Specialty Crop Outlook

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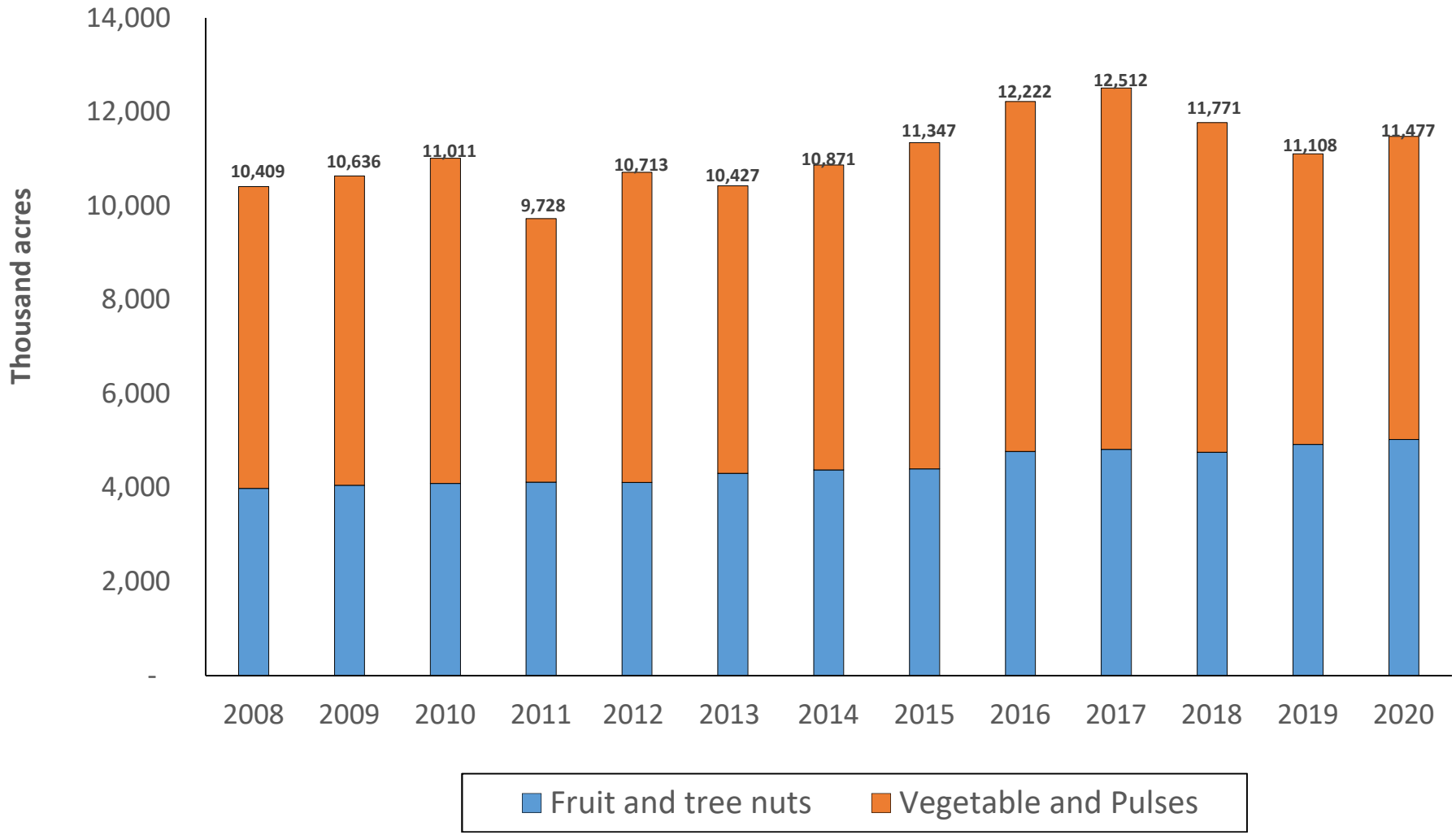
MISSISSIPPI STATE UNIVERSITY EXTENSION

Outline

- General overview: acreage and production
- Imports
- Industry trends, challenges, and opportunities

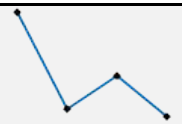
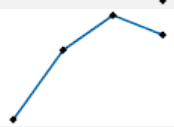
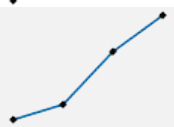
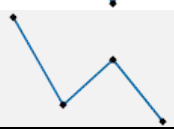
General overview: acreage and production

Vegetable, fruit, and tree nut acreage



Source: USDA-ERS. Vegetables and Pulses Yearbook, 2022; Fruit Yearbook, 2021.

U.S. vegetable and pulse industry overview

Item	2018	2019	2020	2021		% Change 2020-2021
Area harvested (1,000 acres)	7,095	6,371	6,618	6,309		-4.7
Production (Million cwt)	1,249	1,152	1,151	1,084		-5.9
Crop value ($ millions)	19,274	19,137	19,780	18,253		-7.7
Unit value ($/cwt)	15.43	16.61	17.18	16.85		-2
Imports ($ millions)	13,358	13,885	15,624	16,810		7.6
Exports ($ millions)	6,917	7,177	6,844	7,292		6.6
Per-capita availability (Pounds)	402.6	387.3	395.2	384.3		-2.8

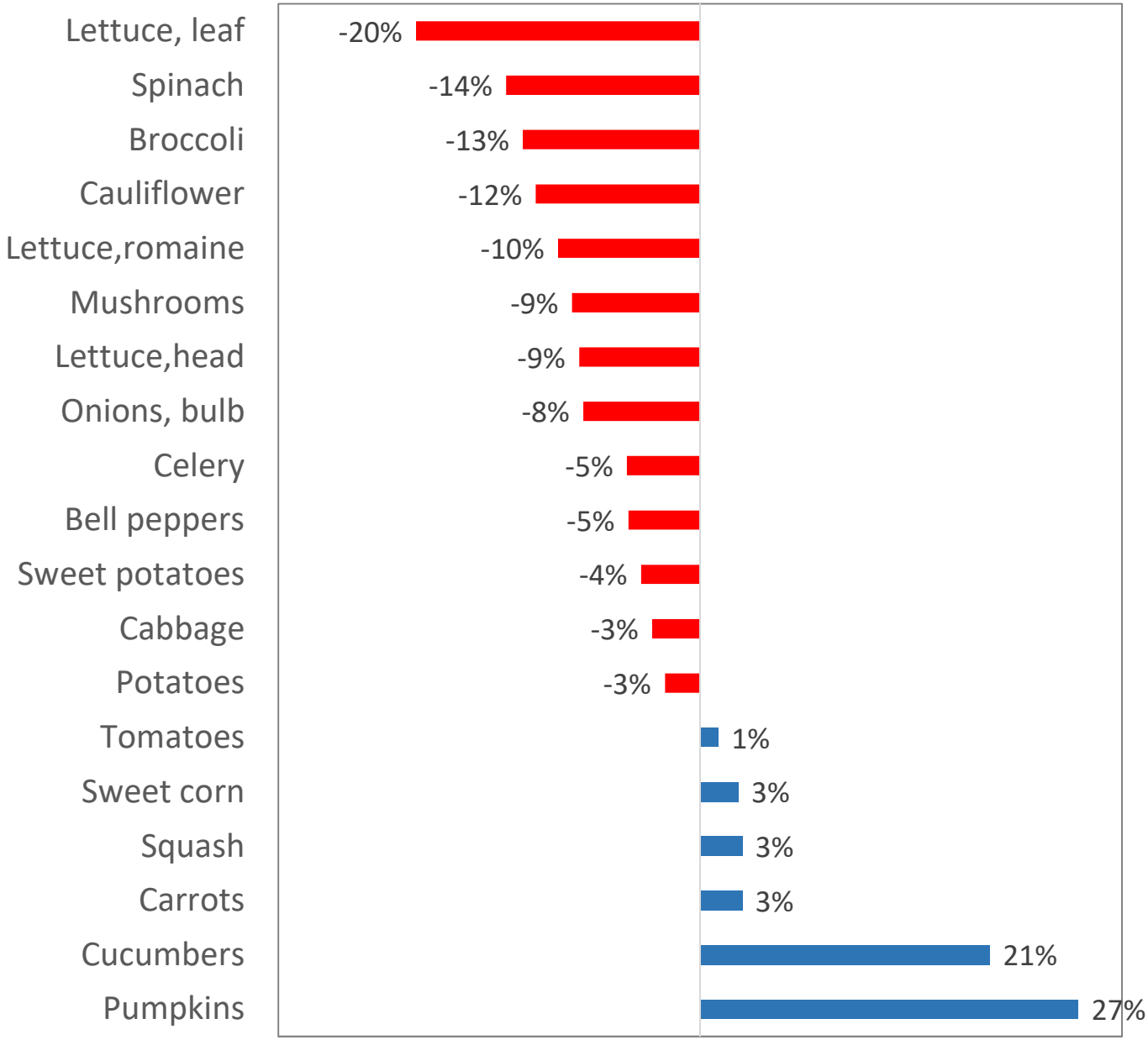
Source: USDA-ERS. Vegetables and Pulses Outlook, April 2022.

Fresh vegetable overview 2018-2021

Item	2018	2019	2020	2021		% Change 2020-2021
Area harvested (1,000 acres)	2,485	2,357	2,280	2,274		-0.3
Production (Million cwt)	341	313	304	290		-4.5
Crop value ($ millions)	10,695	10,780	11,380	9,890		-13.1
Unit value ($/cwt)	31.32	34.47	37.47	34.1		-9.0
Imports ($ millions)	7,943	8,511	9,526	10,009		5.1
Exports ($ millions)	2,312	2,392	2,306	2,384		3.4
Per-capita availability (Pounds)	154.4	149.2	146.9	146.1		-0.6

Source: USDA-ERS. Vegetables and Pulses Outlook, April 2022.

Change in production, 2020-2021



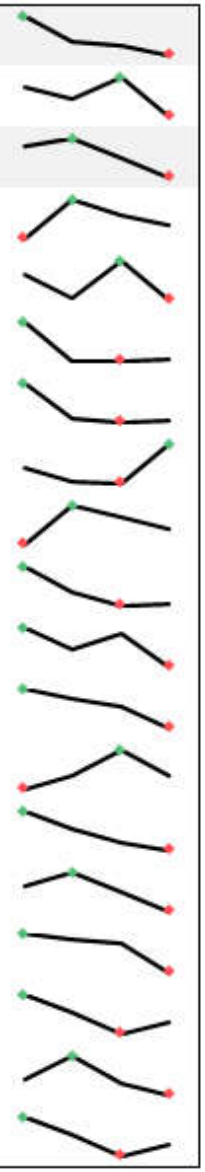
Source: USDA-ERS. Vegetables and Pulses Outlook, April 2022.

