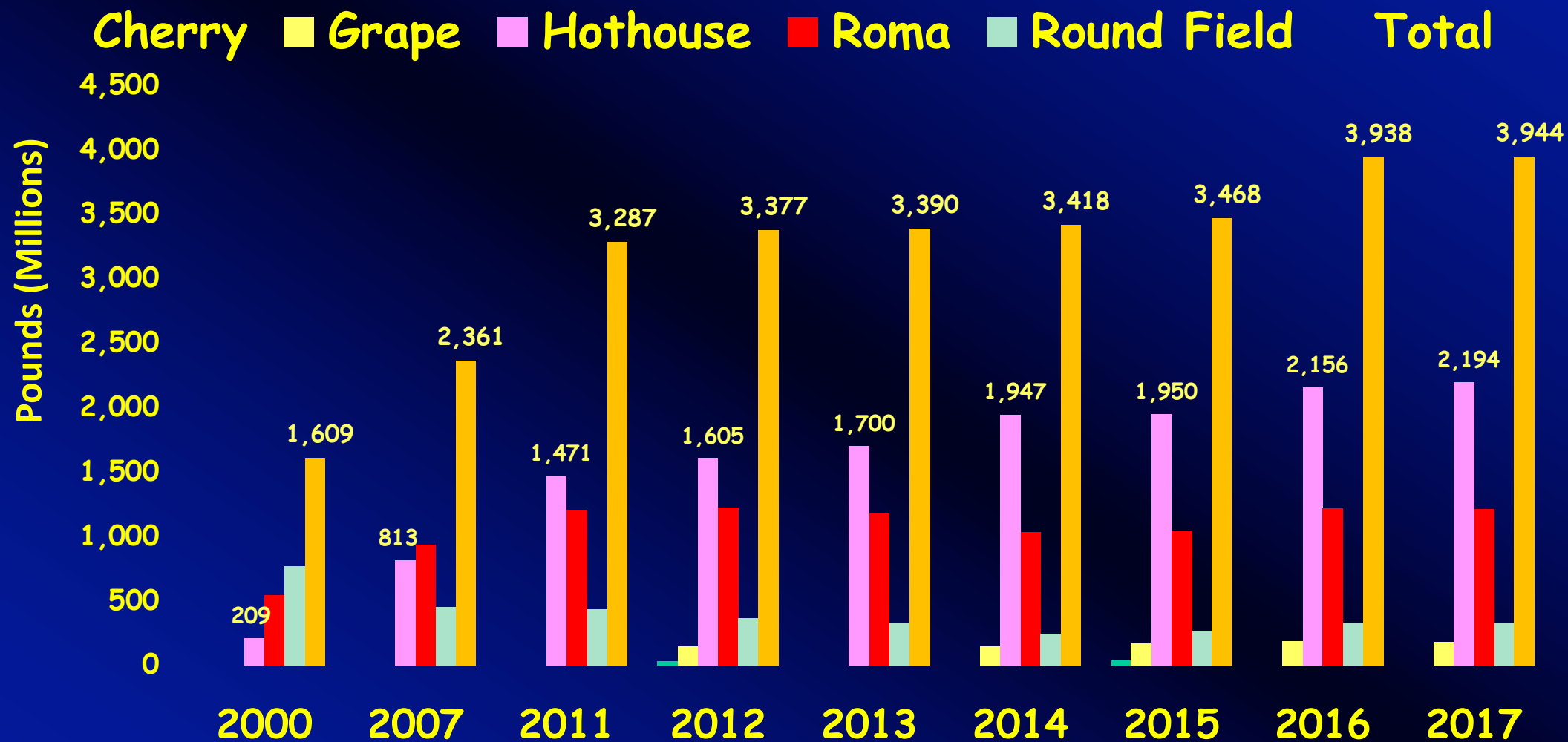
US Fresh Tomato Imports, All Types, by Key Country, 2000, 2007 & 2011-17 (million pounds)

