

# **Southern Crops Outlook for 2014: U.S. Fruits and Vegetable outlook**



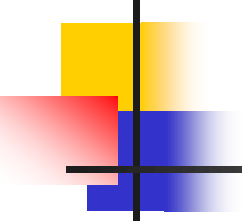
111<sup>th</sup> Southern Agricultural Economics Association Conference  
Sheraton Dallas Hotel, Texas, February 1-4, 2014

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**Tifton, Georgia, USA.**



# Overview

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- US Vegetable Situation and Outlook
  - U.S. Fruits and Nuts Situation and Outlook
  - Global Issues and Chinese Competitiveness
  - Conclusion and Remarks



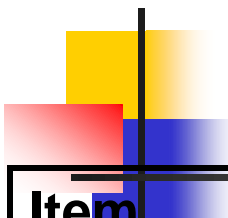
**Landon Donovan, USA**



**Eto'o Samuel, Cameroon**



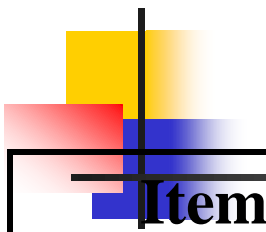
# U.S. Vegetable Industry at a Glance, 2004-2012.



Item	Unit	2004	2005	2006	2007	2008	2009	2010	2011	2012
Area Harv't	Th. Ac	6,581	7,128	7,264	6,852	6,648	6,617	6,952	5,656	6,662
Produc	Mil. cwt	1,355	1,281	1,308	1,332	1,278	1,261	1,200	1,186	1,273
Crop Value	\$ mil.	15.5	15.9	17.2	17.4	18.6	18.2	18.1	18.0	18.3
Per Capita Use	Lbs	448	441	434	435	419	392	397	383	401

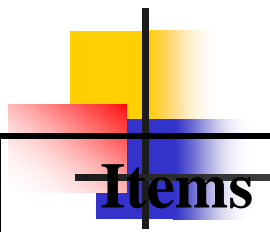
Source: Vegetable and Melons Outlook/VGS-327/June26, 2008, ERS, USDA

# U.S. Vegetable Export Trade at a Glance, 2004-2012



Items	Unit	2007	2008	2009	2010	2011	2012
<b>Total Export Trade</b>	<b>\$ mil.</b>	<b>4,621</b>	<b>5,418</b>	<b>5,172</b>	<b>5,629</b>	<b>6,073</b>	<b>6,233</b>
<b>Fresh Veg (excl melons)</b>	<b>\$ mil.</b>	<b>1,741</b>	<b>1,846</b>	<b>1,682</b>	<b>1,900</b>	<b>1,960</b>	<b>1,701</b>
<b>Processing</b>	<b>\$ mil.</b>	<b>942</b>	<b>1,196</b>	<b>1,178</b>	<b>1,240</b>	<b>1,396</b>	<b>1,483</b>
<b>Potatoes &amp; products</b>	<b>\$ mil.</b>	<b>1,051</b>	<b>1,196</b>	<b>1,179</b>	<b>1,255</b>	<b>1,512</b>	<b>1,695</b>
<b>Dry beans</b>	<b>\$ mil.</b>	<b>199</b>	<b>317</b>	<b>306</b>	<b>305</b>	<b>285</b>	<b>433</b>
<b>Others</b>	<b>\$ mil.</b>	<b>686</b>	<b>841</b>	<b>827</b>	<b>929</b>	<b>919</b>	<b>921</b>

# U.S. Vegetable Import Trade at a Glance, 2004-2012



Items	Unit	2007	2008	2009	2010	2011	2012
Total import trade	\$ mil.	7,926	8,401	7,969	9,200	10,388	10,314
Veggies (excl melons)	\$ mil.	4,433	4,604	4,061	5,078	5,570	5,091
Processing	\$ mil.	1,921	2,170	2,149	2,311	2,693	2,802
Potatoes & products	\$ mil.	908	997	1,012	997	1,124	1,198
Dry beans	\$ mil.	107	155	134	140	165	154
Others /1	\$ mil.	556	588	613	674	835	1,069

Source: Vegetable and Melons Outlook/VGS-327/June26, 2008, ERS, USDA, pg. 3



# Changes affecting the U.S. Fruits and Vegetable Industry

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- 2012, USDA/ERS Vegetable & Melon outlook was changed to Vegetables and Pulses Outlook thus melon is no longer classified as vegetable
- In 2011 & 2012 California cantaloupe growers who faced backlash from outbreak that occurred in other states voted to add food safety requirements to an existing state marketing order.
- The market order is mandatory for all operations in the defined regions.



# Changes affecting the U.S. Fruits and Vegetable Industry

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- Jan. 2011 = The Food Safety Modernization Act (FSMA) was signed into law by President Obama.
- The U.S. food and Drug Administration (FDA) was required to develop mandatory microbial food safety practices for produce growers.
- Jan. 16, 2013: FDA published the proposed rule regulating produce – *Standards for Growing, Harvesting, Packing, and Holding of Produce for Human Consumption*, also called “the produce rule” (Federal Register, 2013a).





# Changes affecting the U.S. Fruits and Vegetable Industry

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- In 2013, shipment of selected fresh vegetables decreased by 14% compared to 2012.
- The decrease in volume caused prices to escalate
- Consequently, the consumer price index for all fresh vegetable increased by 6.3%

# Changes affecting the U.S. Fruits and Vegetable Industry

- March 4, 2013, the US Dept. of Commerce suspended the antidumping investigation against fresh tomatoes from Mexico.
- This investigation started April 26, 1996.
- After the dumping charges, the US Dept. of Commerce started negotiating a suspension agreement with Mexican producers and shippers.
- Renegotiations of the suspension occurred in 2002, 2008 and 2013.

# Changes affecting the U.S. Fruits and Vegetable Industry

- After the suspension, the new agreement imposed minimum prices (reference prices) for all fresh and chilled tomato coming from Mexico.
- Producers and exporters are/must *sell* their produce at or above the *reference price* so as to “eliminate the injurious effect of export of tomato to the U.S.”
- This includes cherry, round, plum, green house, roma and fresh tomatoes used for fresh salsa and salad bar.

# Changes affecting the U.S. Fruits and Vegetable Industry

- Jan. 29, 2014: The House passed the \$956 billion Farm Bill with a vote of 251 to 166.
- Jan. 31, 2014: The Senate was suppose to vote on it.
- This bill has many aspect which will affect the fruits and vegetable industry, i.e.
- Section 3102: Market Access Program  
*(\$200 million annually through 2018)*
- Section 3103: Foreign Market Development program  
*(\$34.5 million annually through 2018).*
- Section 3205: Technical Assistance for Specialty Crops  
*(\$9 million annually from 2011-2018).*

# Changes affecting the U.S. Fruits and Vegetable Industry

- **Section 4201: Specialty Crop Purchases**  
*(reauthorized through 2018 at current funding level)*
- **Section 4214: Fresh Fruit and Vegetable Snack Program**  
*(\$150 million annually with an amendment)*
- **Section 7306: Specialty Crops Research Initiative**  
*(Reauthorized with mandatory funding of \$80 million for FY 2014).*
- **Section 7306 (i): Emergency Citrus Disease Research and Extension Program etc.**  
*(\$25 million set aside for the eradication of Huanglongbing (HLB) or Citrus greening disease, FY 2014- 2018). Another \$25 million approved for appropriations of this program through 2018)*



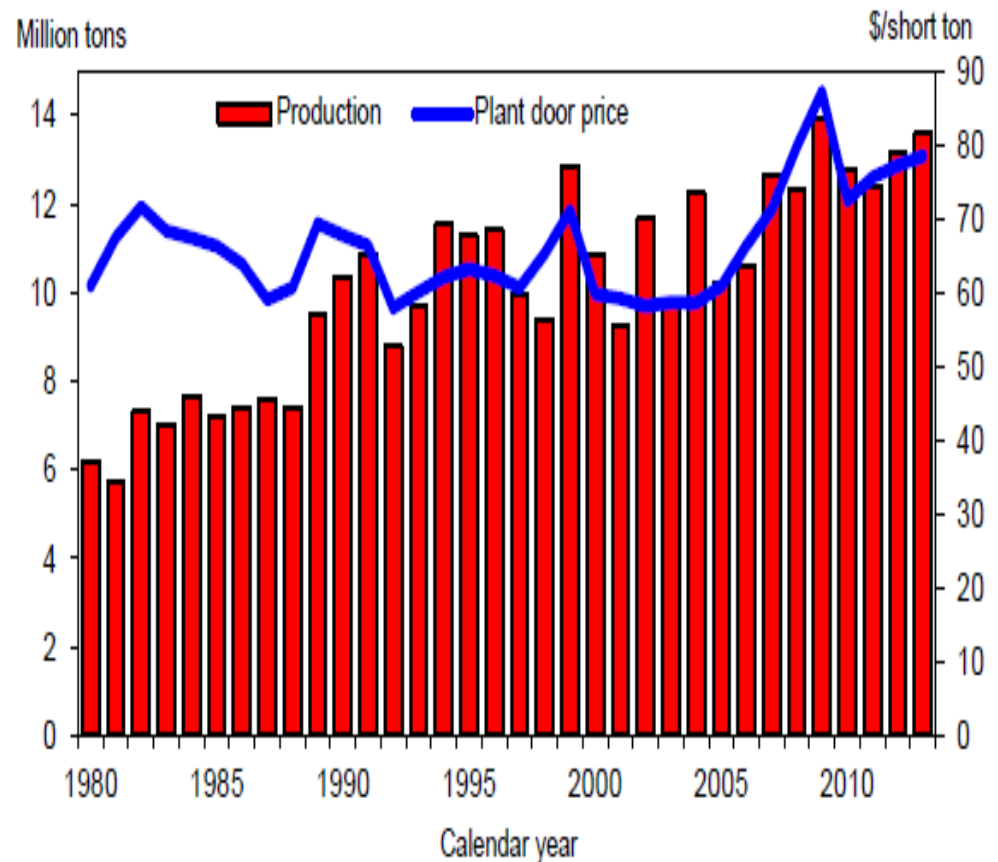
# Changes affecting the U.S. Fruits and Vegetable Industry-2

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- Labor shortages and immigration issues
- Appreciation and depreciation of US dollars
- General world economic slump
- Chinese competitiveness and dominance in world agriculture and other areas
- Changes in world population, economic growth, and income are most likely to alter global food demand –  
*e.g. China's new relaxed one child policy.*

# U.S. Processing Tomatoes: Production and Delivered (plant-door) price, 1980-2013

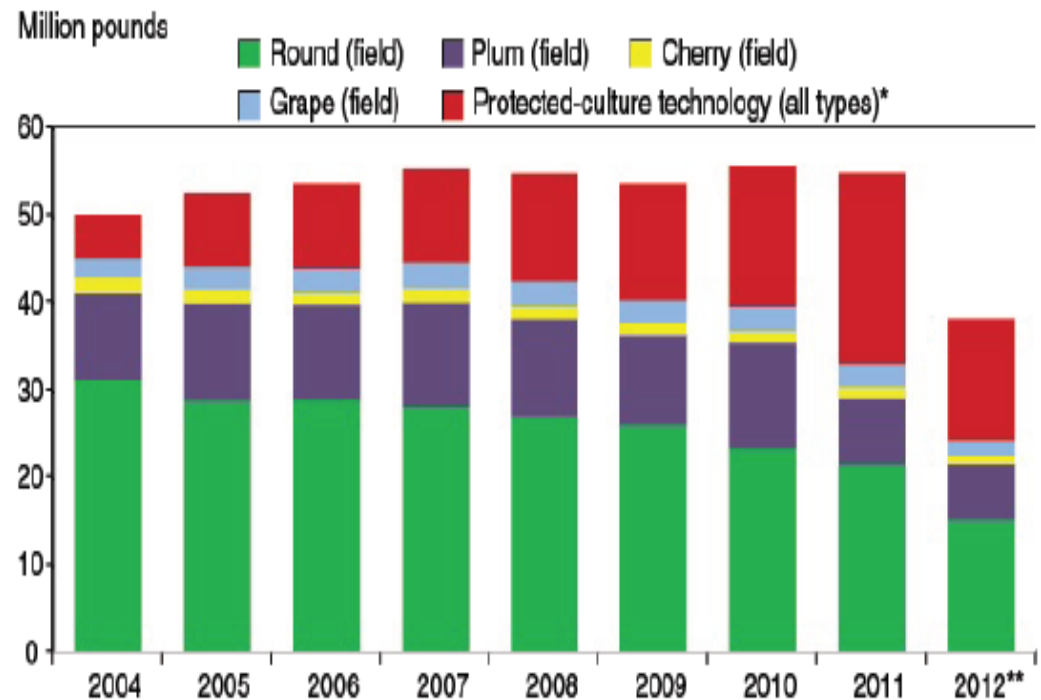
- In 2013, the California tomato processors planned to contract:
- 13 million short tons
- ~261,000 acres.
- ~2.8% increase from 2012.
- Enjoyed a record yield of 49.8 tons/acre or 109.6 tons/Ha
- ~2.5% increase from 2012



Source: USDA, NASS, Vegetable Annual Summary, except 2013's estimate, which is a projection from USAD/ERS, March 2013

# Changes in U.S. Share of Field-grown vs. Protected-culture Tomato Production, 2004 - 2012

- Protected-culture started in North America in late 1990s.
- The major players in the US market are Mexico = 62%, Canada and the US (NAFTA countries).
- Canada is not big in field tomato but protected production
- Florida is big in field but not protected-culture
- In 2011, 40% of US supplies was protected-culture compared to <10% in 2004.



\* Includes beefsteak, tomatoes-on-the-vine (TOV), cherry, grape, and plum.

\*\* 2012 data cover January through September only.

Source: USDA, Economic Research Service using data from USDA, Agricultural Marketing Service.