Production trends for major vegetables

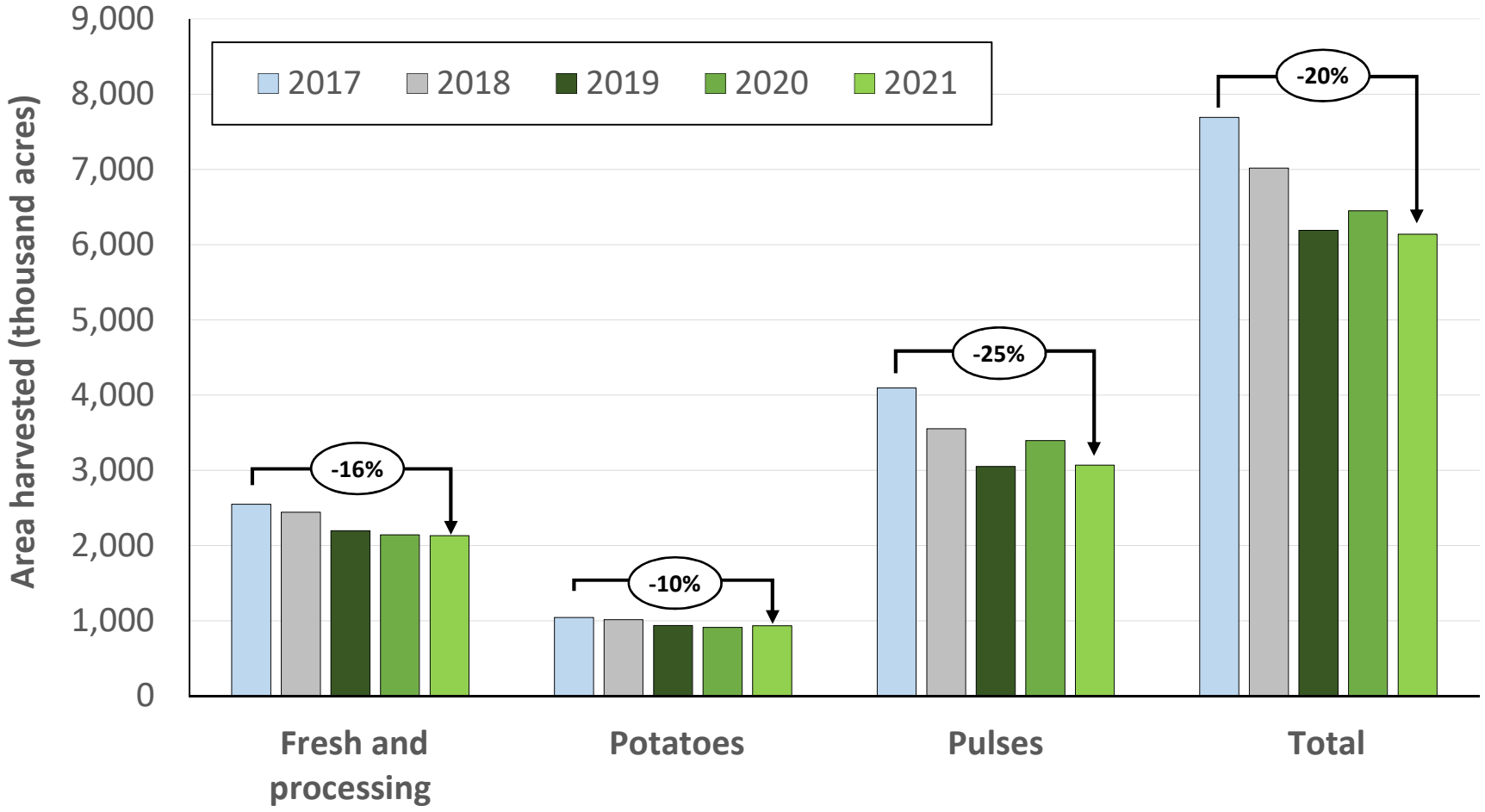
Production (in Million pounds)

Source: USDA-ERS. Vegetables and Pulses Outlook, April 2022.

Commodity	2018	2019	2020	2021p
Potatoes	45,002	42,442	42,002	40,967
Onions, bulb	6,283	6,134	6,422	5,890
Lettuce,head	4,056	4,201	3,845	3,514
Sweet potatoes	2,738	3,197	3,013	2,885
Lettuce,romaine	2,923	2,741	3,029	2,723
Carrots	3,662	2,432	2,416	2,489
Tomatoes	2,710	2,172	2,109	2,137
Pumpkins	1,910	1,750	1,723	2,186
Cabbage	1,730	1,946	1,876	1,813
Sweet corn	2,255	1,677	1,385	1,422
Celery	1,627	1,574	1,613	1,529
Broccoli	1,678	1,584	1,526	1,333
Lettuce, leaf	1,073	1,247	1,564	1,248
Bell peppers	1,290	1,159	1,058	1,004
Cauliflower	931	1,006	894	789
Mushrooms	782	767	761	691
Squash	739	709	671	691
Spinach	674	856	645	556
Cucumbers	560	459	330	398