Millions



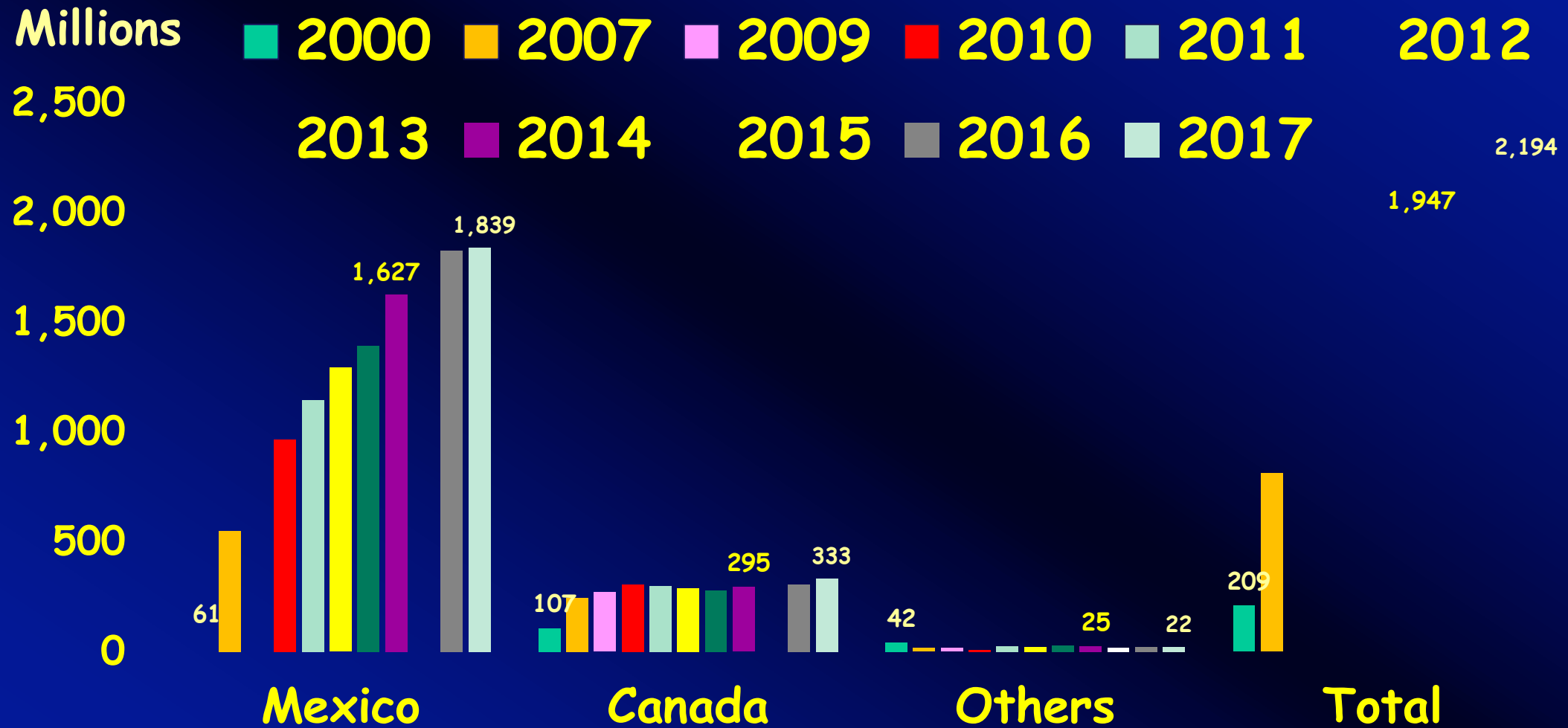
Source: US Department of Commerce, GATS online queries, FAS/USDA website.

Total US Fresh Tomato Imports, by Key Tomato Type, All Countries, 2000, 2007 & 2011-17 (millions of pounds)