# Yields of Selected Vegetables in Selected Countries

Yield/tons/ha	Ghana <sup>2</sup>	China <sup>2</sup>	Nigeria	USA
Chilies & green pepper	3.58	21.88	3.8 <sup>3</sup>	28.47
Eggplants	3.75	17.38	0.8 <sup>4</sup>	34.09
Tomatoes	5.29	23.25	25 <sup>1</sup>	77.35
Processed Tomatoes	n/a	n/a	n/a	109.6

1. <http://www.businessdayonline.com/NG/index.php/news/76-hot-topic/37563-firm-invests-n5bn-in-vegetable-production> – Vegefresh Nigeria Limited (2012)

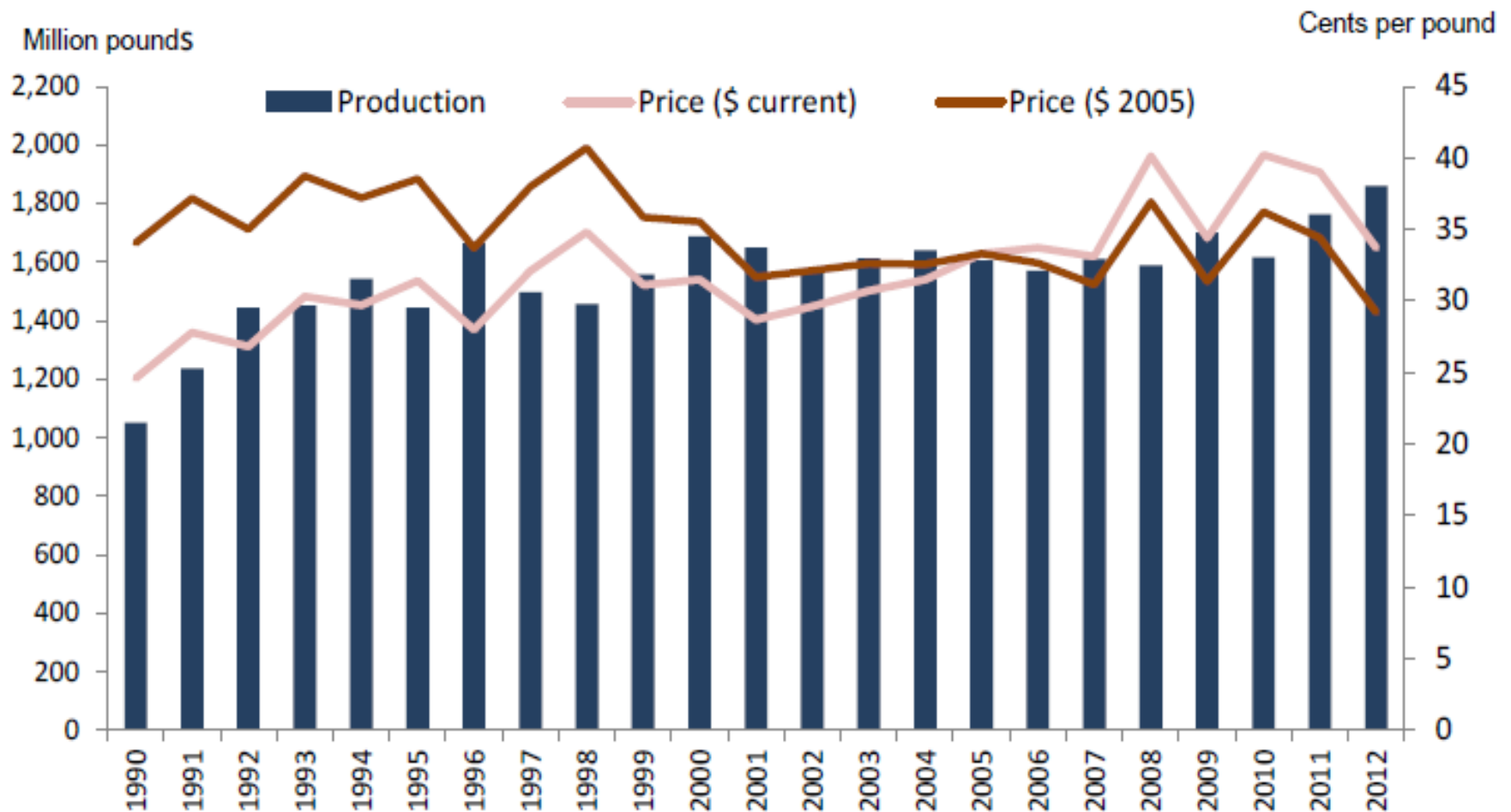
2. FAO (2007)

3. <http://scihub.org/ABJNA/PDF/2010/4/1-4-495-500.pdf>

4. [http://www.google.com/search?sourceid=navclient&ie=UTF-](http://www.google.com/search?sourceid=navclient&ie=UTF-8&rlz=1T4SKPT_enUS411US412&q=vegetable+eggplants+and+yields+in+nigeria#q=vegetable+eggplants+and+yields+in+nigeria&hl=en&rlz=1T4SKPT_enUS411US412&e)

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# U.S. Bell Pepper: Production and Season-Average Grower Price, 1990-2012



1/ fresh and processing use

Source: USDA, National Agricultural Statistics Service.

# Protected-culture Technologies for Pepper

<b>Years</b>	<b>Greenhouse Operators</b>
1998	165
2007	265
<b>Yields</b>	<b>2007</b>
Green House	64,500 lbs./Ac
Field Grown	31,340 lbs./Ac
<b>Production</b>	<b>2007</b>
Green House	1.8 m lbs.
Hydroponics	3.5%

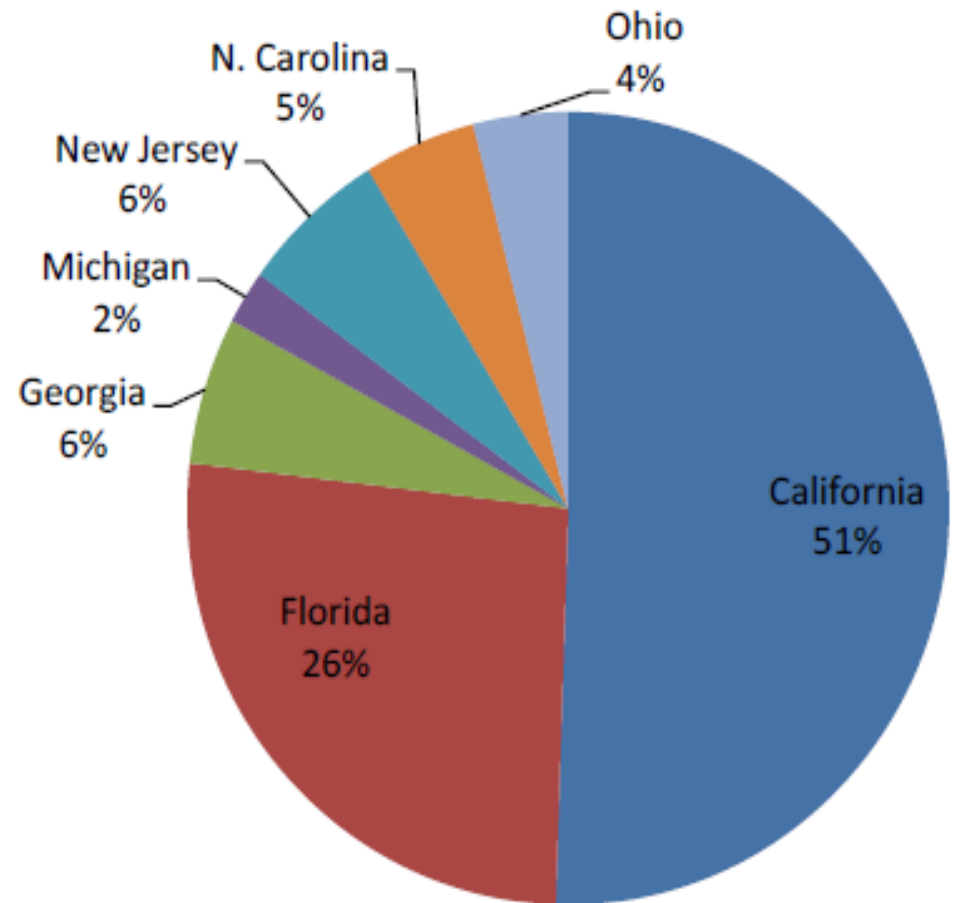


Source:

[https://www.google.com/images?rlz=1T4SKPT\\_enUS411US412&q=greenhouse+pepper+production&hl=en&sa=X&oi=image\\_result\\_gro up&ei=dgWeUpnCF4XqkQeixoDgCA&ved=0CDwQsAQ](https://www.google.com/images?rlz=1T4SKPT_enUS411US412&q=greenhouse+pepper+production&hl=en&sa=X&oi=image_result_gro up&ei=dgWeUpnCF4XqkQeixoDgCA&ved=0CDwQsAQ)

# Share of Bell Pepper in Top 7 states (fresh & processing), 2007- 2011

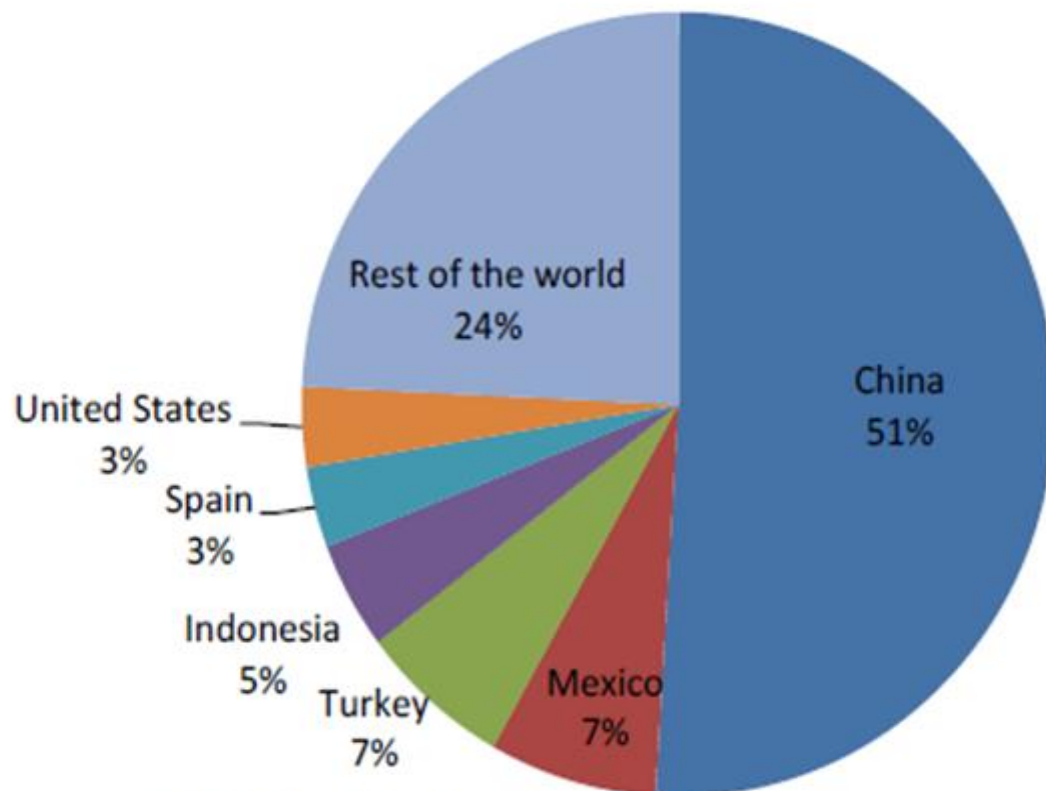
Years	Per Capita Use
1960s	2.0 lbs.
1970s	2.5 lbs.
1980s	4.0 lbs.
1990s	7.0 lbs.
2012	11.0 lbs.
	Field Grown
2012	1.9 billion lbs.
	55,500 acres



\*Average share of U.S. production, 2007-11  
Source: USDA, National Agricultural Statistics Service, *Vegetables Summary*.

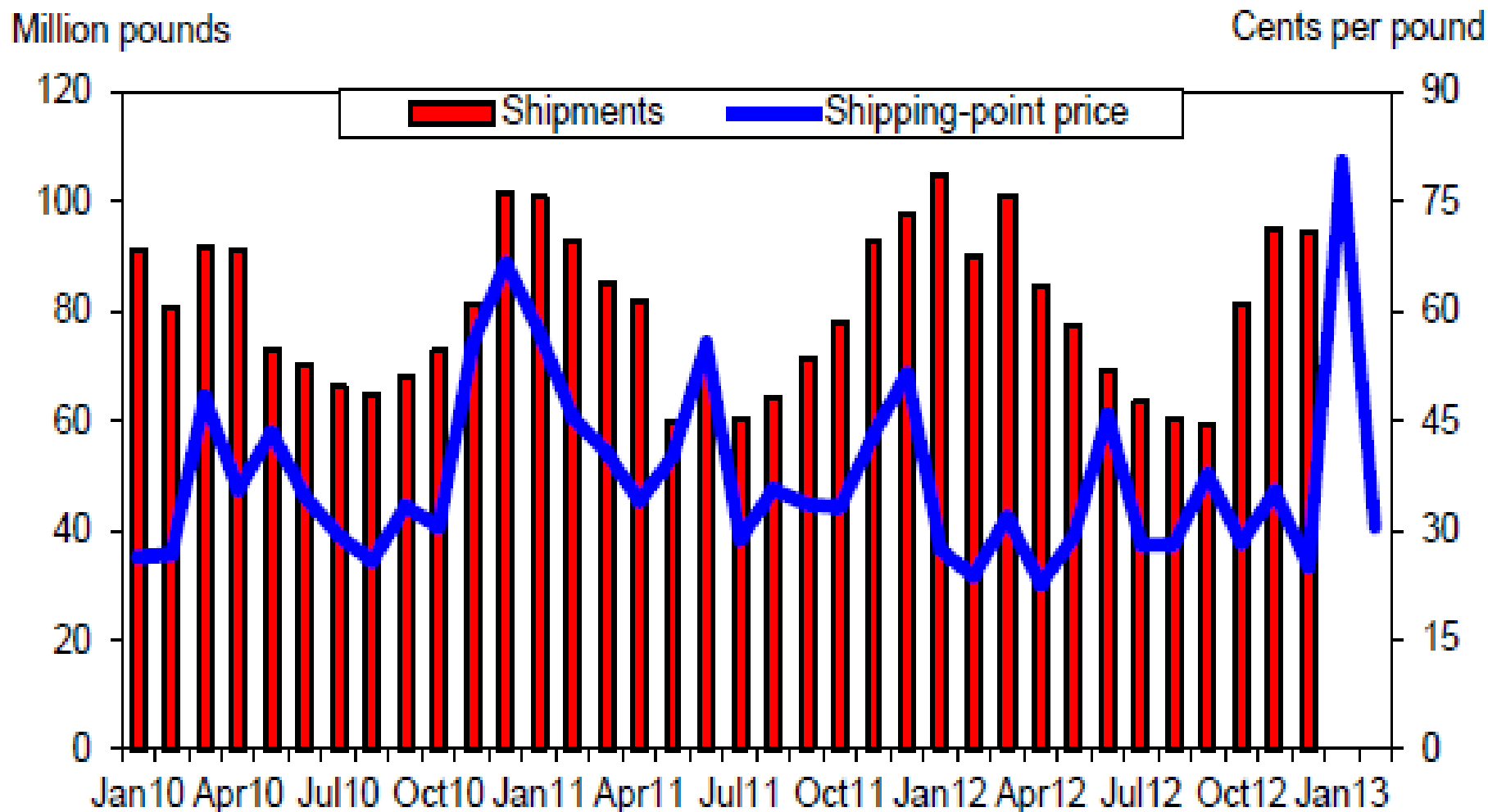
# Top 7 World Producers of Green Chiles and Peppers, 2007-2011