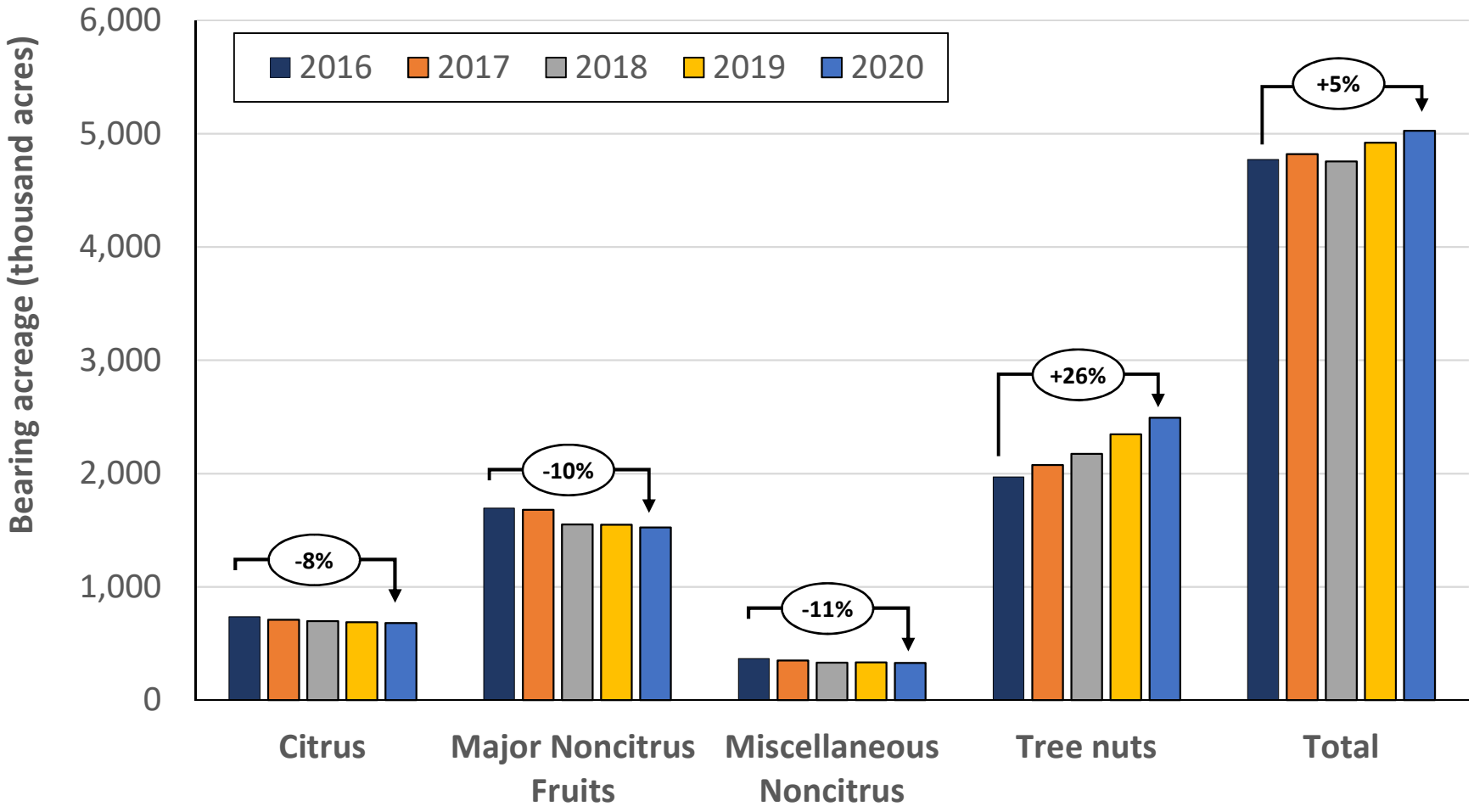


Vegetables and pulses harvested area declined 20% from 2016 to 2021



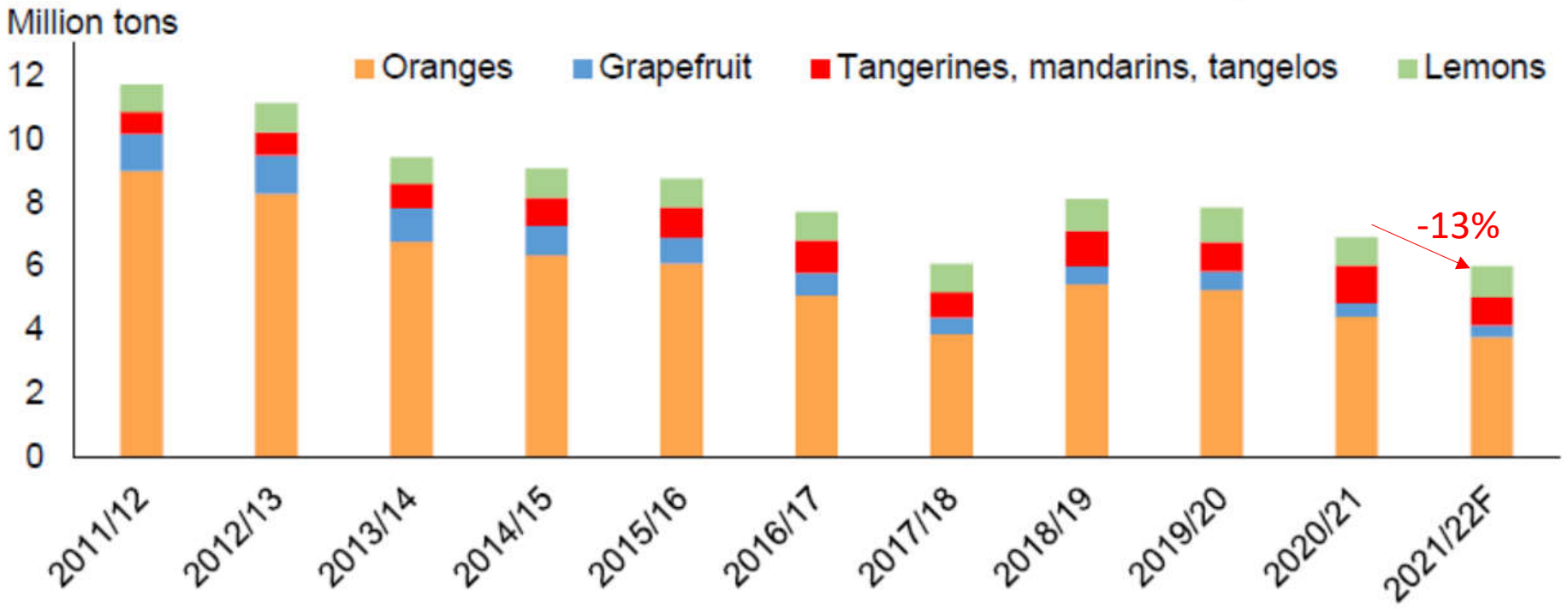
Source: USDA-ERS. Vegetables and Pulses Yearbook, 2022.

Citrus and non-citrus fruit bearing acreage has declined while tree nuts acreage increased from 2016 to 2021



Source: USDA-ERS. Fruit Yearbook, 2021.

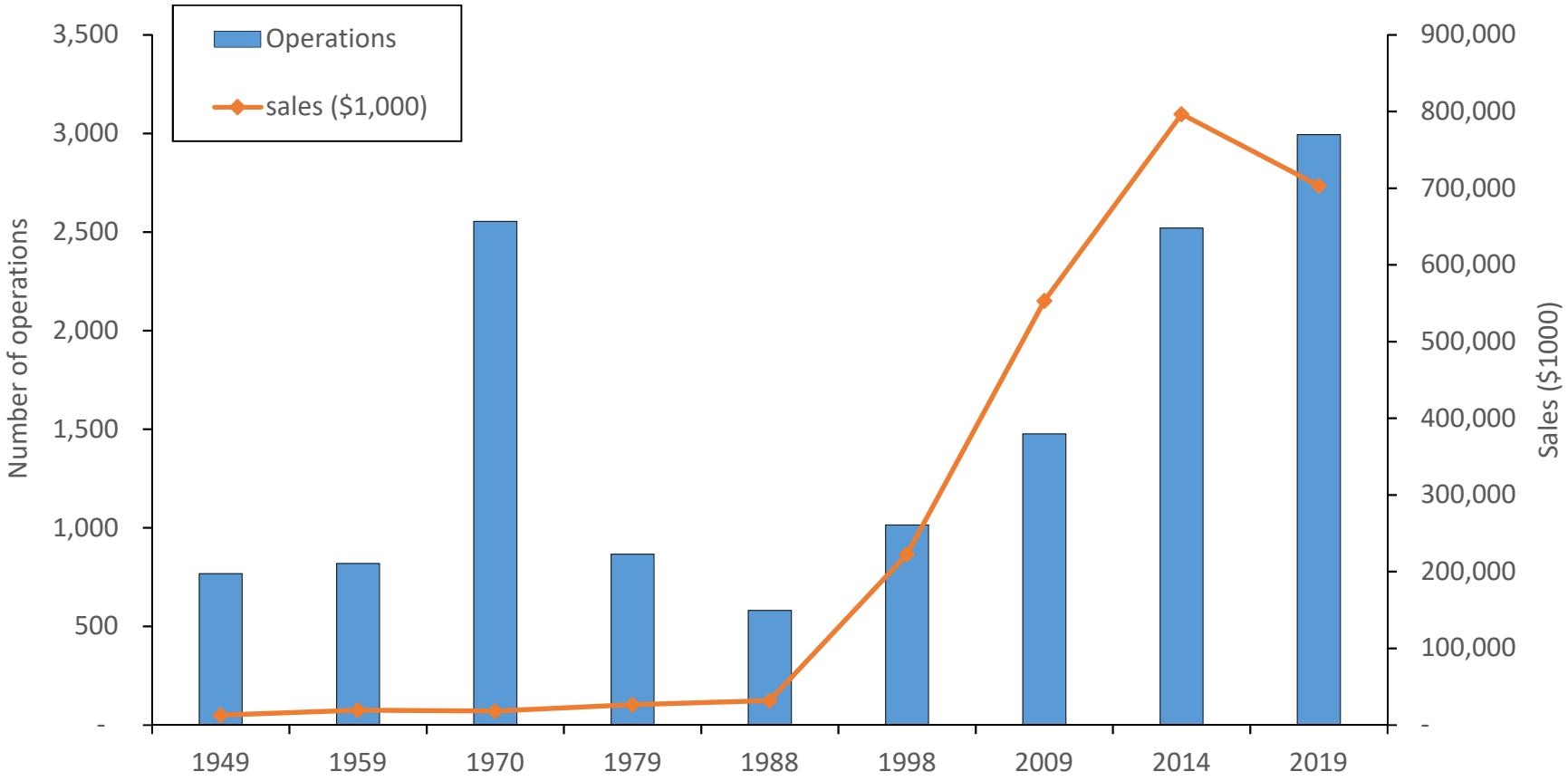
Citrus production continues to decline



F = forecast.
Source: USDA, National Agricultural Statistics Service, *Crop Production*, March 2022 issue, and *Citrus Fruit Summary*, various issues.

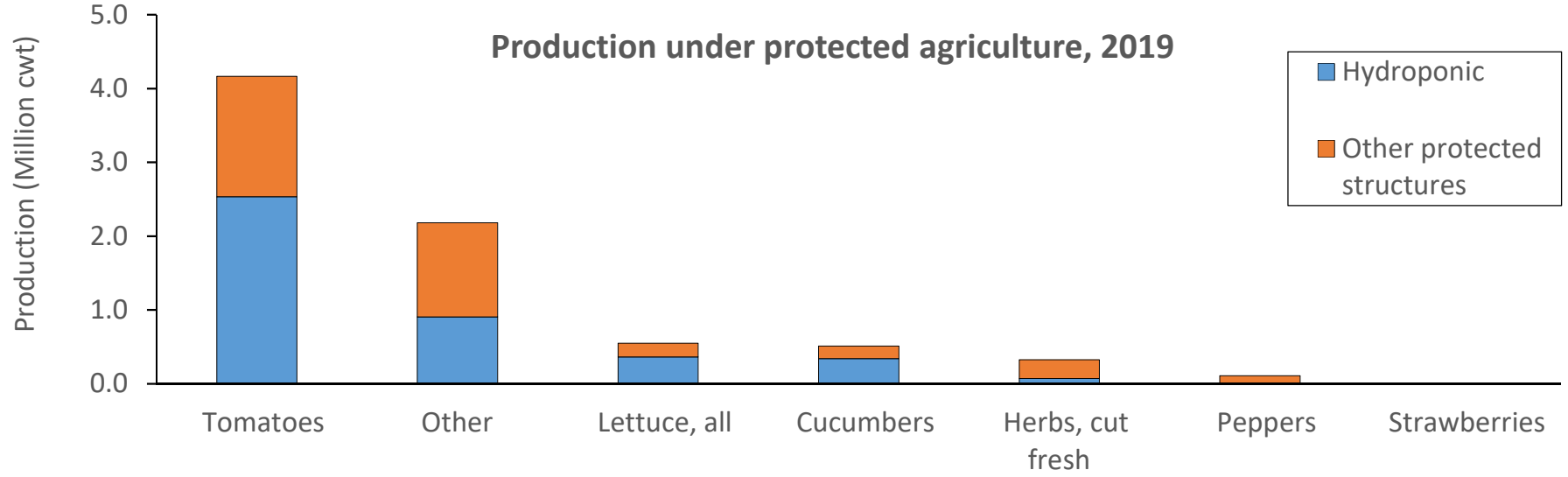
Source: USDA-ERS. Fruit and Tree Nuts Outlook, 2022.

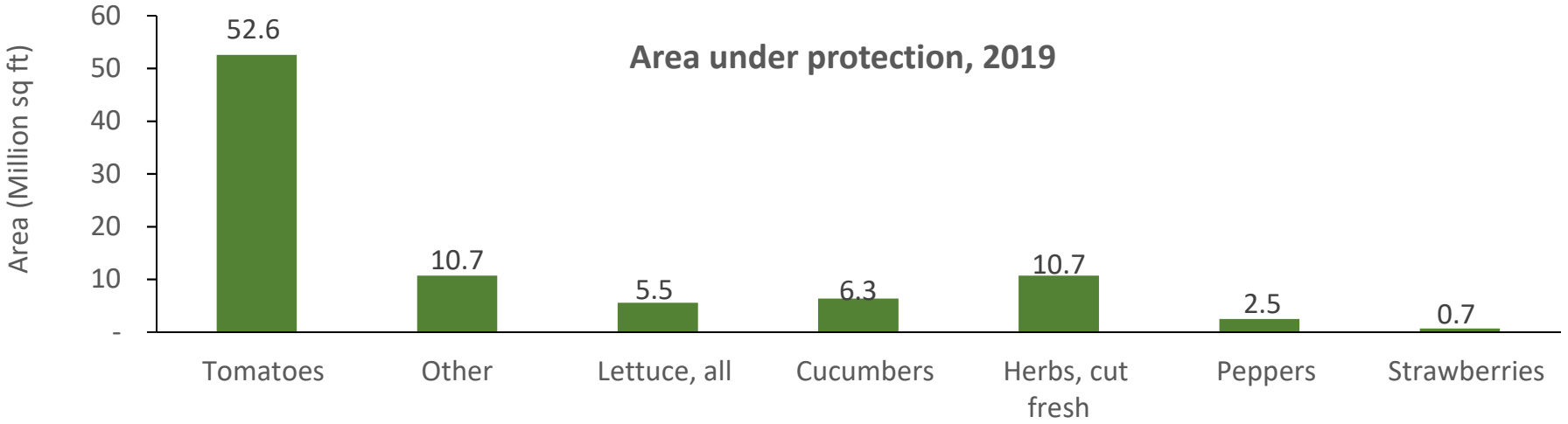
Food crop production under protected agriculture have risen over the years



Source: USDA NASS. 2019 Census of Horticultural Specialties.