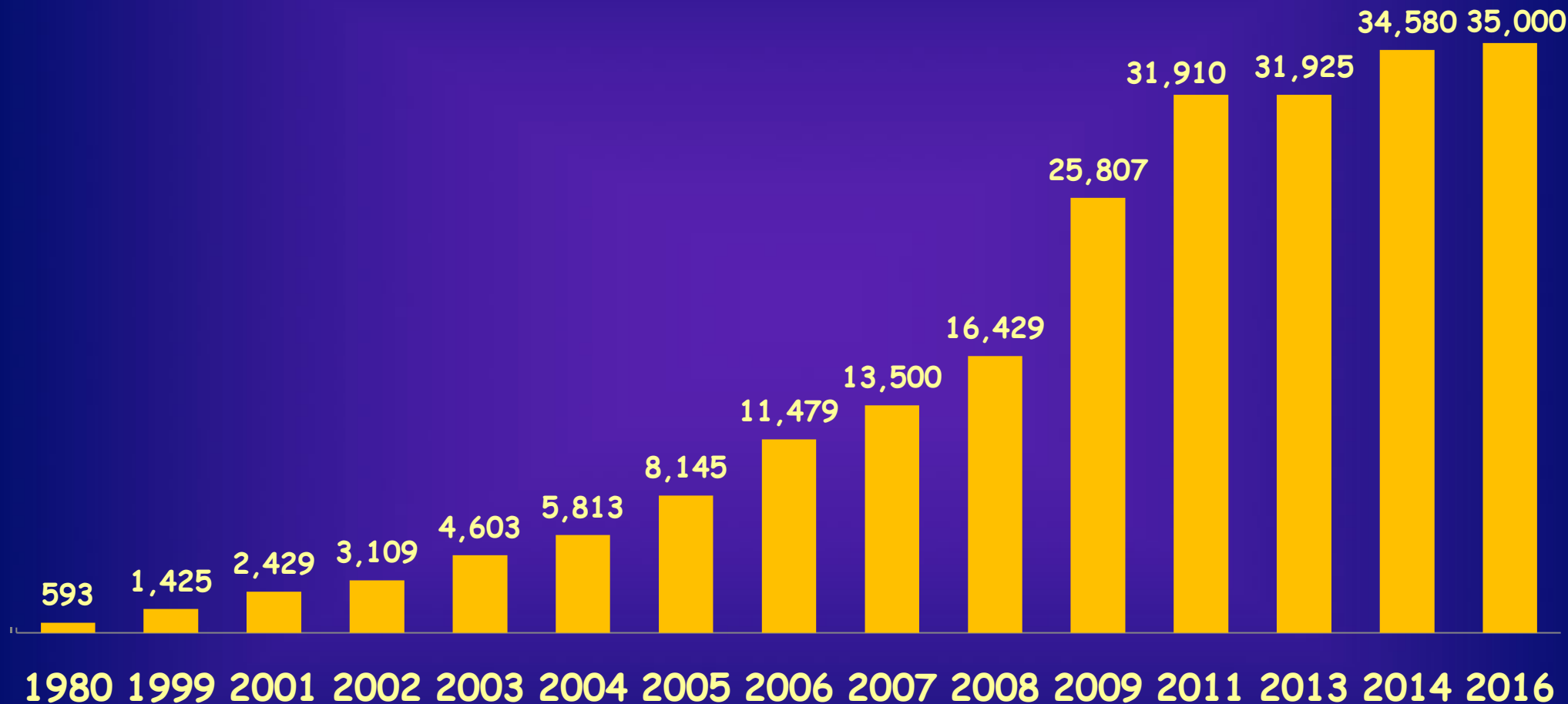
Source: US Department of Commerce, GATS online queries, FAS/USDA website.

US Fresh Hothouse Tomato Imports, by Key Country, 2000, 2007, 2009-17, (million pounds)



Source: US Department of Commerce, GATS online queries, FAS/USDA website.

Estimated Area of Protected Culture/Hothouse Tomatoes in Mexico, 1980-2016, Acres (excludes other PC commodities)