Ranking	Countries
1 <sup>st</sup>	China = 51%
2 <sup>nd</sup>	Mexico = 7%
2/3 <sup>rd</sup>	Turkey = 7%
4 <sup>th</sup>	Indonesia = 5%
5 <sup>th</sup>	Spain = 3%
6 <sup>th</sup>	USA = 3%



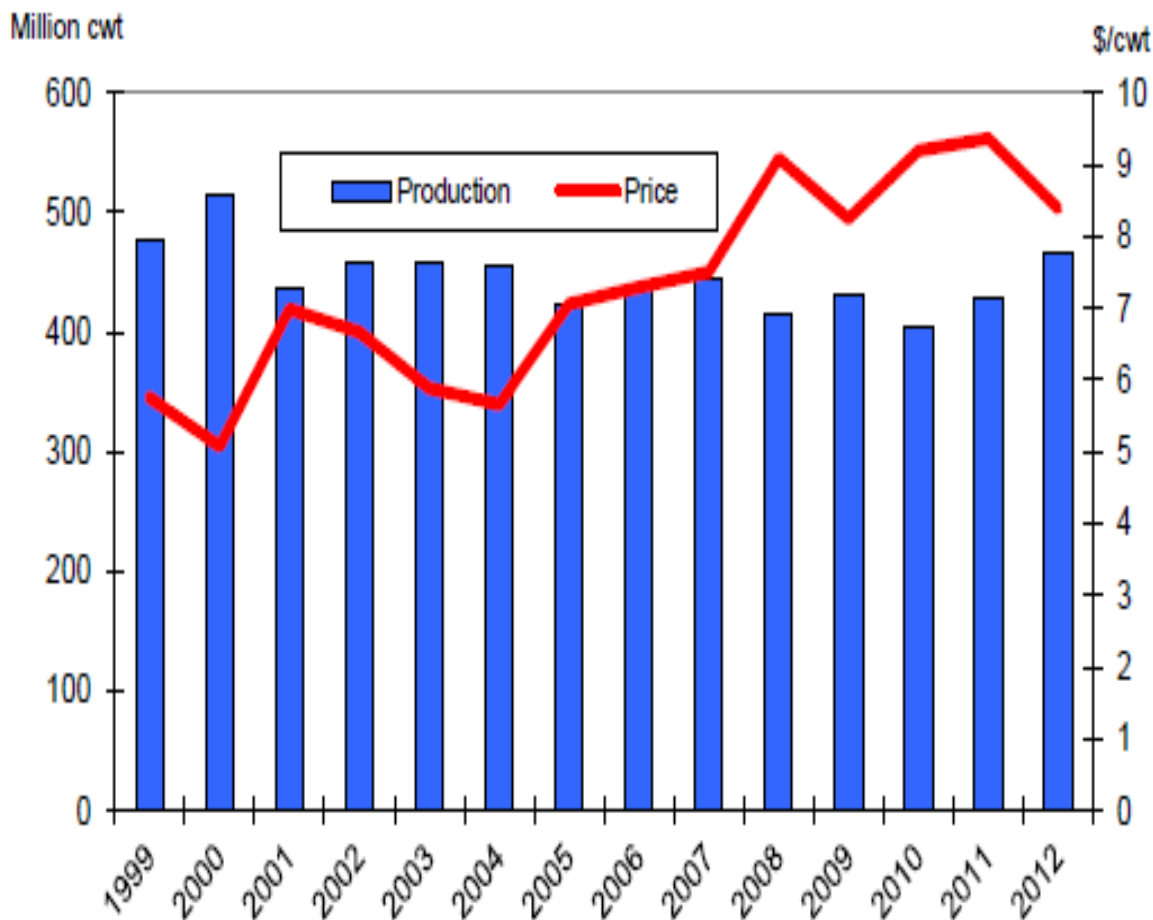
\* Average share of 2007-11 world production.  
Source: United Nations, Food and Agricultural Organization.

# U.S. broccoli, all uses: Shipments and shipping-point prices, 2010-2013



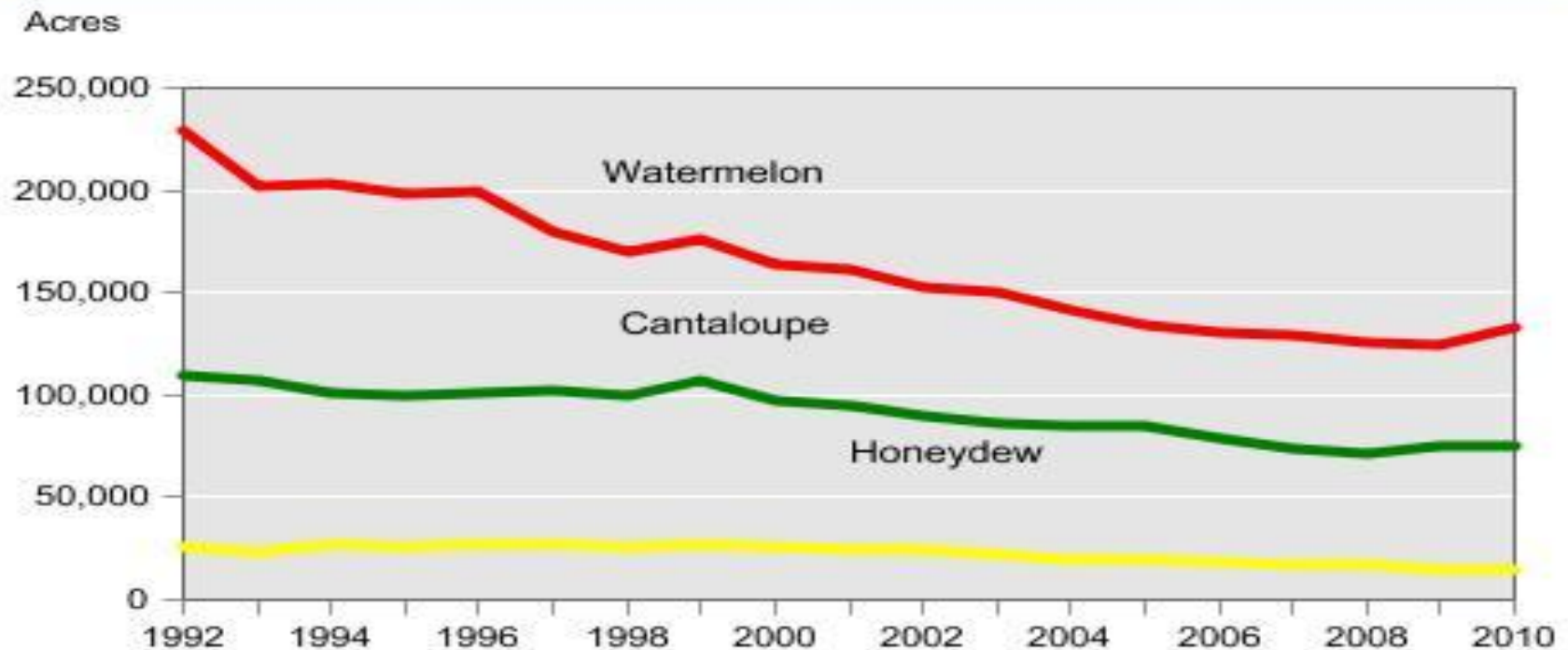
# Potato Prices and Production, 1999-2012

- In 2012, 46% of harv't potato was stocked by the 13 major producing states ~214 million cwt
- 155 million cwt stocked by CO, CA, WA, OR, ID and MT
- 11.3 million cwt stocked in Central States (ND, WI, MN, MI and NE), and
- 2.5 million cwt held in Maine and NY
- 107 million cwt used up by the 9 major processing states



# U.S. Melon Production Trend: 1992-2010

## U.S. harvested melon acreage declining



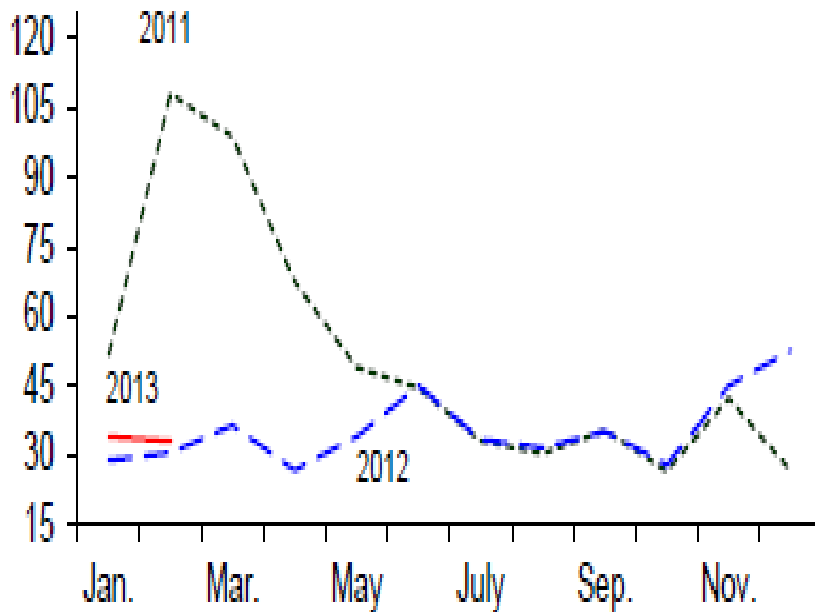
Source: USDA, National Agricultural Statistics Service, Vegetables Annual Summary, various issues.



# Fluctuating U.S. Seasonal Farm Gate Average Prices for Fresh Market Vegetables, 2011-2013

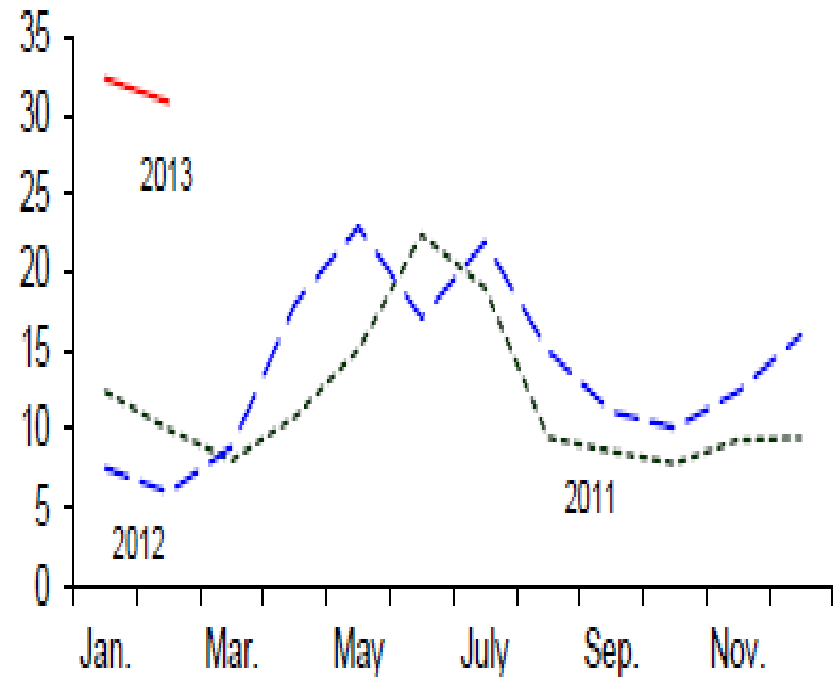
## Tomatoes

Cents/pound



## Onions

Cents/pound



# U.S. Average Advertised Prices for Selected Vegetables, February 2013

Vegetables	2013 Prices	Remarks
Celery	\$1.47/lb.	24% increase
Sweet corn	\$0.47/ear	6% increase
Cucumber	\$0.71/lb.	7% increase
Ice lettuce	\$1.06/head	1% decrease
Zucchini squash	\$1.56/lb.	5% increase
Round field-grown tomatoes	\$1.12/lb.	10% increase
Hothouse tomatoes on vine	\$2.29/lb.	11% increase
Green bell peppers	\$1.44/lb.	8% increase
Asparagus	\$2.44/lb.	16% increase
Green beans	\$1.48/lb.	n/a
Cabbage	\$0.50/lb.	9% increase
Baby Carrots	\$1.35/lb.	1% increase

# U.S. Fruits Top Producing States, 2010

U.S. fruit (excluding melons and tree nuts): top producing states, based on 2010 bearing acreage