Area and production under protected agriculture





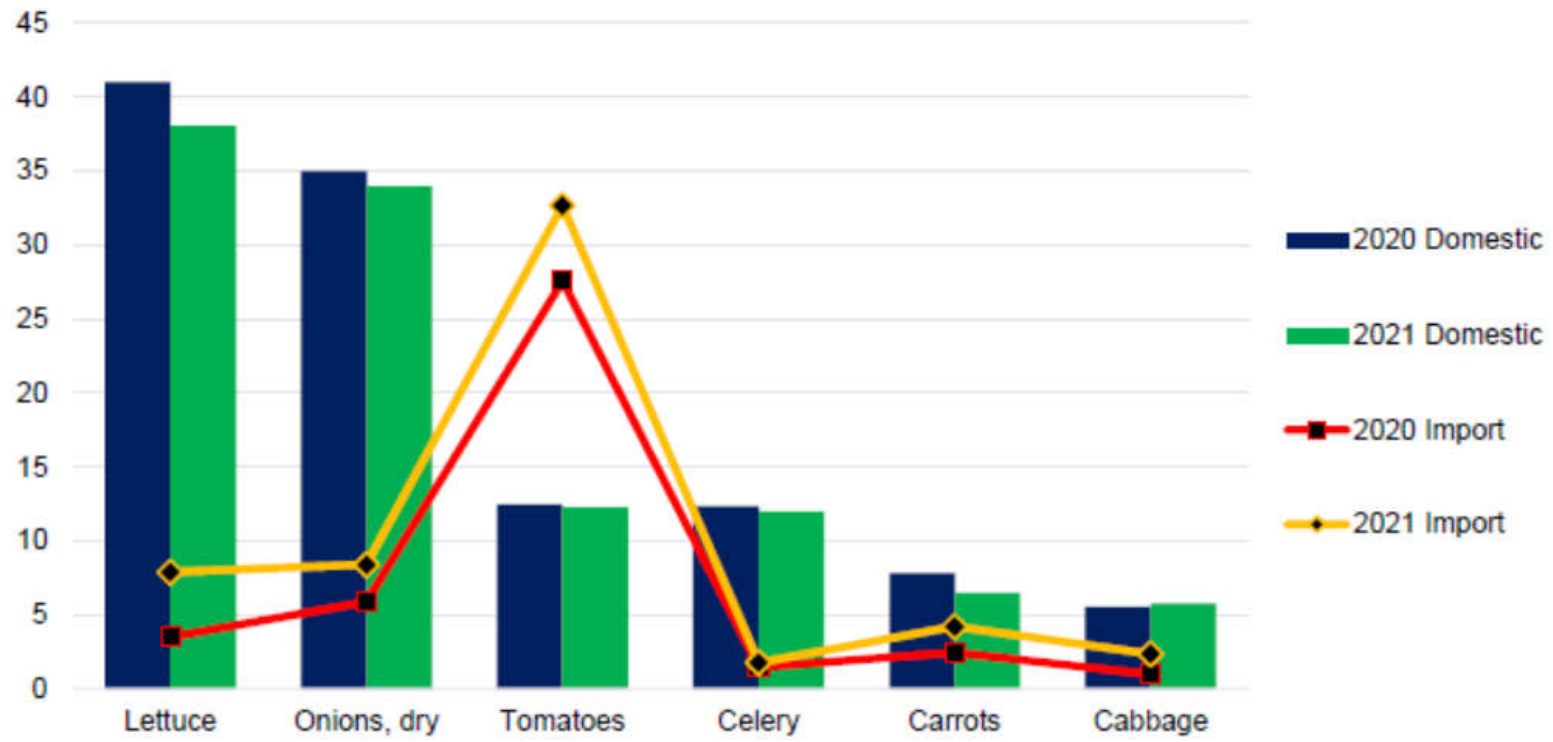
Source: USDA NASS. 2019 Census of Horticultural Specialties.

Imports

Domestic supply of major vegetable crops has declined, while imports have increased

Selected domestic and import fresh market vegetable shipments, January–September, 2020–21

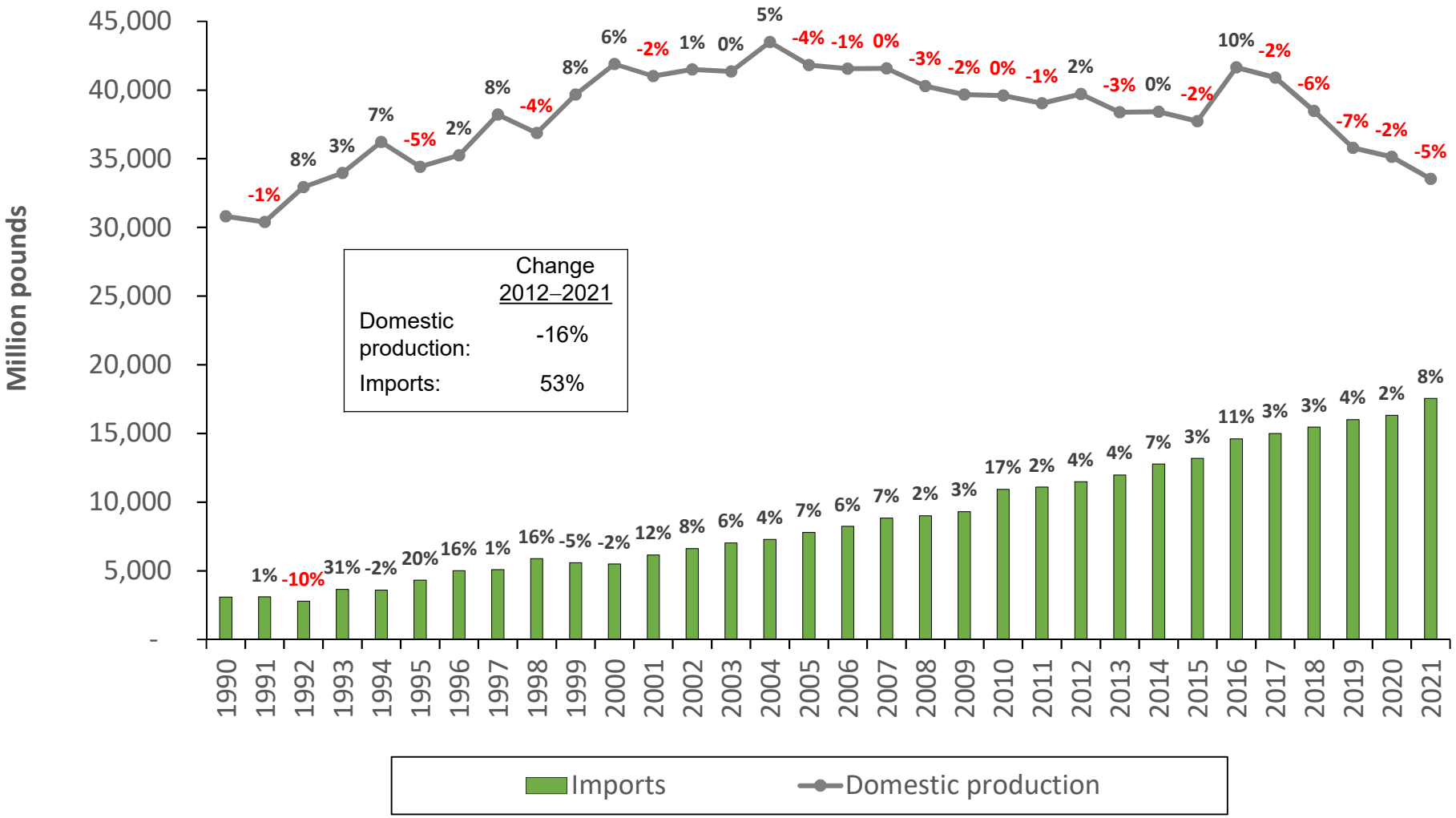
Volume (10 million pounds)



Note: January–September represents year-to-date (YTD) shipping movement.
Source: USDA, Agricultural Marketing Service, Fruit and Vegetable Market News, *Movement Reports*.

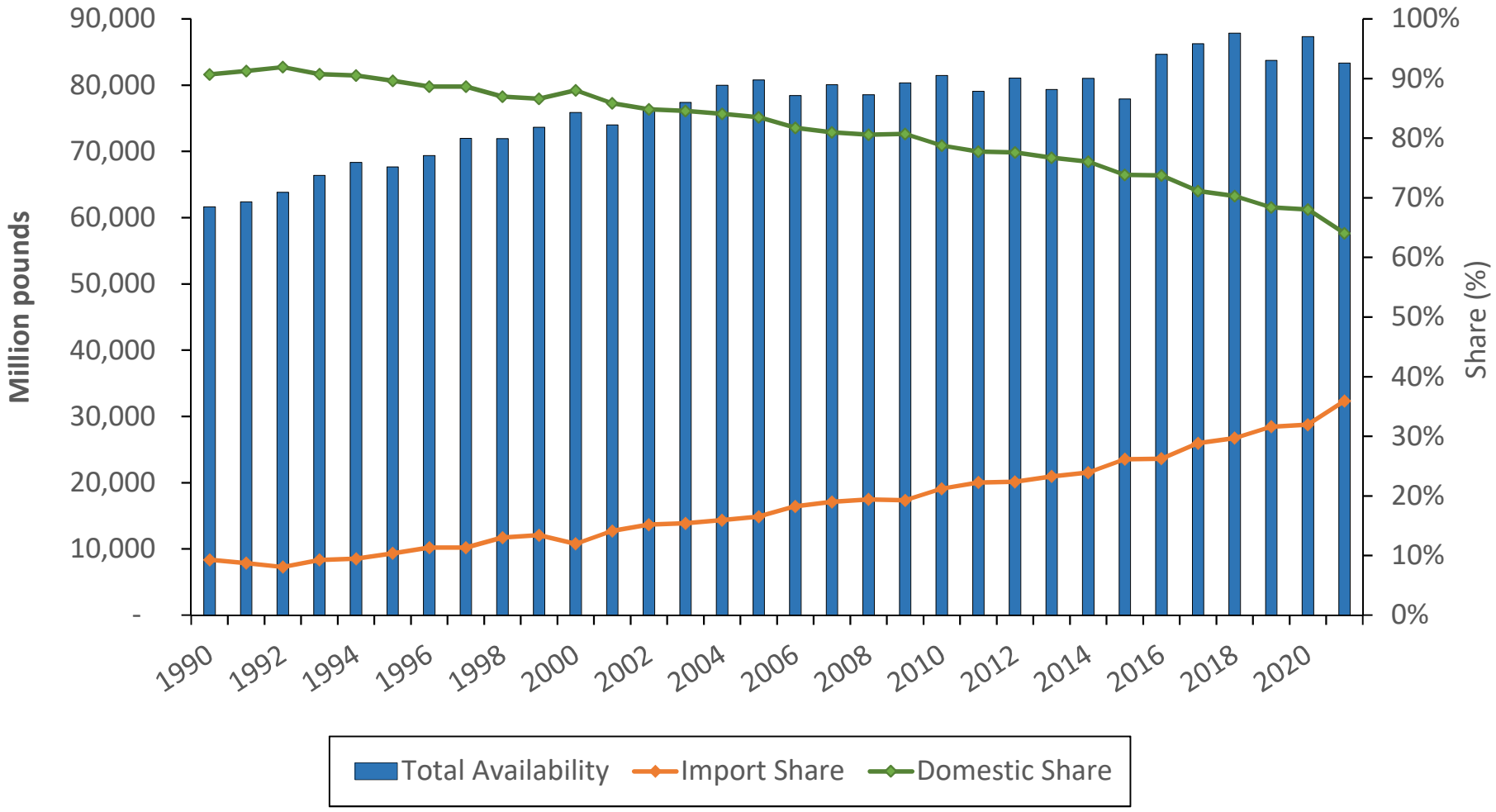
Source: USDA-ERS.