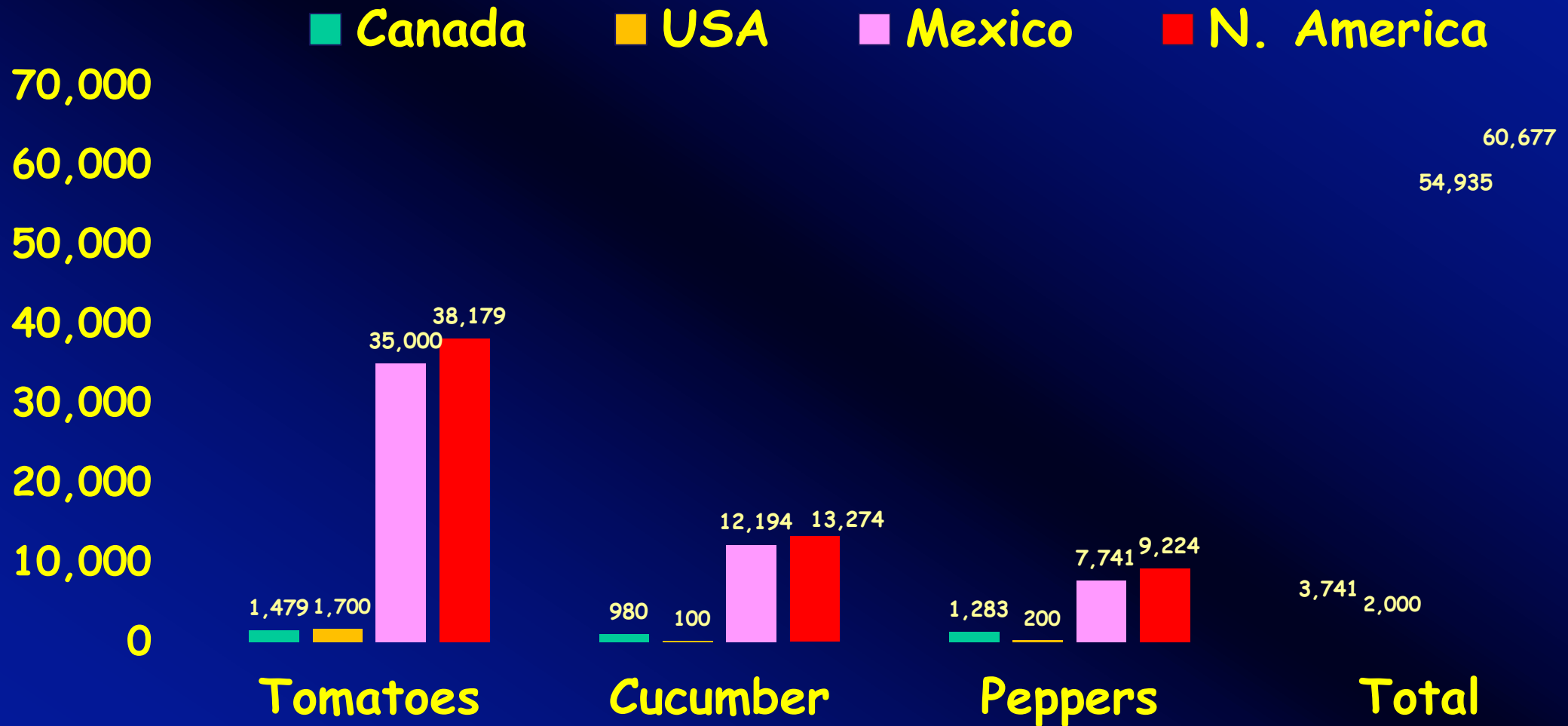


Sources: Evolucion de la Oferta Horticola en Mexico, 1989-2009, CAADES, Sept. 27, 2010 and various other sources, including: USDA/FAS GAIN Mexico Tomato Annual Reports, 6/8/14, and 6/1/16; and Cook's adjusted online queries from the SAGARPA website, SIAV for 2013 AND SIAPRO for 2011; and information from private sources. Note: The 6/21/17 USDA GAIN report estimates 37,500 acres for MY 2016/17.

A protected culture operation in Sinaloa, Mexico: A "warm climate" greenhouse



N. America: Estimated Area Harvested of Hothouse* Tomatoes, Bell Peppers and Cucumbers, 2016 (acres)



*In Mexico HH includes shade house with much lower yields than greenhouse.

Sources: Stat Canada for Canadian area; estimates from AMHPAC and others for Mexico, as researched by Roberta Cook; estimates from Cook for US based on industry research. Note: Tomato share of total HH=63%; cukes=22% share; peppers=15% share of total HH.



Mexican Fresh Tomato Industry Trends

- Total Mexican tomato area declining due to massive productivity growth using PC. Tomato area: 1990, 85,500 hectares; 2000, 75,800; MY 2016/17, 52-53,000. (USDA/FAS Mexico Tomato Annual GAIN Report, 6/21/2017 and earlier GAIN reports.)
- Sinaloa has always been the primary exporter of fresh tomatoes (open-field and PC) and leads in PC. According to AMHPAC, about 22% of PC area is in Sinaloa, 15% in Jalisco, 12% in Baja CA, 41% in the remainder of Mexico. High tech greenhouses in central Mexico are another game changer.
- For field growers, PC gives food safety advantages, reduced water and labor use/acre, and reduced chemical inputs due to improved disease control.

Hydroponic production (coconut substrate) of tomatoes in a greenhouse in Sinaloa, Mexico