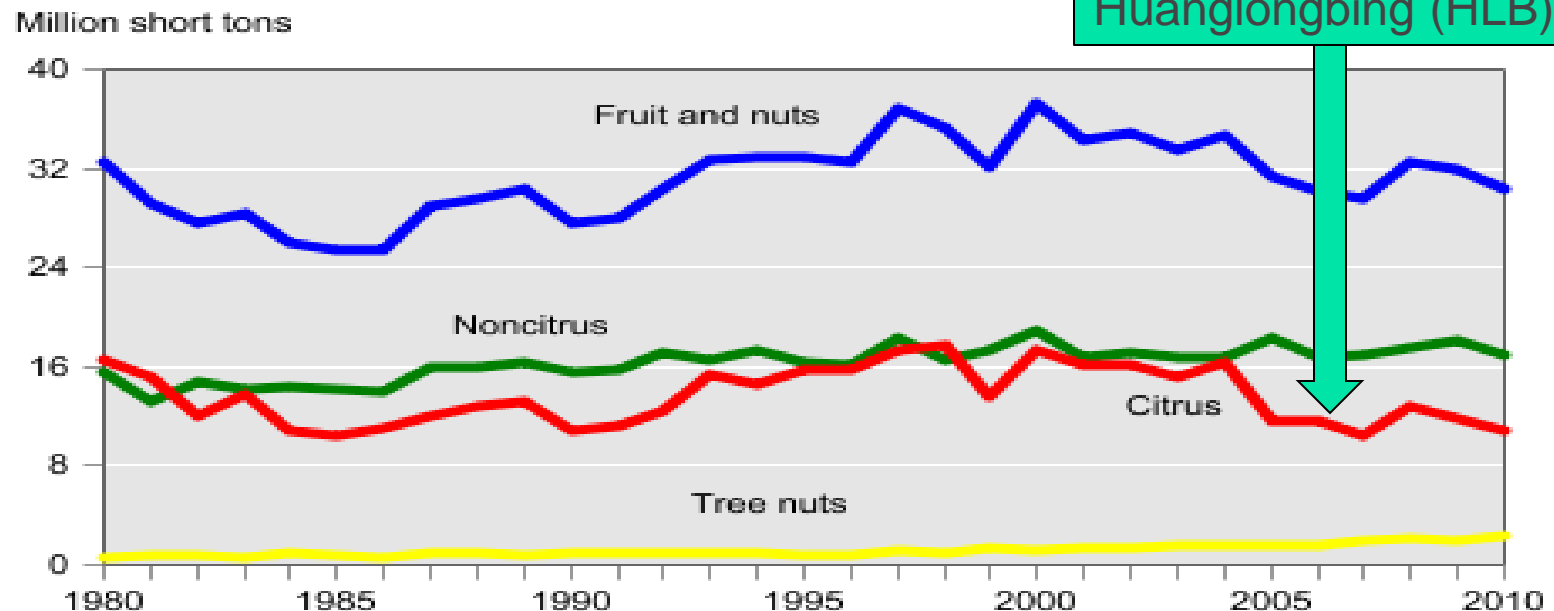
Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, Citrus Fruits 2011 Summary and Noncitrus Fruits and Nuts 2010 Summary.



# U.S. Fruit and Tree Nuts Utilized Production, 1980 - 2010

U.S. fruit and tree nuts: Utilized production

*citrus greening disease, also known as Huanglongbing (HLB),*



Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, Citrus Summary and Noncitrus Fruit and Nuts Summary.



# Major U.S. Fresh Fruit Imports: 2010-2012

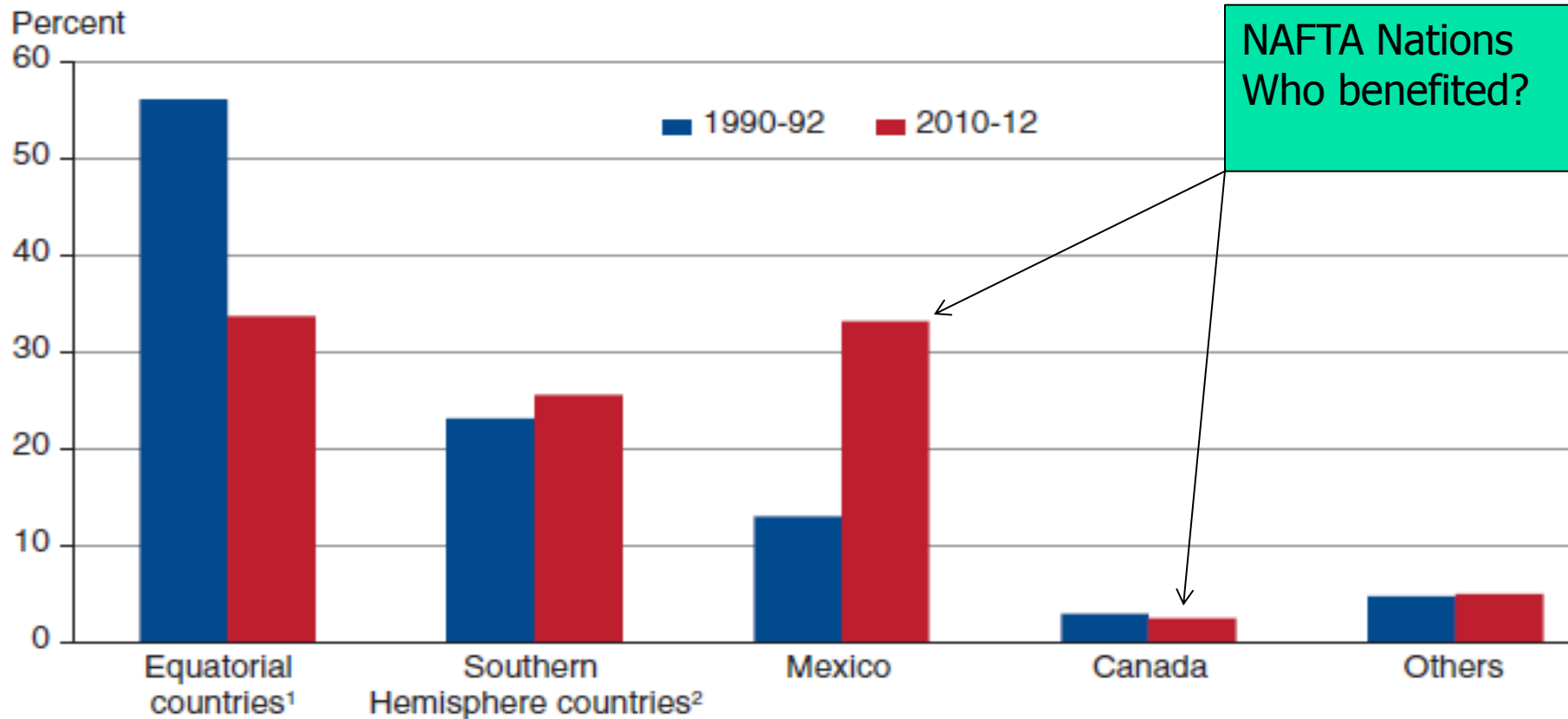
Commodity	Average value	Share of total imports	Major suppliers
	<i>\$ million</i>	<i>Percent</i>	
Fresh fruit	6,893.6	100.0	Mexico (33%), Chile (19%), Costa Rica (11%)
Bananas	1,952.7	28.3	Guatemala (30%), Ecuador (22%), Costa Rica (19%), Colombia (12%), Honduras (10%)
Grapes	1,120.4	16.3	Chile (58%), Mexico (33%)
Berries	1,038.3	15.1	Mexico (58%), Chile (21%), Canada (14%)
Other tropical <sup>1</sup>	925.5	13.4	Costa Rica (45%), Mexico (30%)
Avocados	782.6	11.4	Mexico (86%), Chile (9%)
Citrus	508.8	7.4	Mexico (42%), Chile (17%), Spain (16%), South Africa (9%)
Apples and pears	241.4	3.5	Chile (43%), New Zealand (19%), Argentina (16%), Canada (9%)
Stone fruit <sup>2</sup>	154.8	2.2	Chile (92%)
Other fruit	169.0	2.5	

<sup>1</sup>Includes pineapples, mangoes, papayas, and durians.

<sup>2</sup>Includes apricots, cherries, peaches, and plums.

Source: USDA, Economic Research Service analysis of data from Global Trade Information Services, Inc.

# Value Shares of Total U.S. Fresh Fruit Imports by Region, 1990 - 2012

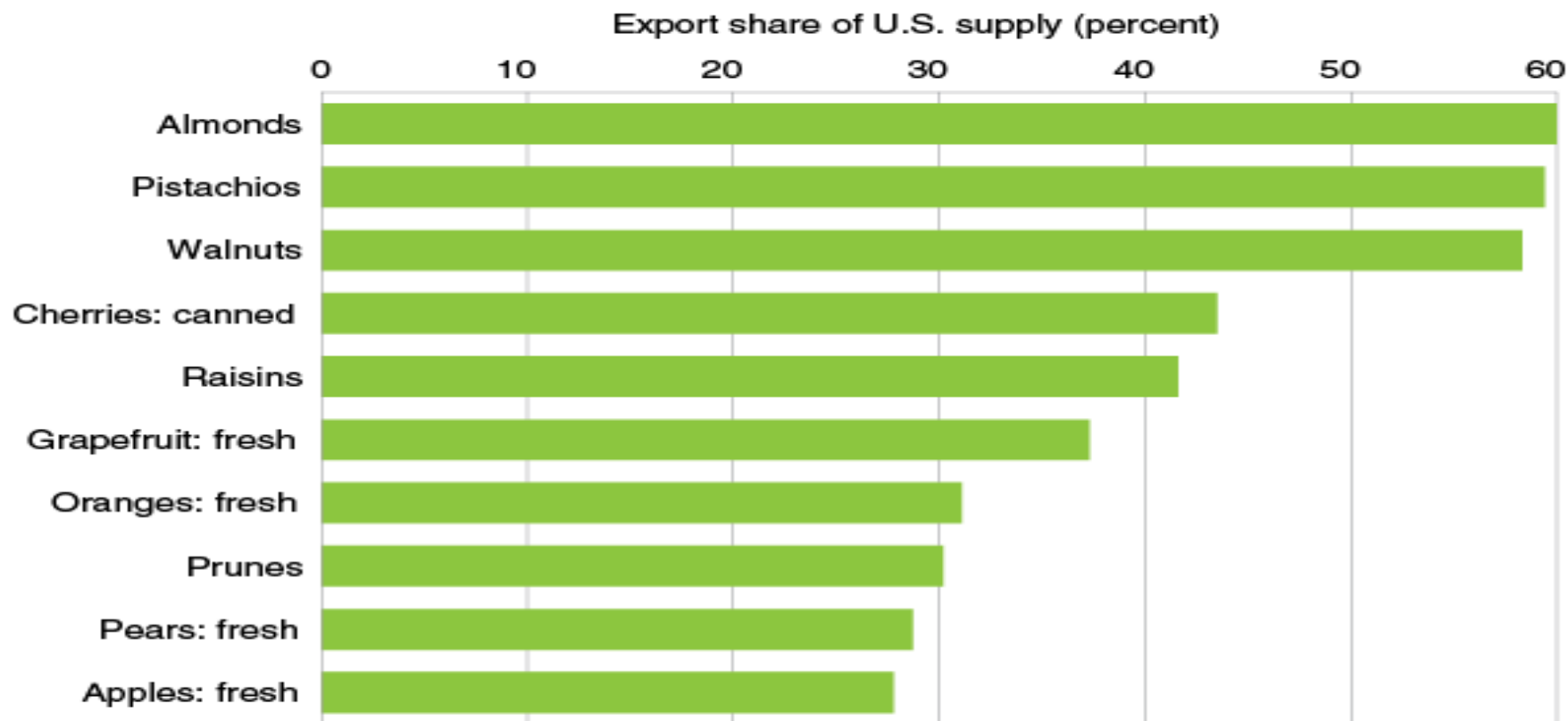


<sup>1</sup>Equatorial countries include Costa Rica, Guatemala, Ecuador, Colombia, and Honduras.

<sup>2</sup>Southern Hemisphere countries include Chile, Argentina, Peru, New Zealand, Brazil, South Africa, and Australia.