Fresh vegetable production and import volumes (YoY % changes)



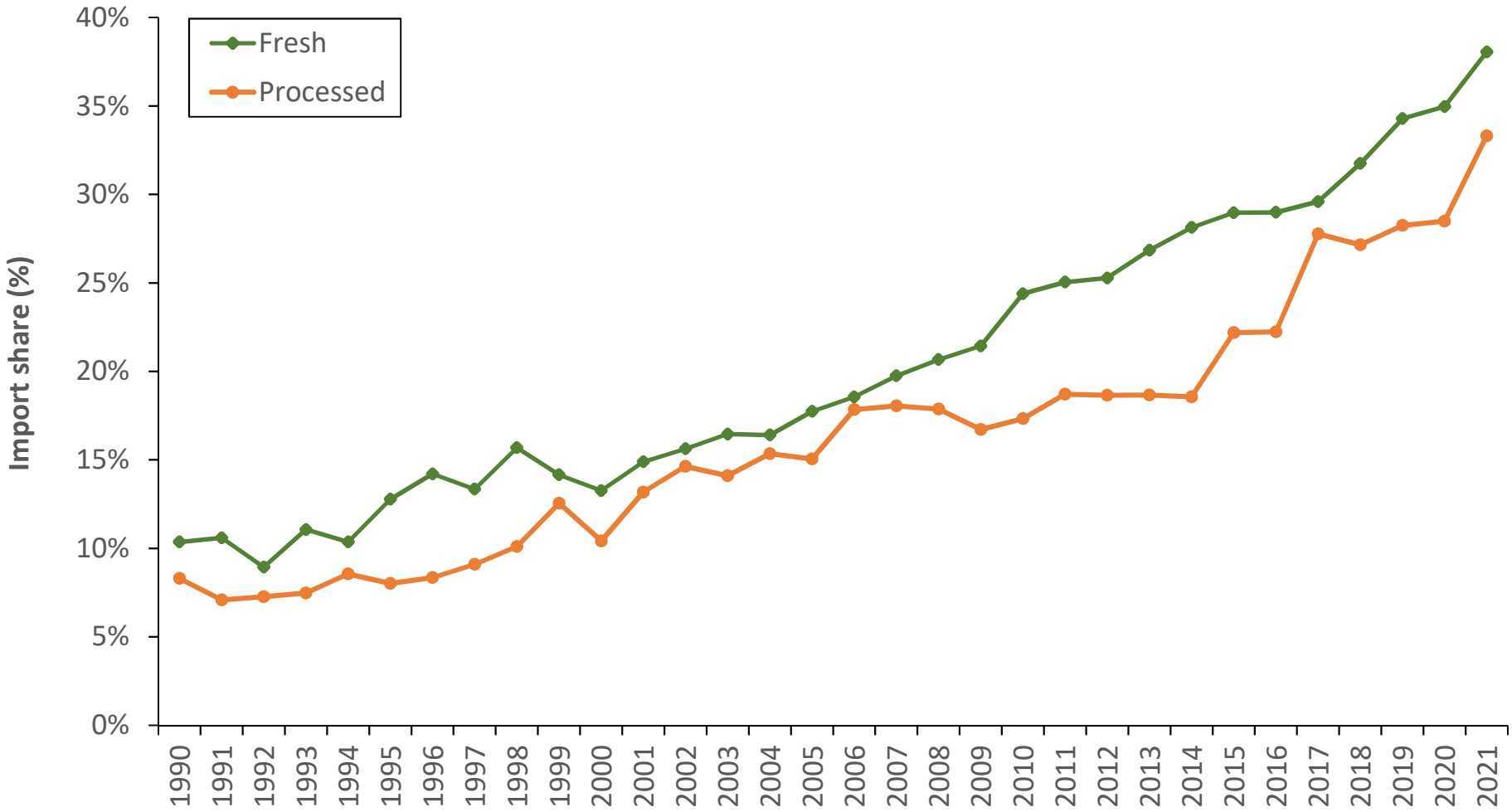
Source: USDA-ERS. Vegetables and Pulses Yearbook, 2022.

Imports and domestic production share of vegetable availability



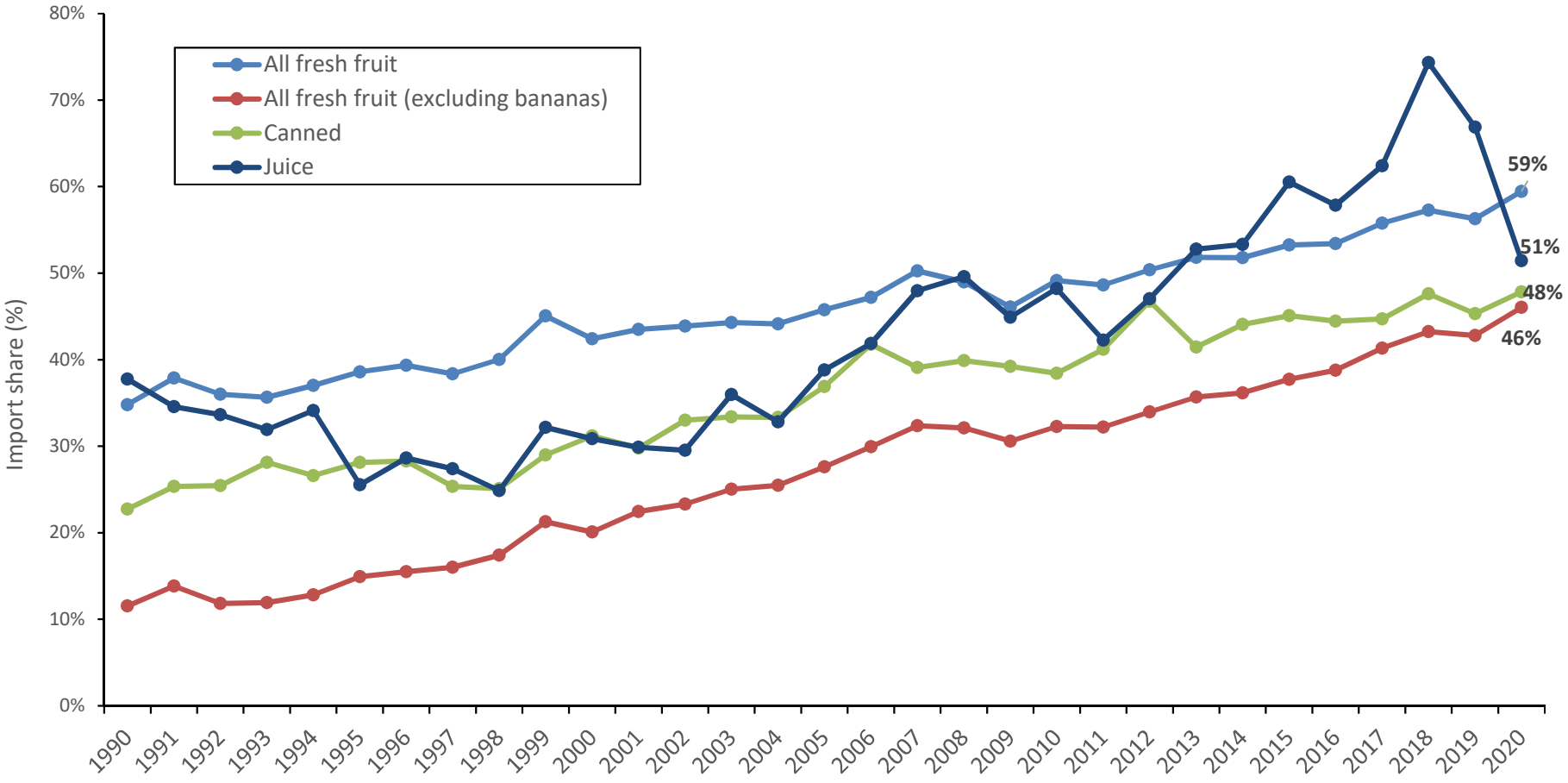
Source: USDA-ERS. Vegetables and Pulses Yearbook, 2022.