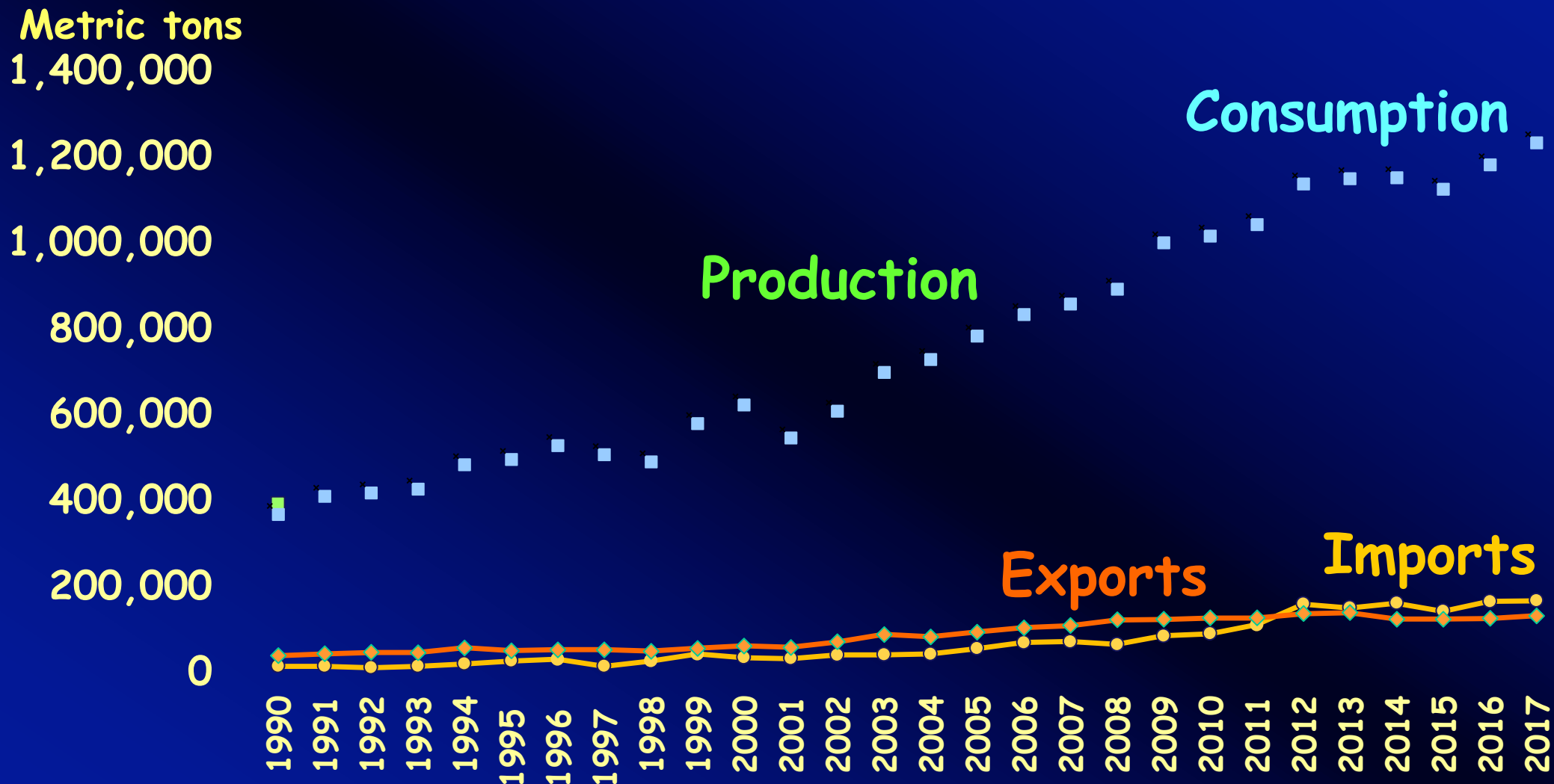
Potential Mexican Concerns

- Security.
- Institutional instability.
- Trade disputes.
- Partner risk.
- Intellectual property right risks.
- Corruption, legal structure, transaction costs.
- Investment coming from outside the sector which is not market driven.
- Water.
- Social issues.
- Labor.

Fresh Berry Sector

US Fresh Strawberry Production, Consumption (Disappearance), Imports, and Exports, 1990-2017¹ MT

(1.232 MMT consumption in 2017)



¹Preliminary

Source: 2017 Fruit and Tree Nuts Outlook Report, FTS-366, ERS/USDA, March 29, 2018. Includes retail and foodservice.

US Fresh Strawberry Imports From Mexico and Total, 2005-2017, (166,576 MT total in '17)

Metric tons

180,000

150,000

120,000

90,000

60,000

30,000

0

Despite the growth, in 2017, imports were equivalent to only 15% of US production. 99% of Mexican straw exports go to the USA but Mexico exports only 1/3 of what it produces.

Total

Mexico

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017

Source: USDA/ERS Fruit and Tree Nut Yearbook, October 2014 and GATS online queries for 2014-2017.