# U.S. Export Share for Selected Fruits and nuts

Many U.S. horticultural producers rely heavily on foreign sales

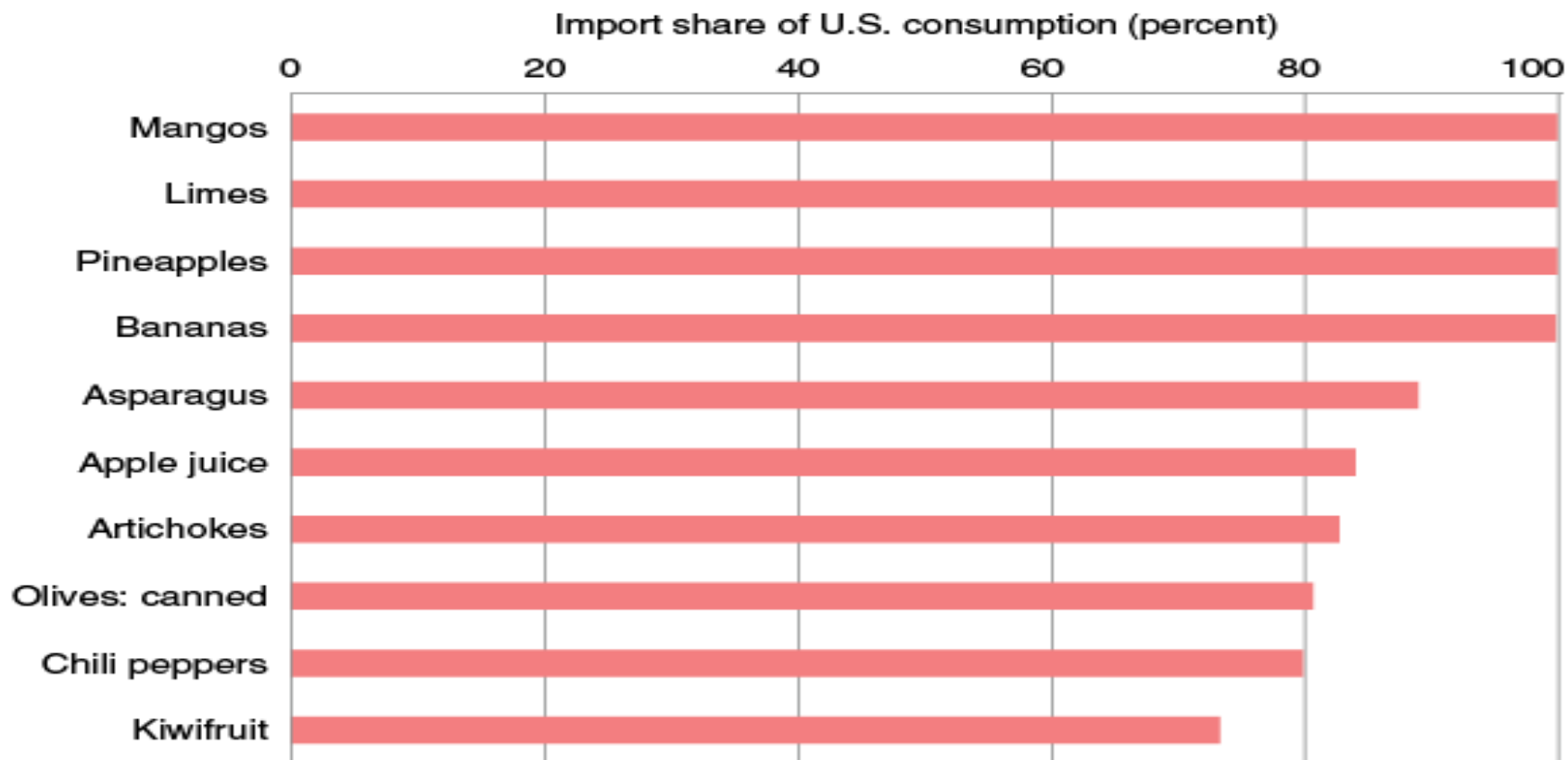


Note: Percentage exported is defined as total exports (volume) divided by total supplies where supply equals production plus imports plus stocks.

Source: USDA, Economic Research Service, *Fruit and Nut Yearbook*.

# U.S. Consumption of Tropical Horticultural Products

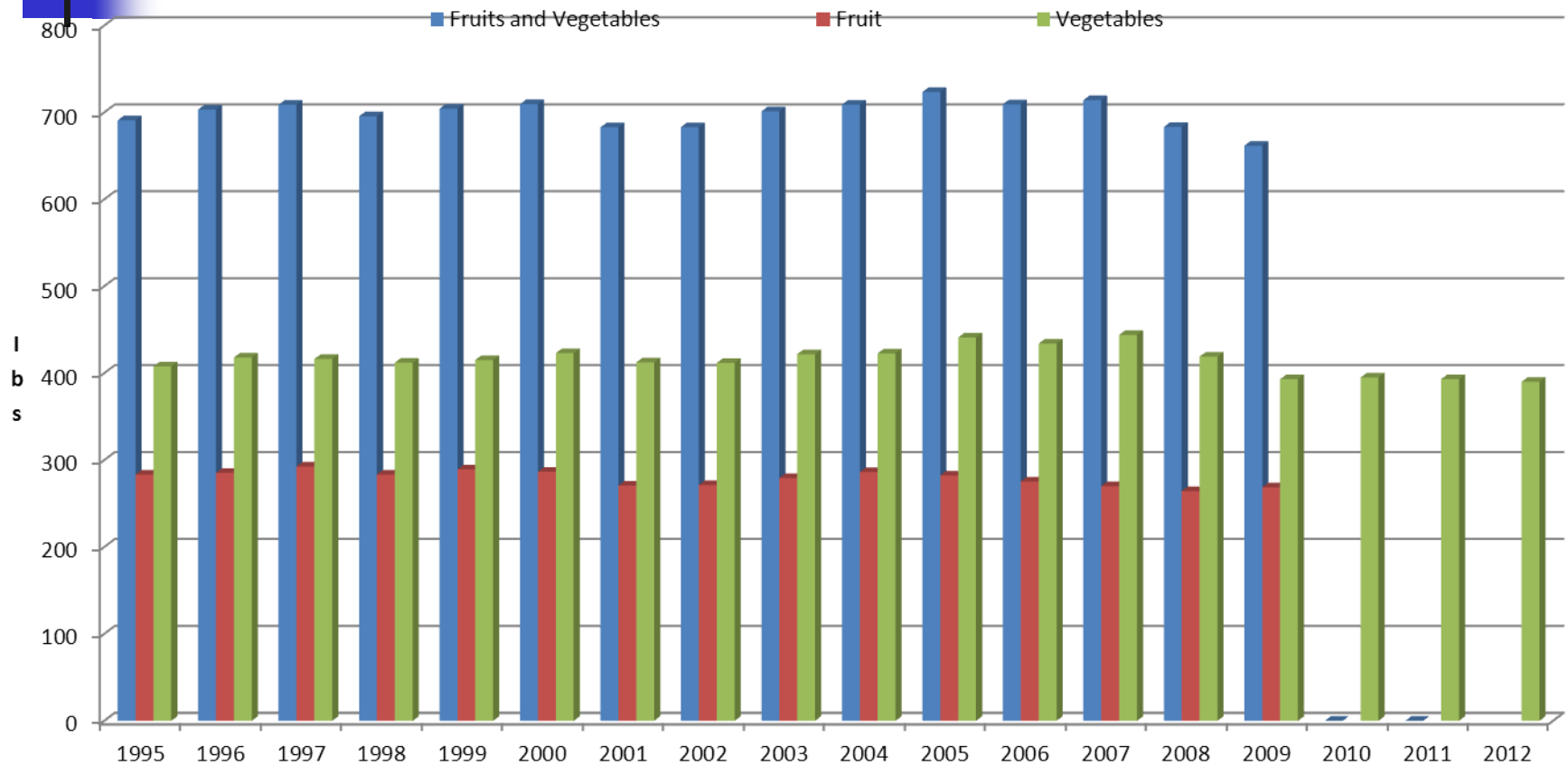
U.S. consumers depend on overseas tropical and other horticultural products



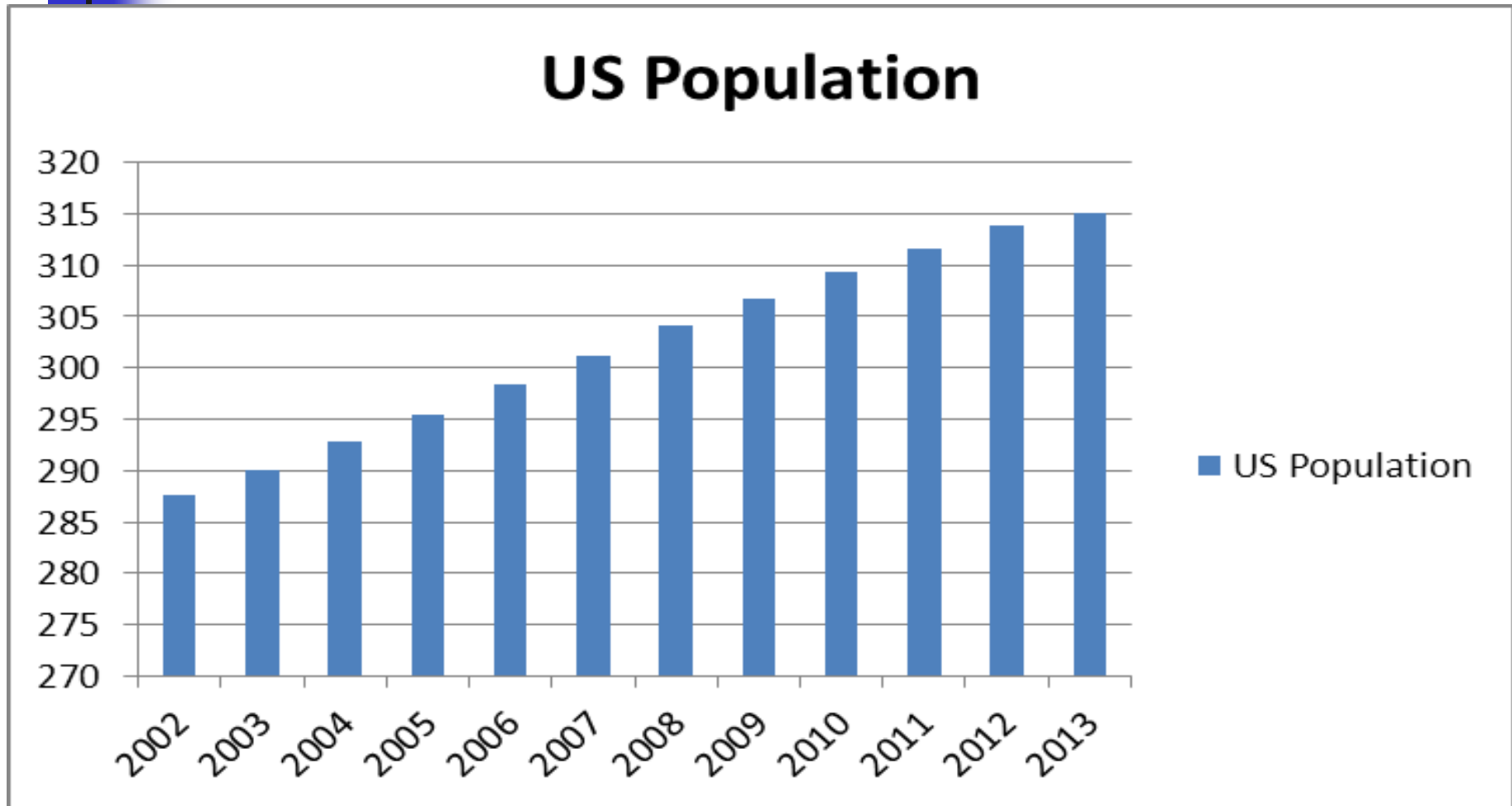
Note: Percentage imported is defined as total imports (volume) divided by total consumption.  
Source: USDA, Economic Research Service, *Fruit and Nut* and *Vegetable and Melon Yearbooks*.



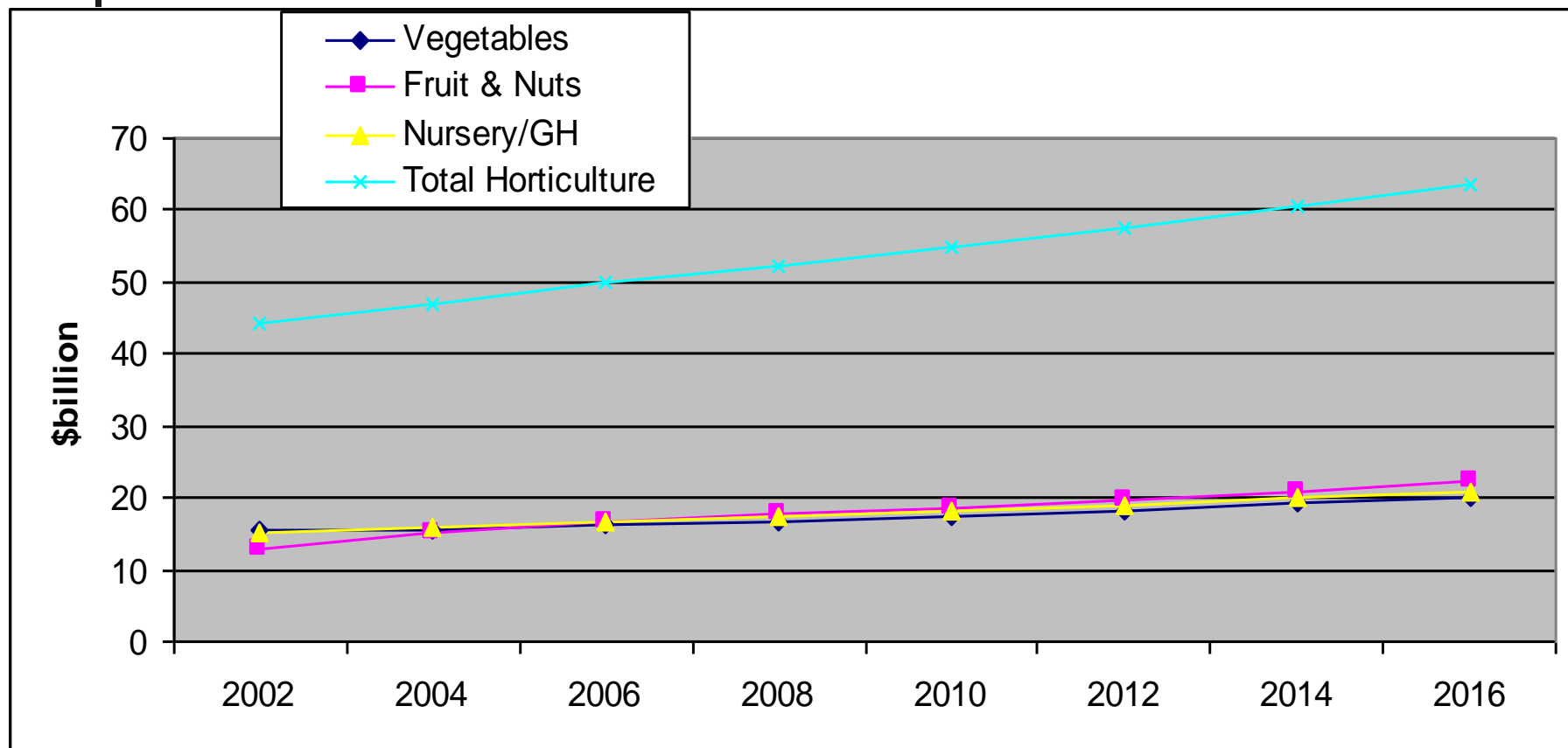
# U.S. Per Capita Consumption of Fruits and Vegetables, 1995-2012