Import share of fresh and processing vegetable availability



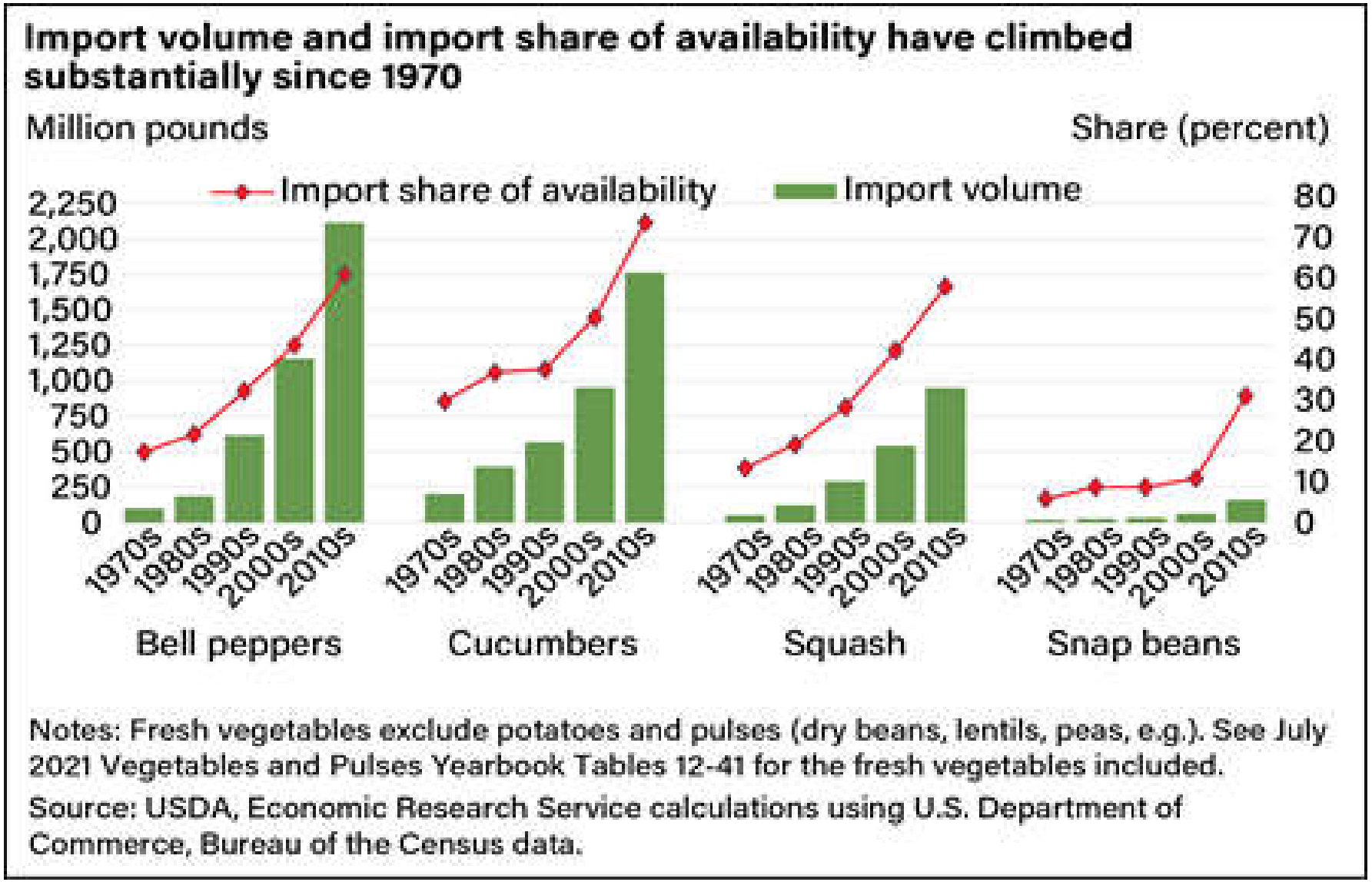
Source: USDA-ERS. Vegetables and Pulses Yearbook, 2022.

Imports share of domestic fresh fruit disappearance



Source: USDA-ERS. Fruit and Tree Nuts Yearbook, 2021.

Imports of major crops have significantly increased

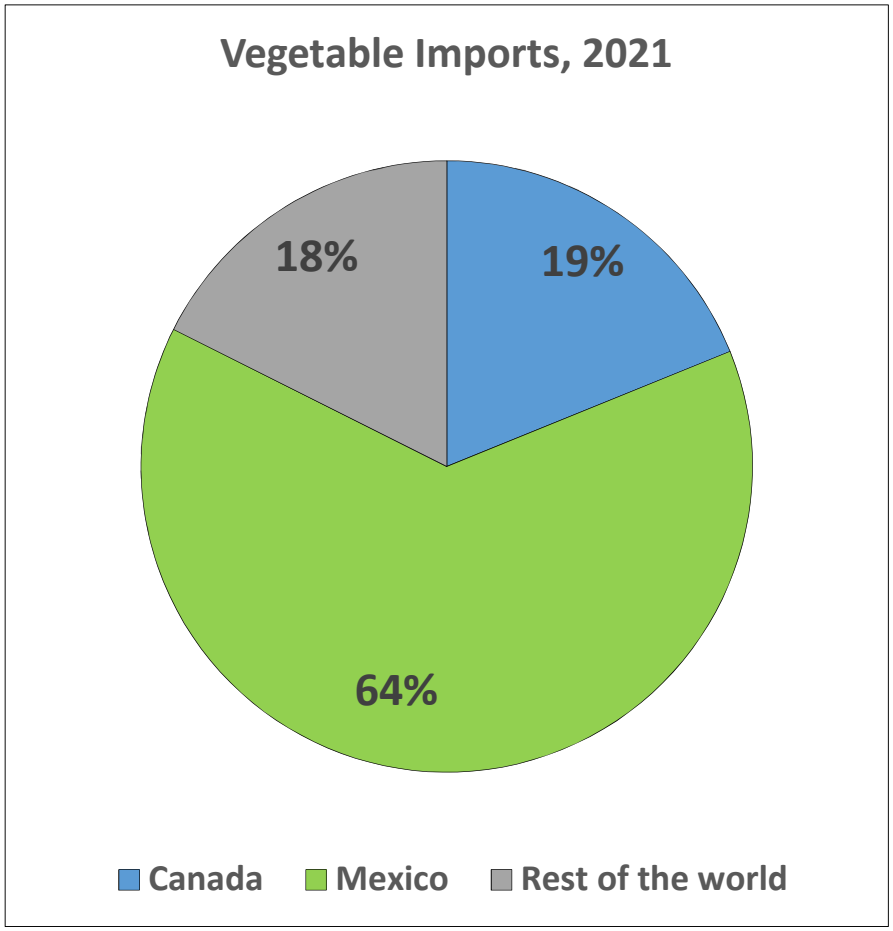


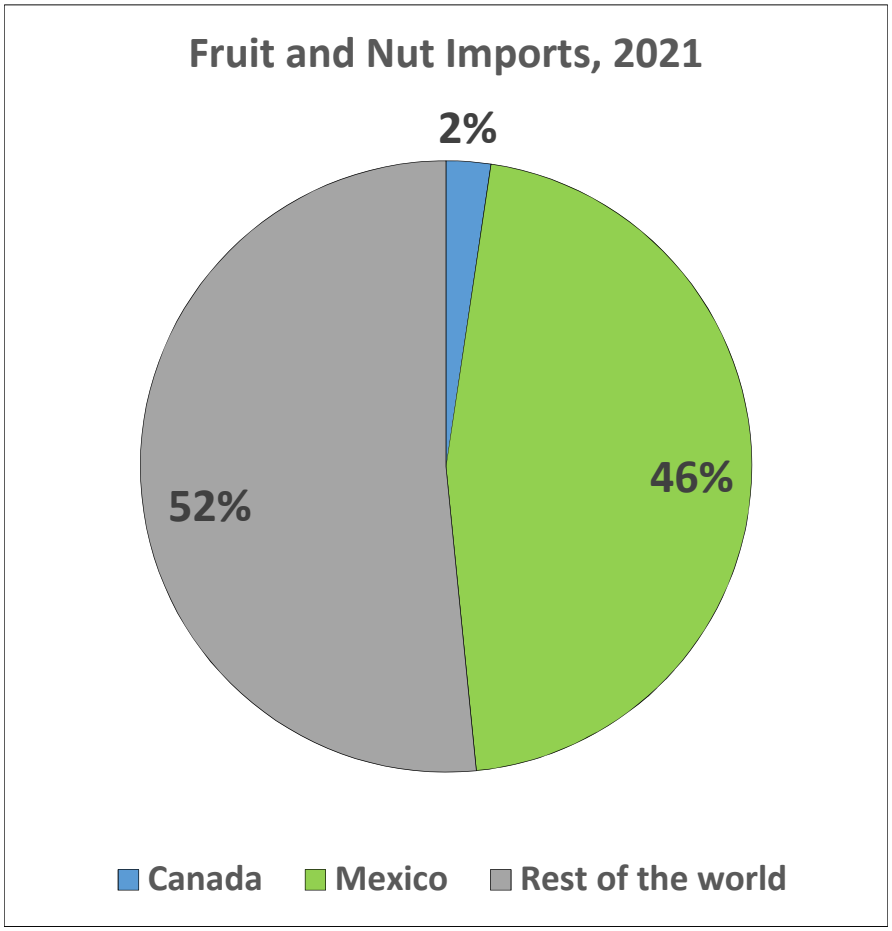
Source: USDA-ERS. Vegetables and Pulses Outlook, April 2021.