US Fresh Raspberry Imports by Key Country of Origin, 1990-2017, (88,109 total MT in '17)

Metric tons

100,000

80,000

60,000

40,000

20,000

0

1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016

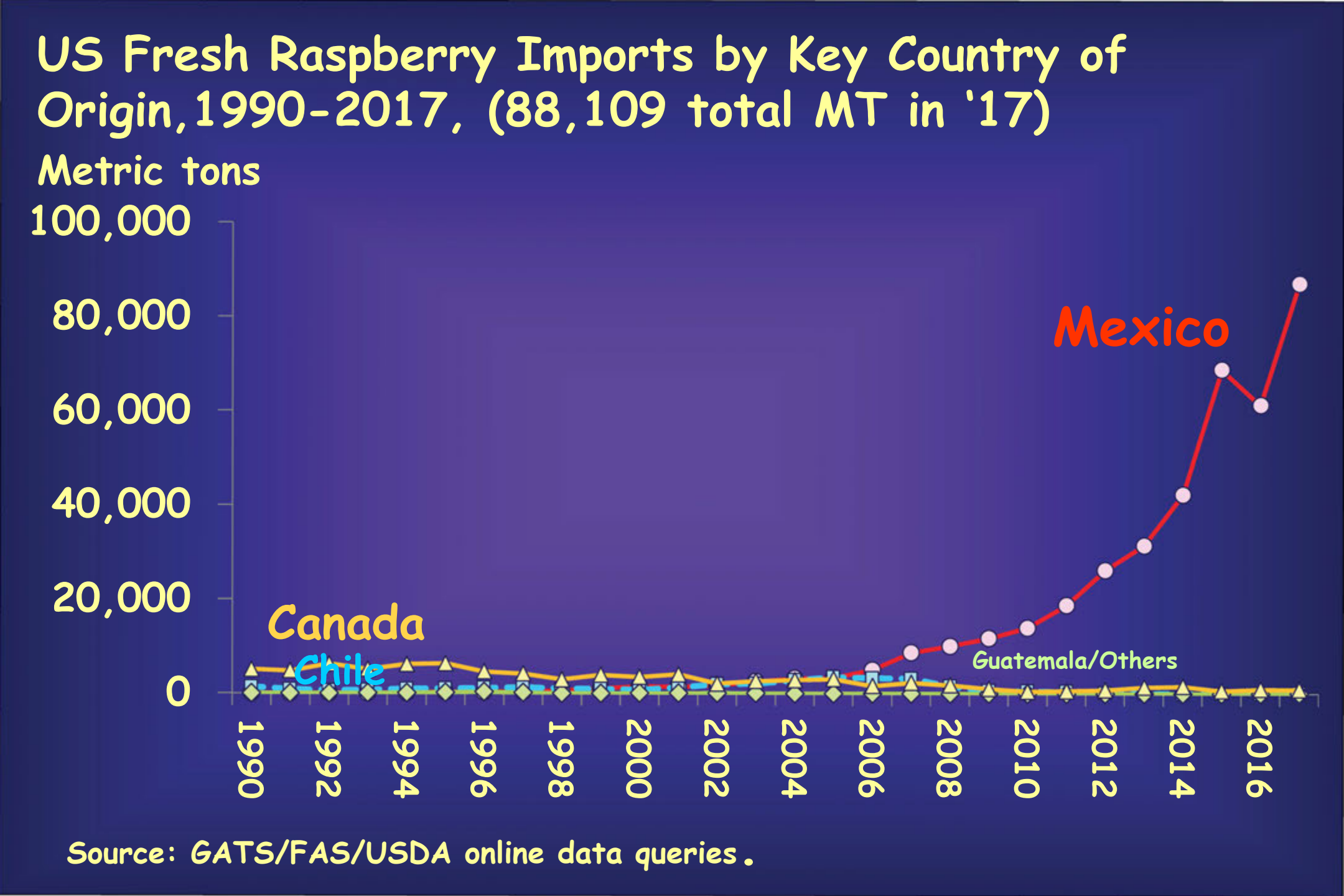
Canada

Chile

Mexico

Guatemala/Others

Source: GATS/FAS/USDA online data queries.