# US Population Growth, 2002 – 2013 (millions)

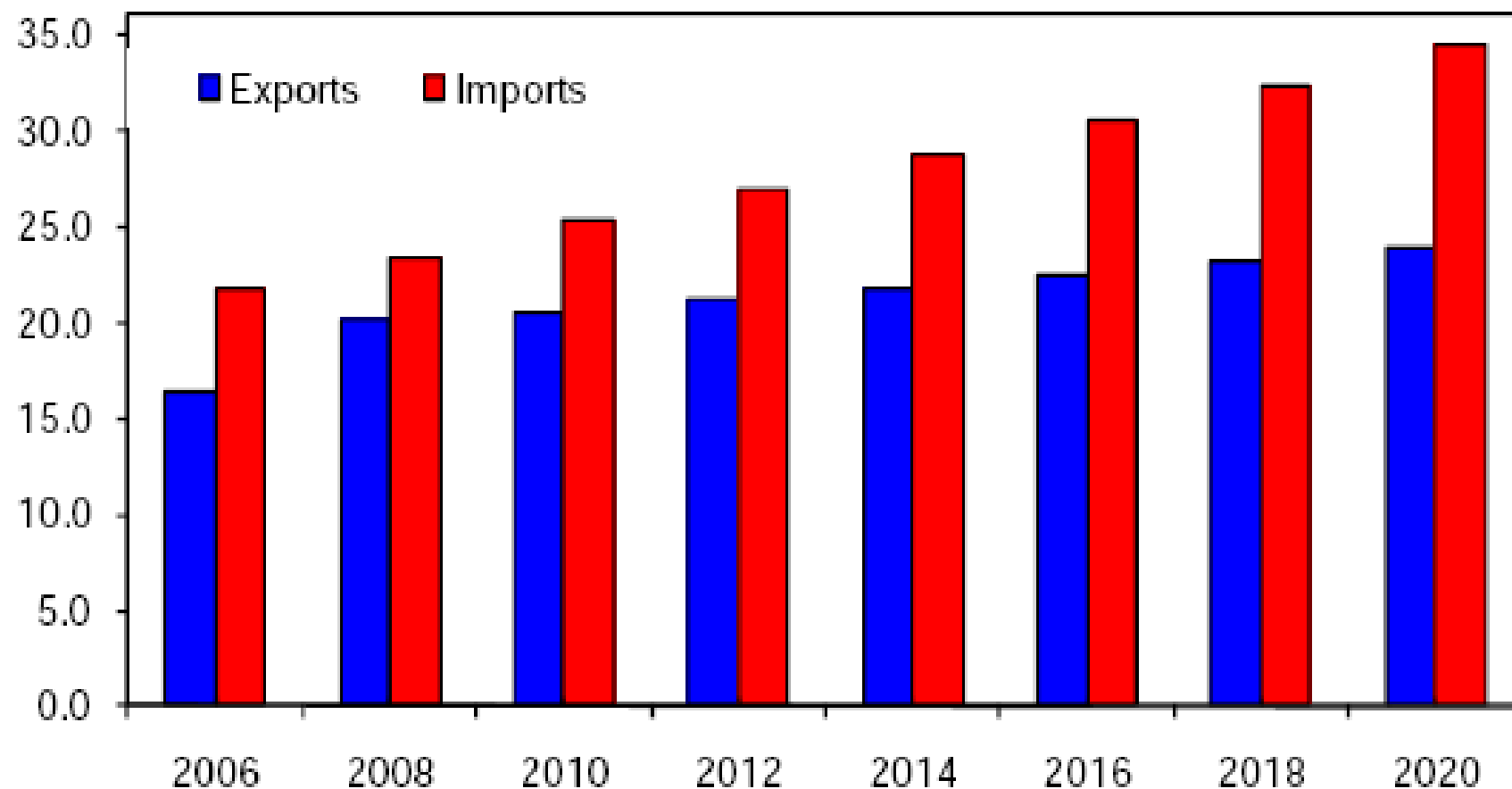


# ERS Baseline Forecasts of Horticulture Production Values, 2002-2016



## Vegetables and melons: U.S. trade volume, 2006-20

Billion pounds

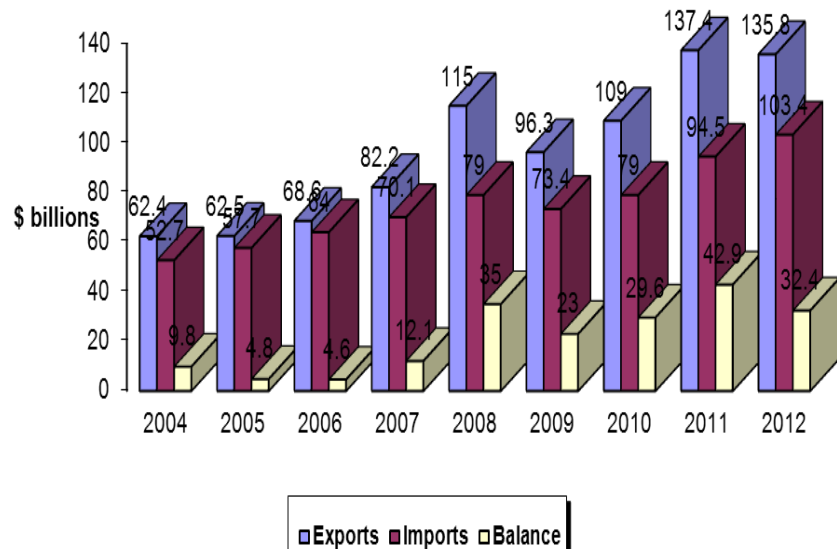


Source: Historical data (2006-08) from U.S. Dept of Commerce, U.S. Census Bureau, projections by USDA, Economic Research Service (2010-20).

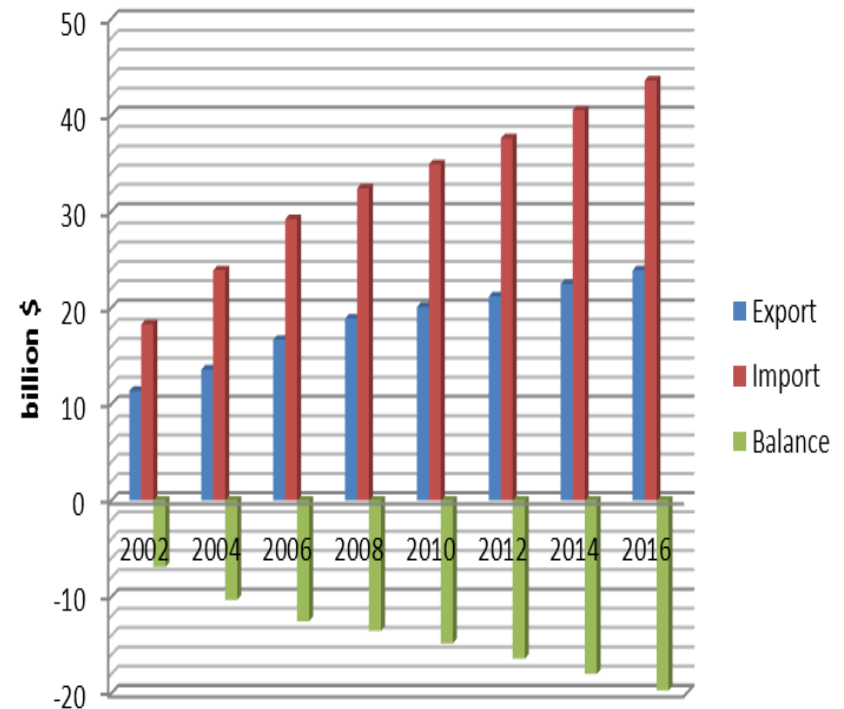
# Projection of U.S. Agricultural Trade Vs. U.S. Horticultural Trade, 2002-2016

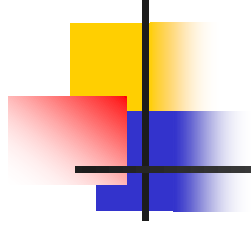
## U.S. Agricultural Trade

U.S. Agricultural Trade, 2004-2012

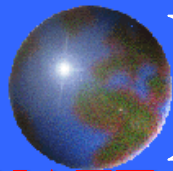


## U.S. Horticultural Trade





# Global Issues and Chinese Dominance



**CUSTA, '89**

**Jordan '01**

**NAFTA '94**

**CAFTA-DR '06**

**Bahrain '06**

**Israel '85**

**Morocco '06**

*Trans-Pacific  
Partnership  
Agreement, 2013*

**Thailand '06**

**Andean FTA  
'06**

**Panama '06**

**MEFTA  
'06**

**FTAA '07**

**Chile '04**

**Singapore '03**

*EU Comprehensive Trans-  
Atlantic Agreement, 2013*

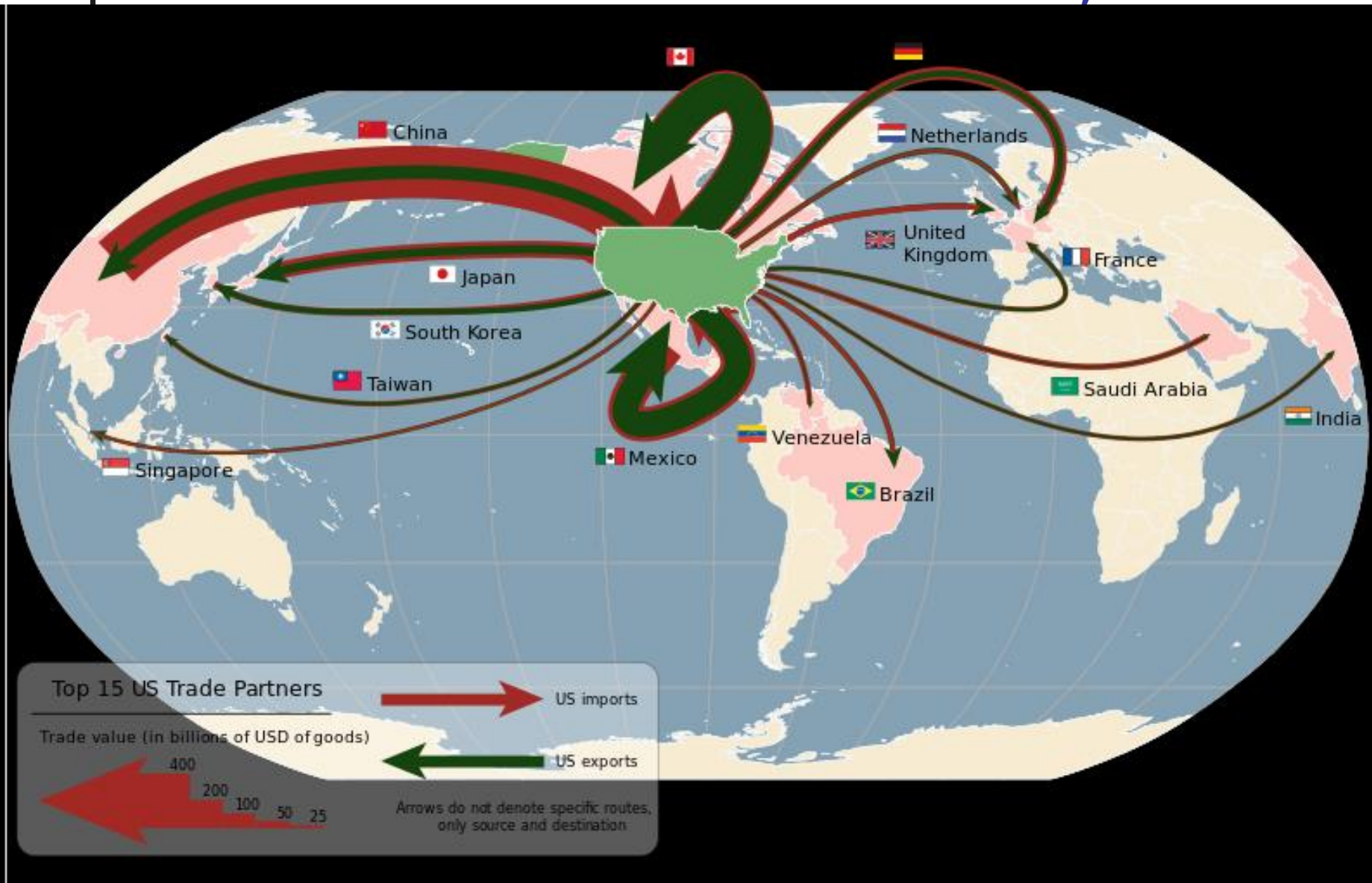
**Southern African  
Customs Union '06**