Commodity	2018	2019	2020	2021	Change 2020-21	
			Million Pounds			
Tomatoes, all	4,092	4,023	4,053	4,266	5	
Cucumbers	2,081	2,145	2,193	2,315	6	
Peppers, bell	1,535	1,613	1,667	1,843	11	
Onions	1,301	1,253	1,304	1,555	19	
Squash	1,130	1,206	1,210	1,221	1	
Peppers, chile	994	957	970	1,098	13	
Lettuce, all	617	789	821	931	13	
Potatoes, excluding seed	911	763	927	892	-4	
Asparagus	568	572	586	665	13	
Broccoli	423	493	542	553	2	
Carrots	494	504	467	527	13	
Artichokes	346	357	321	335	4	
Cabbage	253	285	279	291	4	
Garlic	337	277	274	283	3	
Brussels sprouts	187	194	236	246	4	
cauliflower	172	231	218	238	9	
Celery	132	244	220	230	5	
Snap beans	192	201	218	228	5	
Mushrooms	151	168	179	195	9	
Sweet corn	118	127	160	194	21	
Eggplant	175	175	186	191	3	
Okra	160	162	164	163	-1	
Pumpkin	77	92	122	106	-13	
Sweet potatoes	29	25	20	85	322	

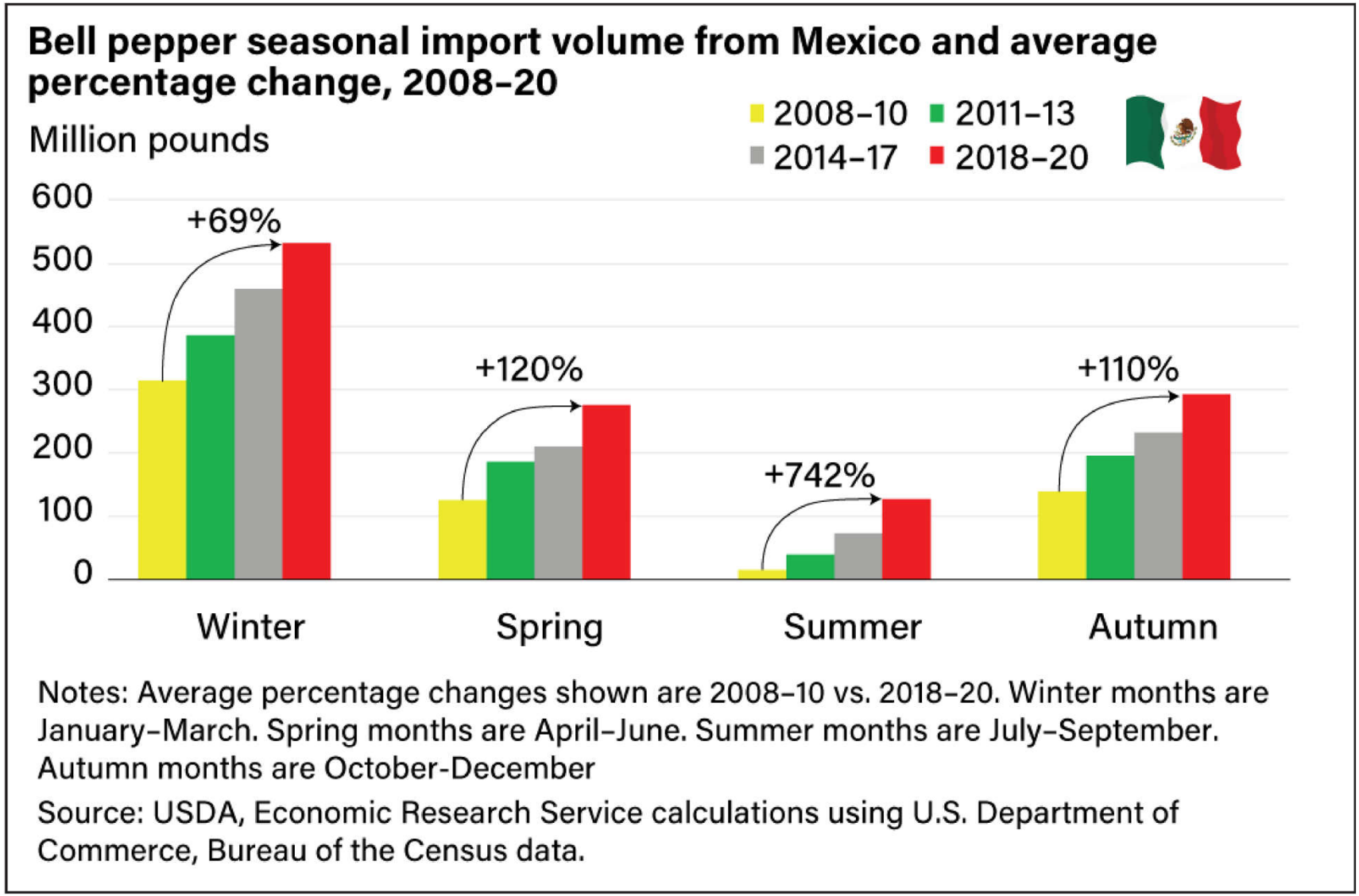
Source: USDA-ERS. Vegetables and Pulses Outlook, April 2022.

Most imports originate from Mexico and Canada



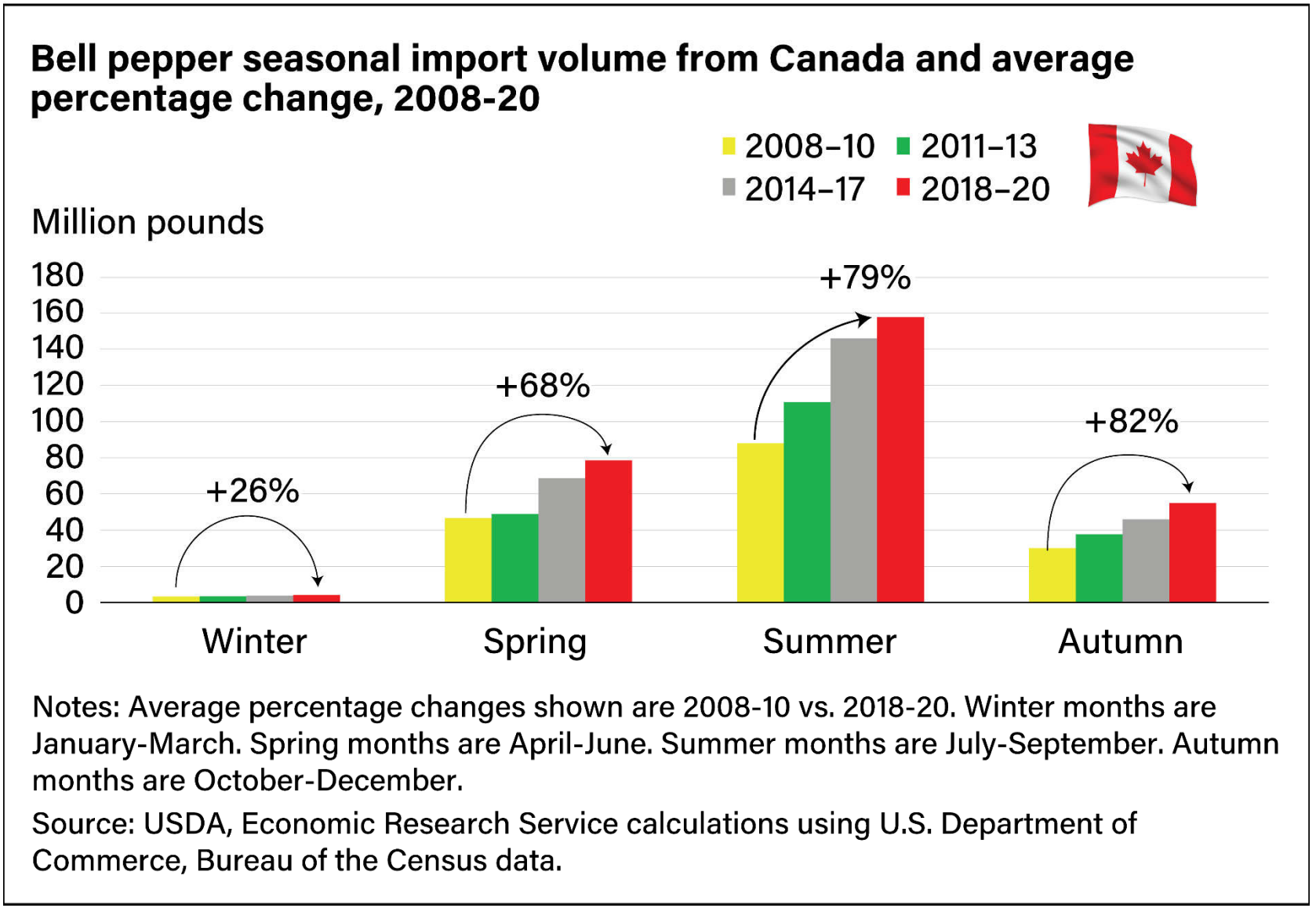


Import window continues to expand



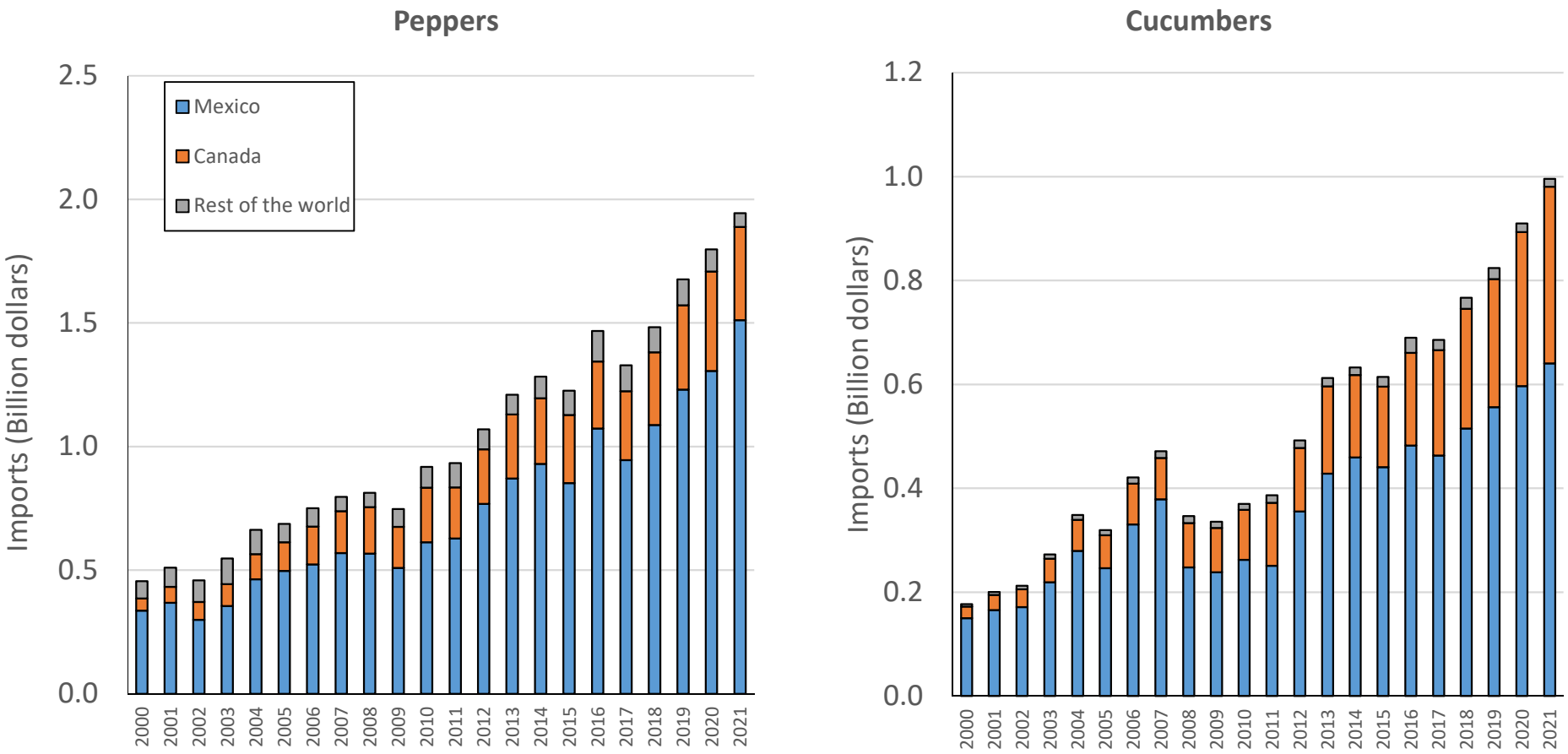
Source: USDA-ERS. Vegetables and Pulses Outlook, April 2021.