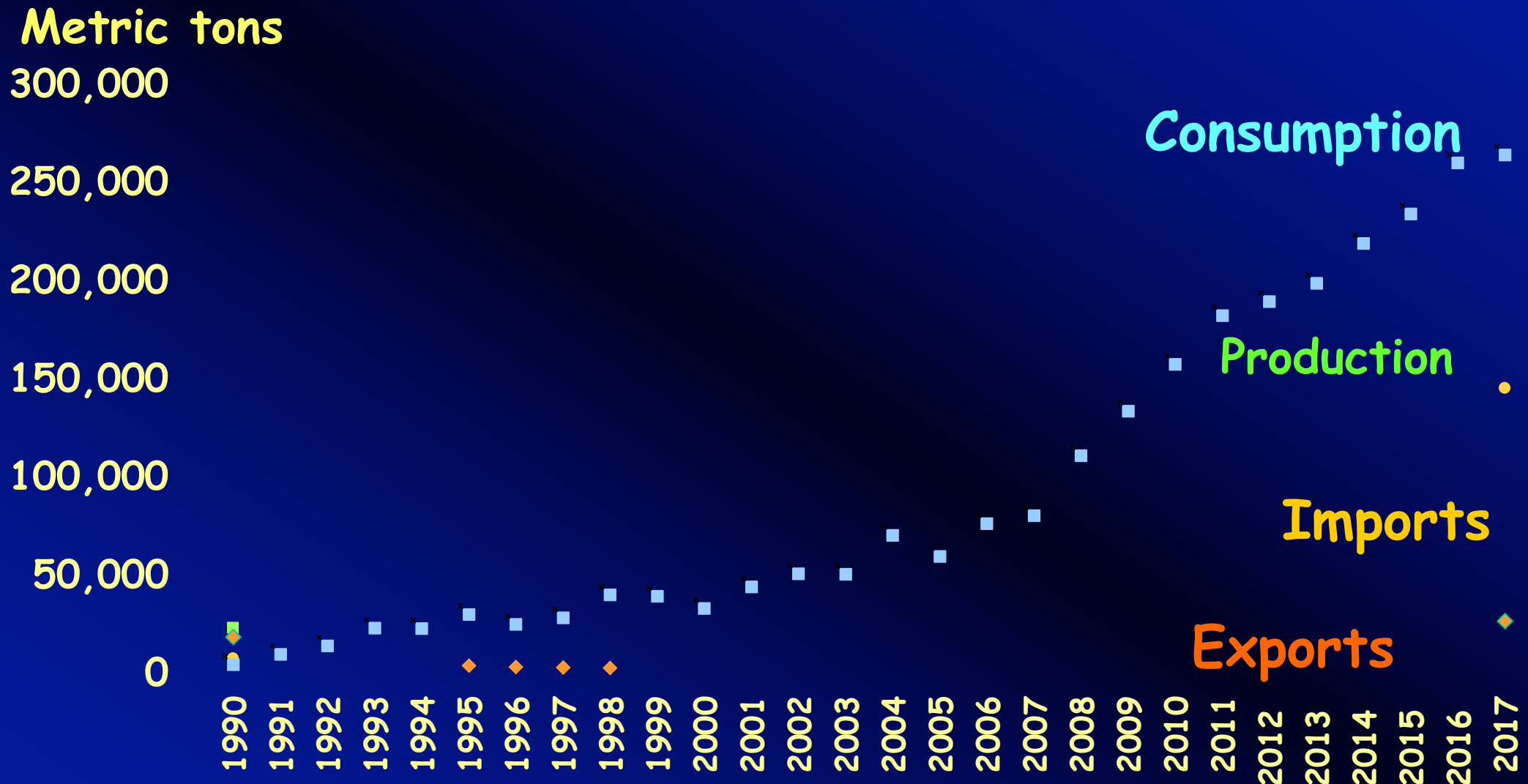
US Fresh Blackberry Imports by Source, 2006-2017, (70,089 MT in 2017)

Metric tons



Source: GATS/FAS/USDA online data query.

US Fresh Blueberry Production, Disappearance, Imports, and Exports, 1990-2017^P, MT (263,993 MT in 2017)