**Australia '05**

# ***U.S. Trade Agreements***

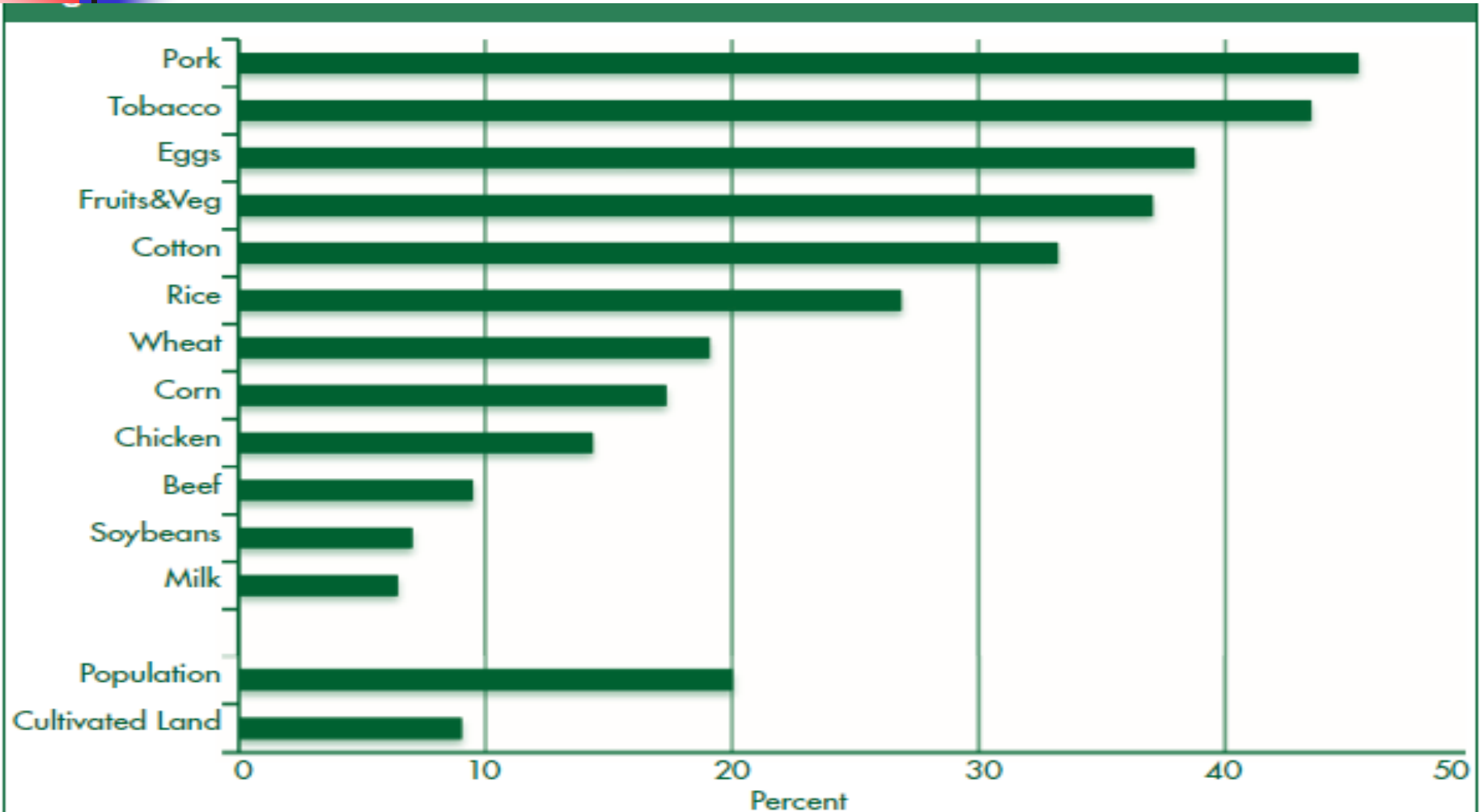
Courtesy of Dr. Parr Rosson, Texas  
A&M University.

# Chinese World Trade Dominance, 2012





# China's Share of World Food Production

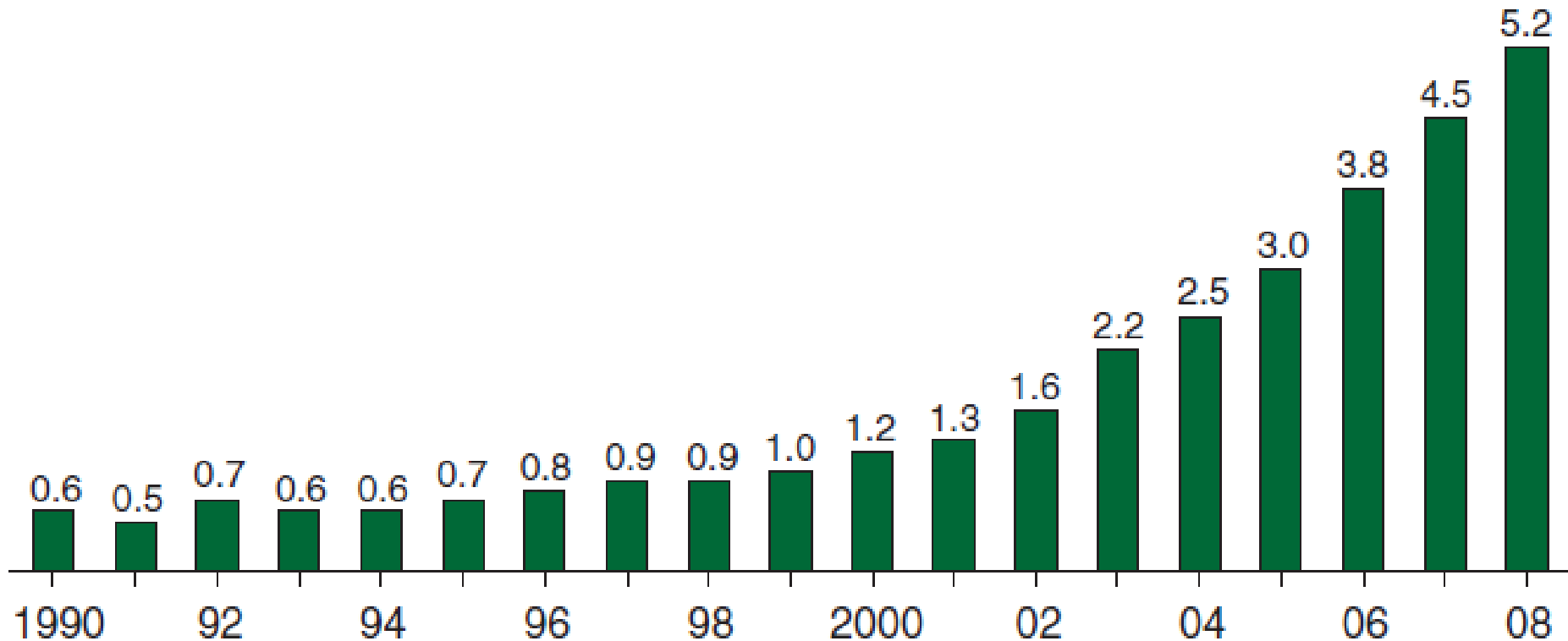


Source: Compiled from Food and Agriculture Organization (FAO) data.

# Value of U.S. Food Imports from China, 1990-2008

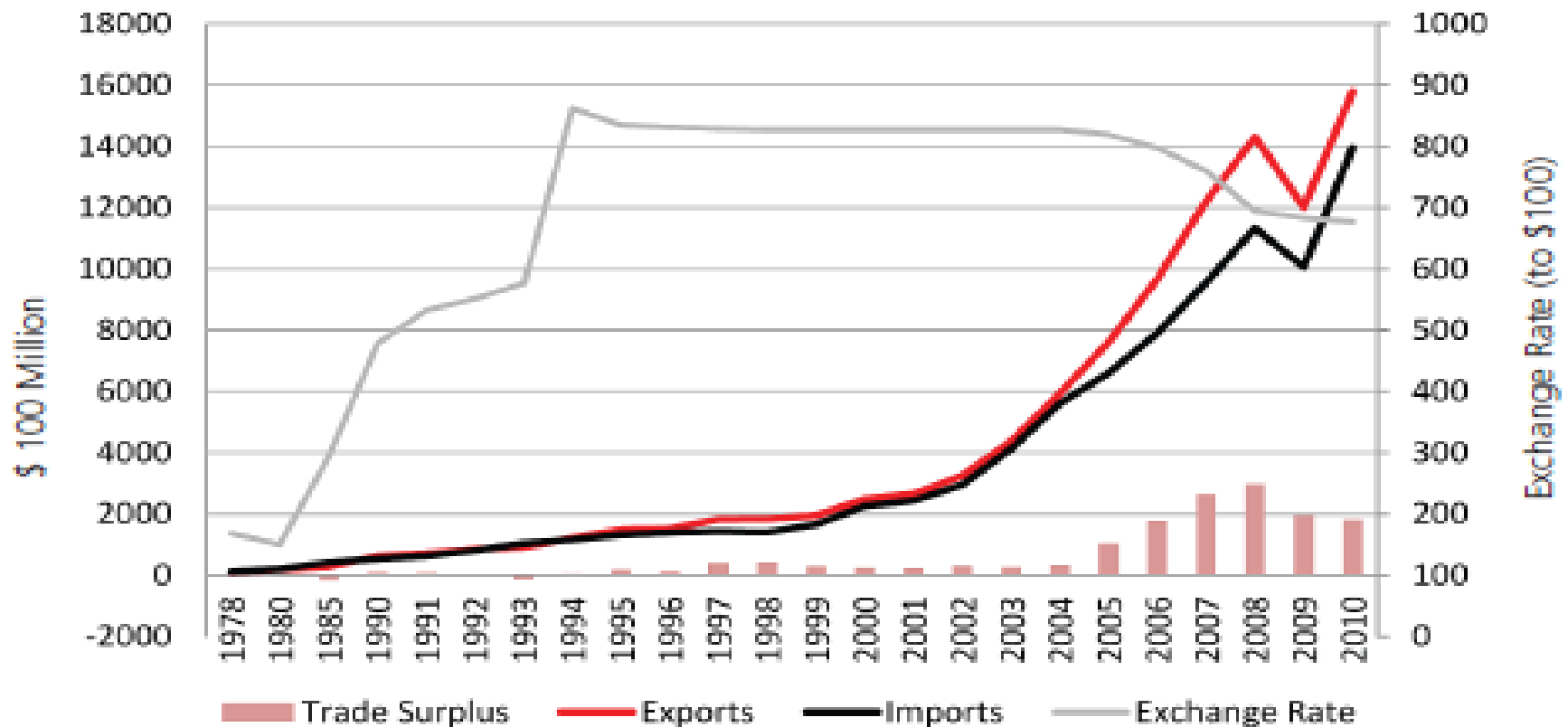


\$ billion



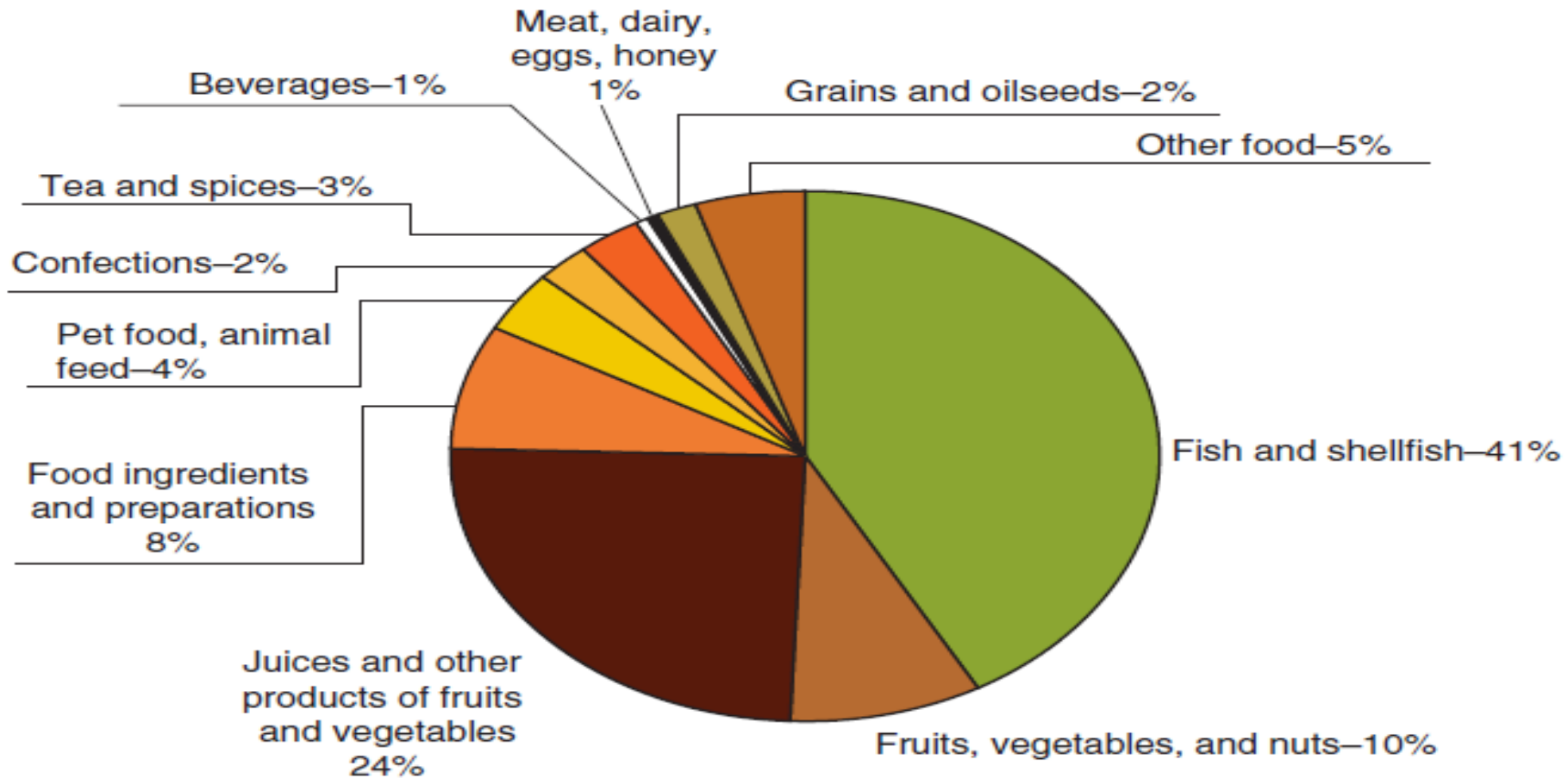
Source: Estimated by ERS from U.S. Customs statistics accessed through Global Trade Information Services.