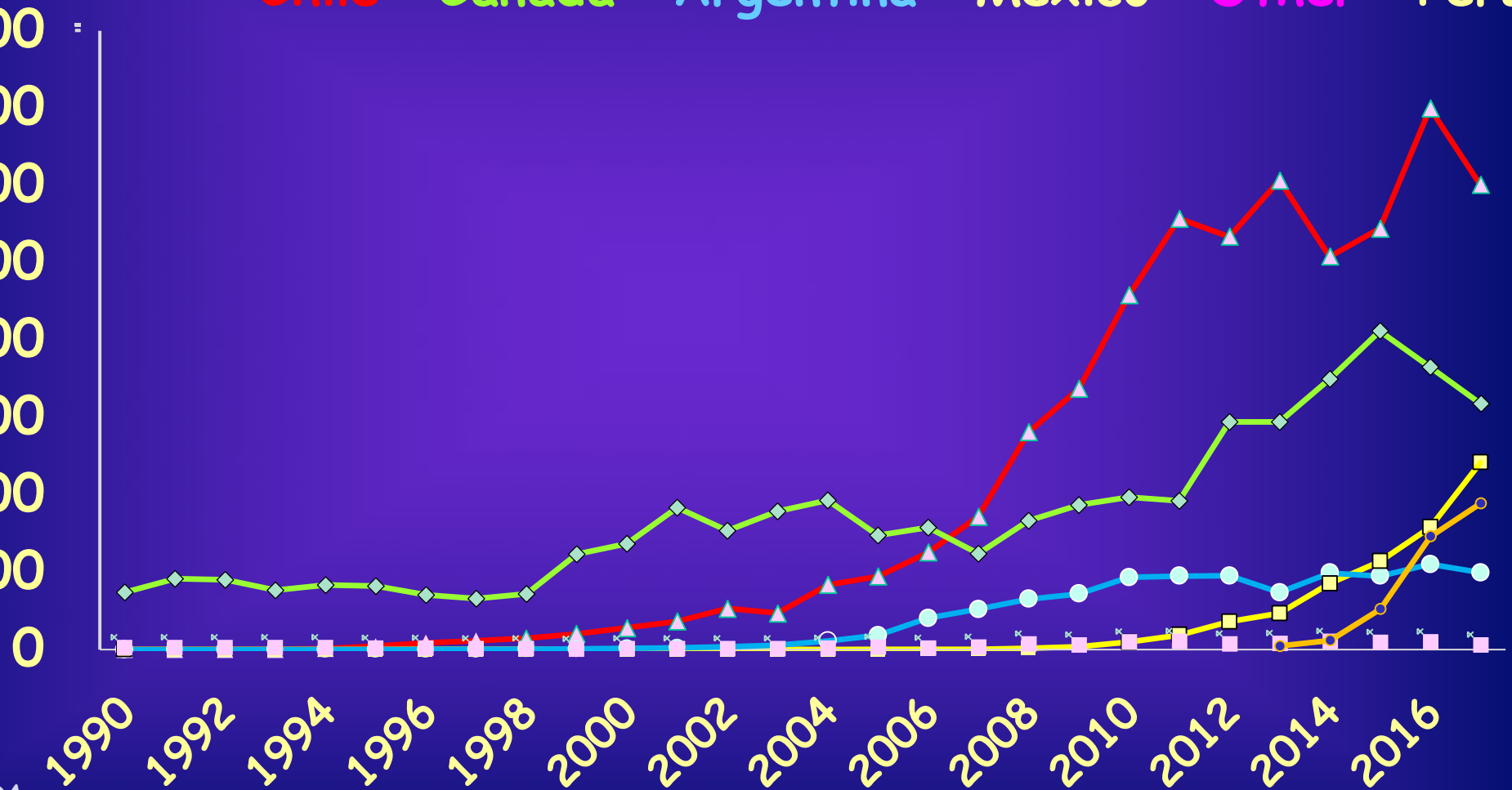
¹Preliminary

Source: 2017 Fruit and Tree Nuts Outlook Report, FTS-366, ERS/USDA, March 29, 2018. Includes retail and foodservice.

USA Fresh Blueberry Imports by Key Country of Origin, 1990-2017, (145,394 MT in 2017)

Metric Tons

—▲—Chile —◆—Canada —●—Argentina —■—Mexico —■—Other —○—Peru



Source:
GATS/FAS/USDA
online data
queries.







**Tabletop production of strawberries in
Mexico**

Conclusions

- The US has a large fresh produce industry, and excluding tropicals, produces most of what it consumes.
- For some crops (leafy greens), shifting production regions seasonally enables yr-rd supply within the US.
- Traditionally, the strong competitiveness of the US fresh produce industry is because even more than being labor-intensive, fruit/veg are knowledge, technology, capital, and marketing-intensive. US advantages include much lower capital costs, infrastructure, R&D, legal system transportation.
- Location advantage! US producers are located in one of the most lucrative consumer markets in the world, and face no trade barriers.
- But growth in protected culture and other advantages in Mexico is closing the technological gap in some crops.

Conclusions

- Trade diversion would be difficult for all NAFTA produce players if significant tariffs introduced.
- Benefits to US growers of across-the-board tariffs against Mexico would be eroded by depreciation of peso. Lose-lose for growers and consumers.
- Product-specific duties will cause each side to negotiate tariffs on their import-sensitive crops, transferring the burden from some grower groups to others.
- Each product has it's own story to tell; cannot generalize.

Conclusions

- US consumption growth often due to imports making produce available yr-round or expansion in S & D of tropicals not grown in the US.
- Locations of production, seasonally, by crop, within each NAFTA country, unlikely to change since climate/agronomics and location and buying power of consumers are the primary contributors.
- Mexico will continue to dominate crops like tomatoes, cukes, bell peppers and US will dominate those in which it has advantages.
- Mexico's role in berries will grow given natural advantages, technology, labor and US investment.