# China Trade and Exchange Rate: 1978 - 2010



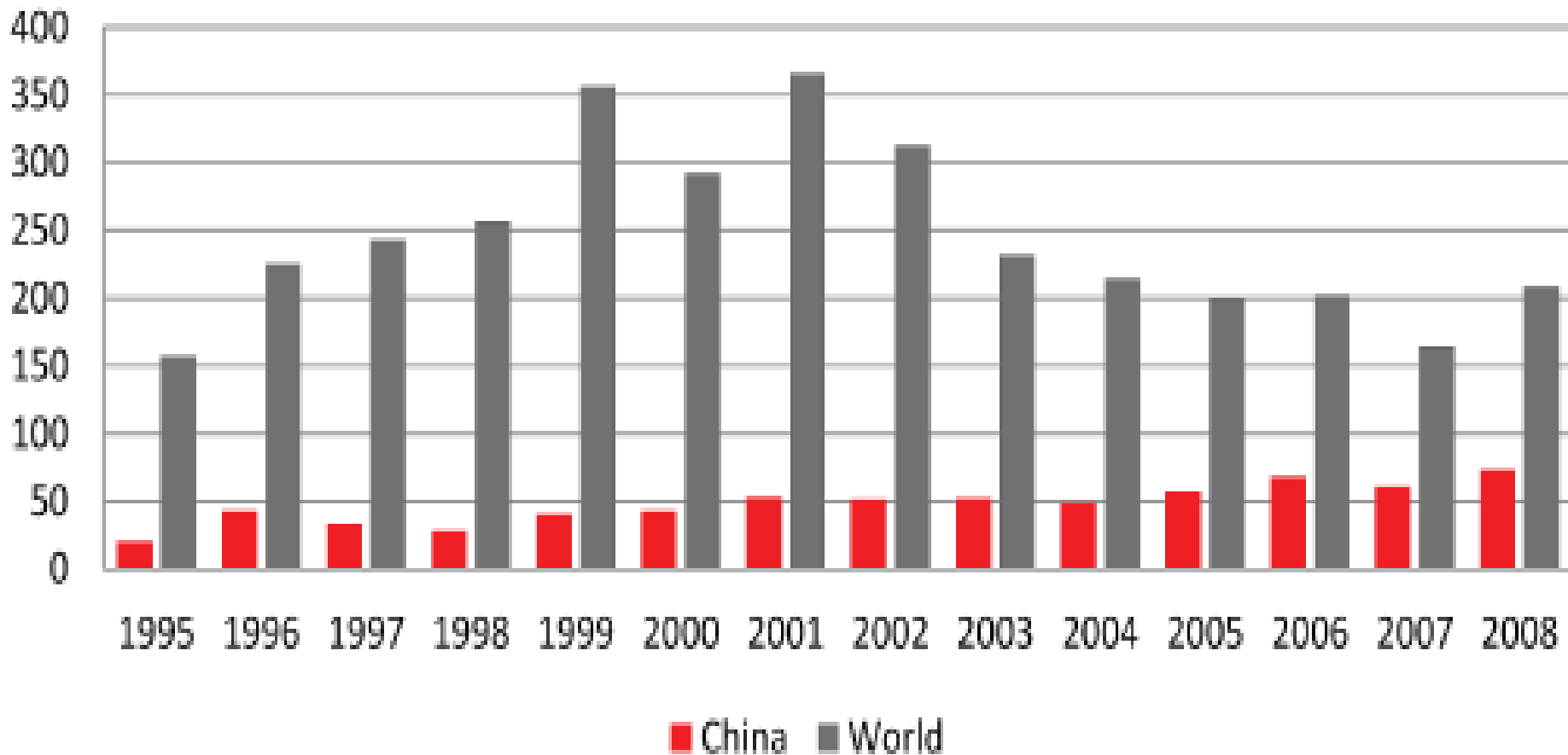
Source: <http://www.lse.ac.uk/IDEAS/publications/reports/pdf/SR012/li.pdf>

# Value of U.S. Food Imports from China by Categories



Note: Chart shows share of U.S. food imports from China by value. Percentages do not add to 100 due to rounding.

# Antidumping & Countervailing Investigations Against China, 1995-2008



# Concluding Remarks

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- The new free trade agreement being negotiated by the United States will bring the needed opportunities for horticultural products especially the fruits and vegetable industry.
  - The Trans-Pacific Partnership and the European Union Comprehensive Trans-Atlantic Agreement are all aimed at liberalizing trade between the signatory countries.
  - These trade agreements are supposed to reduce tariffs and improve the sanitary, phytosanitary (SPS) requirements and technical standards that are all hindering increased market share of the U.S. fruit and vegetables in those markets.

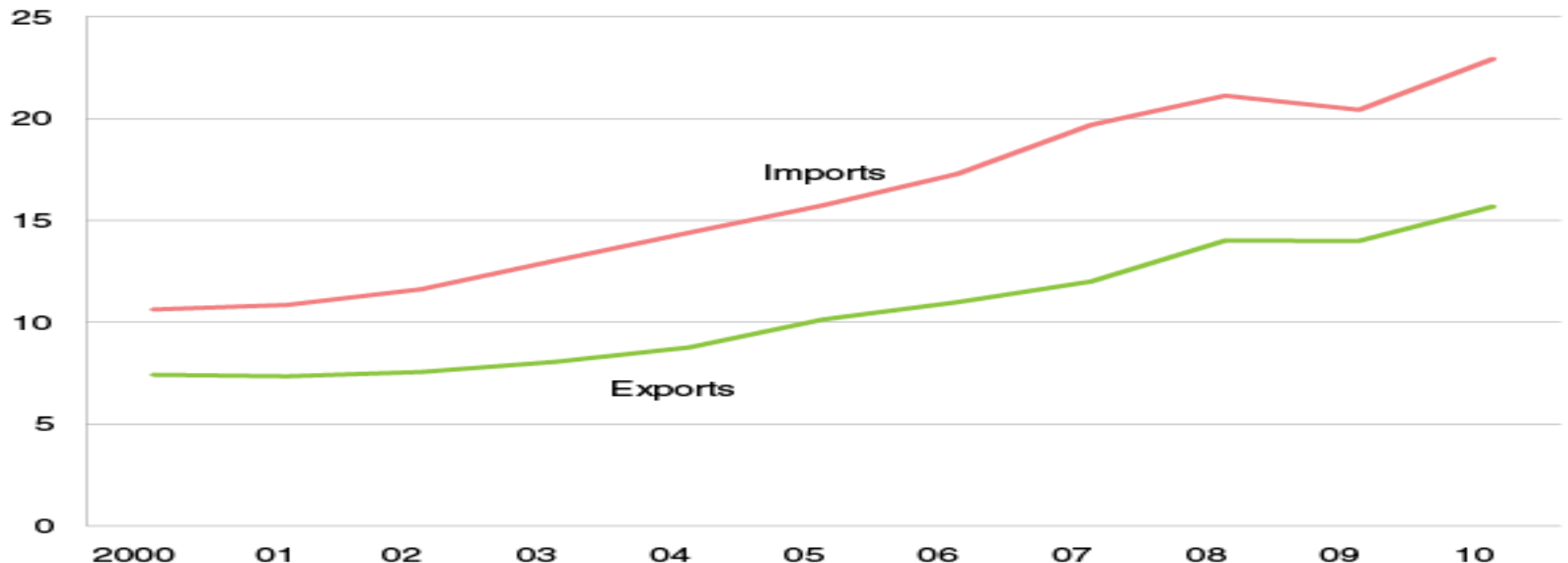
# THANK YOU Questions?



# U.S. Horticultural Trade Deficit

**The trade deficit between U.S. horticultural imports and exports has expanded in recent years**

\$ billions

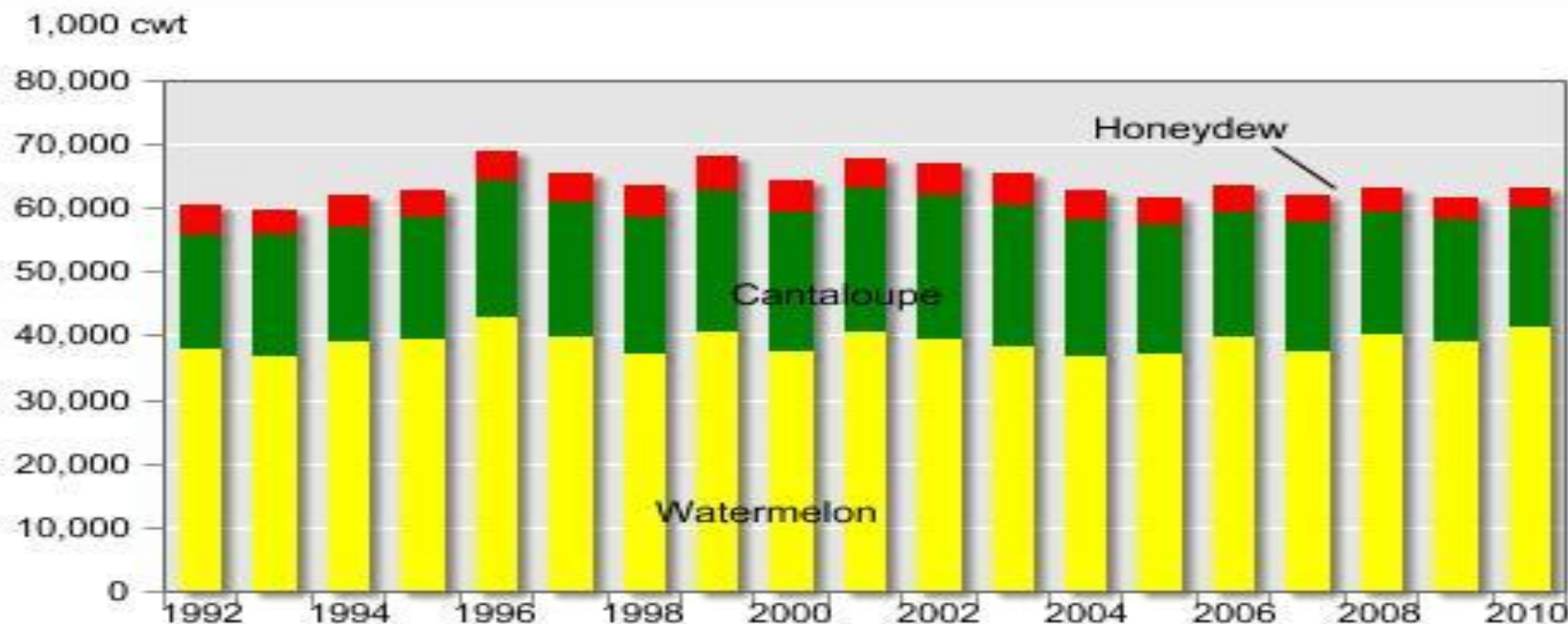


Source: USDA, Economic Research Service using data from UN Comtrade database for WITS.



# U.S. Melon Production Shares: 1992-2010

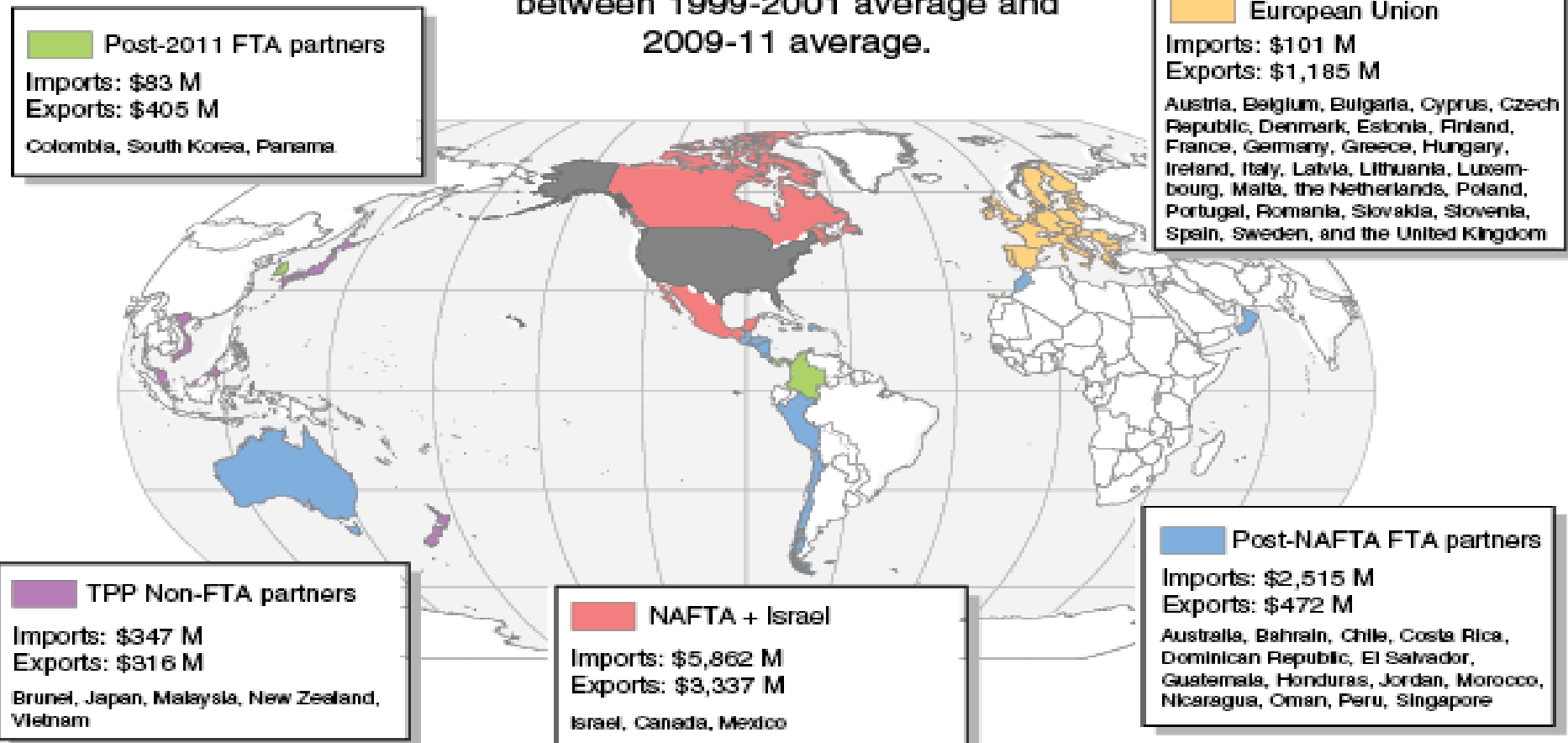
## Watermelon dominate U.S. melon production



Source: USDA, National Agricultural Statistics Service, Vegetables Annual Summary, various issues.

# U.S. horticultural trade has increased significantly with both FTA partners and potential FTA partners

Change in U.S. horticultural trade  
between 1999-2001 average and  
2009-11 average.



Notes: Trade figures represent growth between the 3-year averages of 1999-2001 and 2009-11.  
Source: USDA, Economic Research Service computations using data from UN Comtrade database.