Import window continues to expand



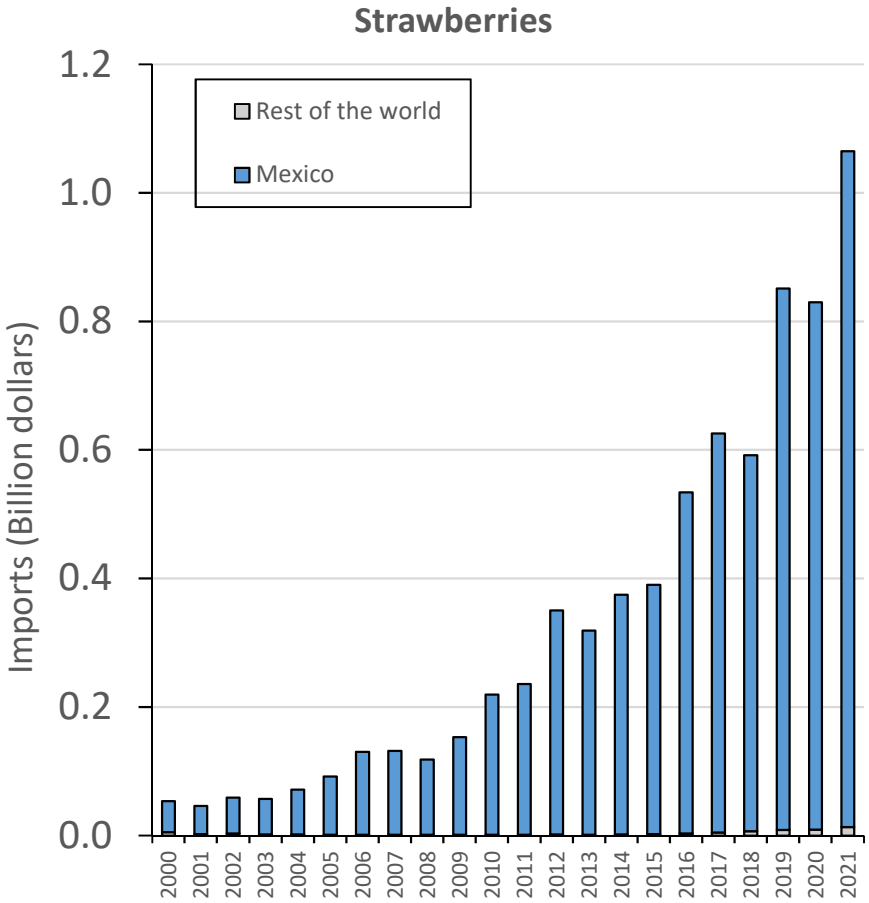
Source: USDA-ERS. Vegetables and Pulses Outlook, April 2021.

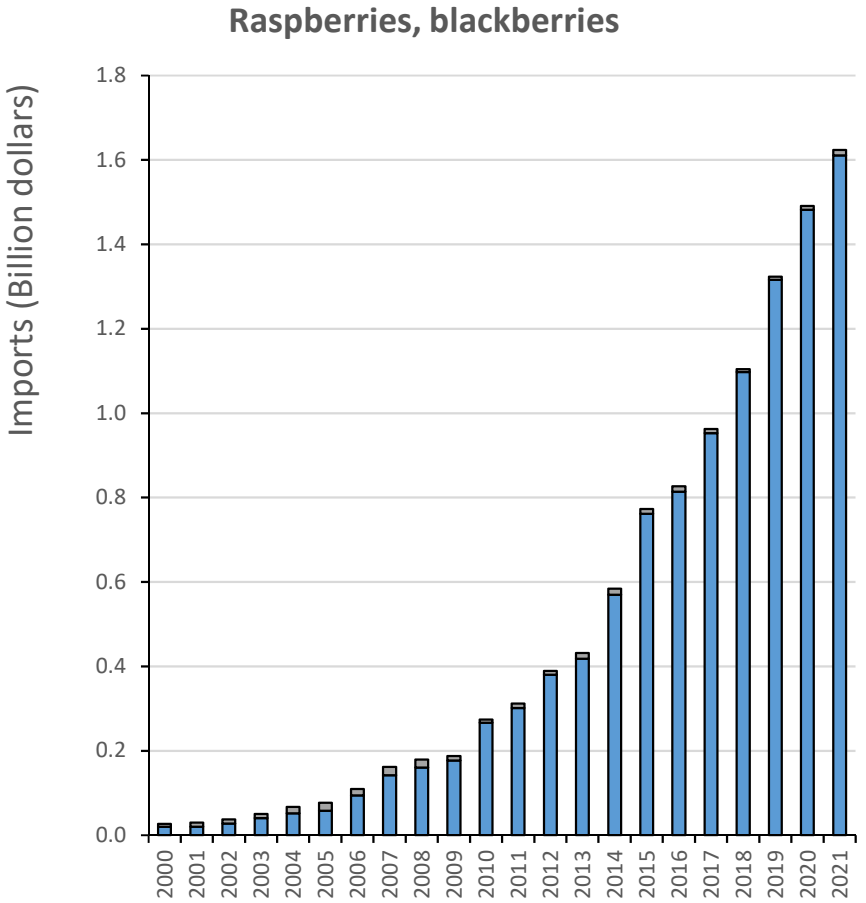
Imports of peppers and cucumbers



- Industry concerns regarding U.S. imports of certain seasonal perishable products → trade investigations.
- Imports of peppers increased by 108% during the last decade (2011-2021), while cucumbers imports increased by 157%.

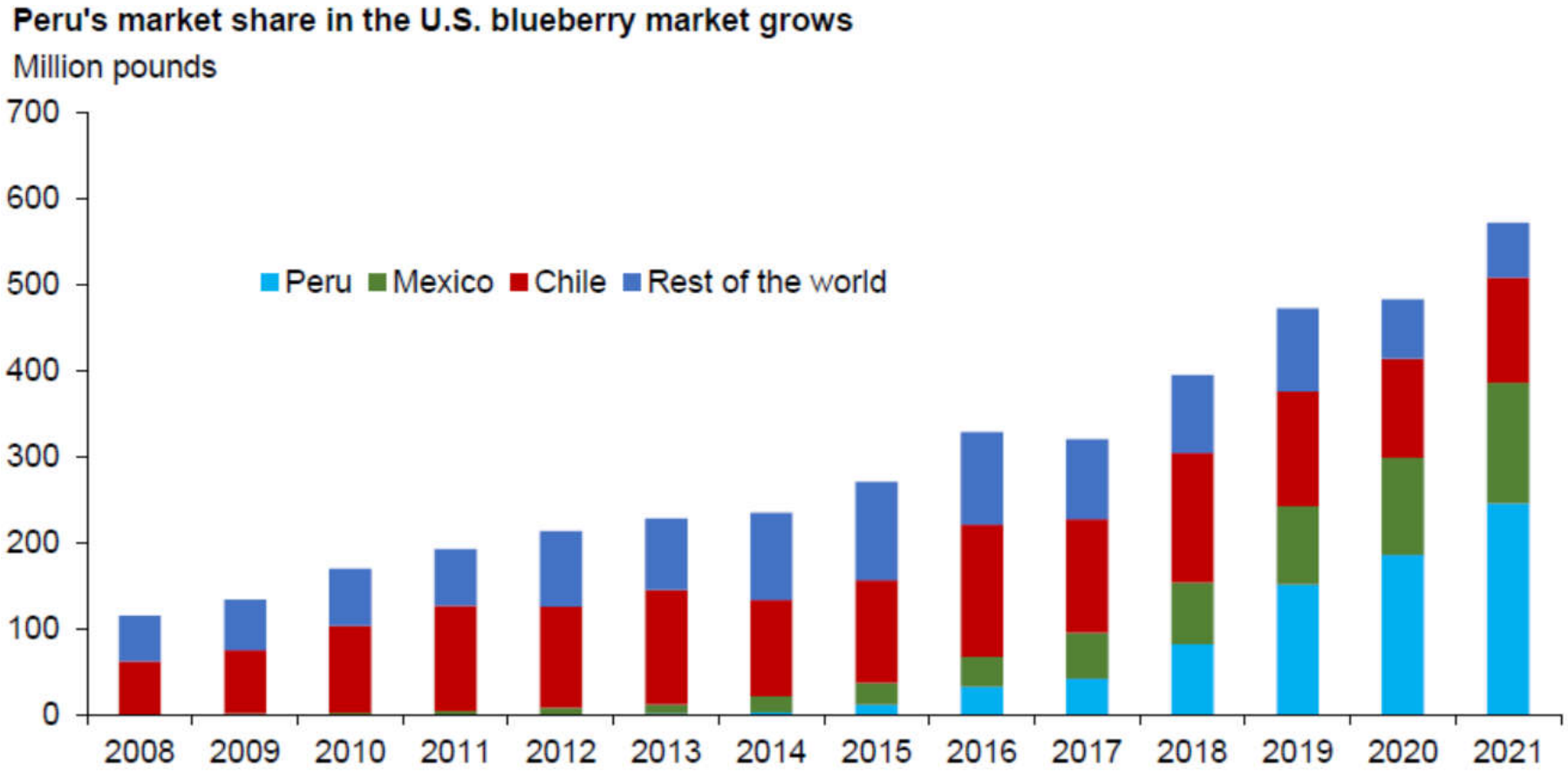
Imports of berries





- Industry concerns regarding U.S. imports of certain seasonal perishable products → trade investigations.
- Imports of strawberries increased by 351%% during the last decade (2011-2021), while raspberries & blackberries imports increased by 421%.

Imports of blueberries have increased, with imports from Peru and Mexico playing an important role

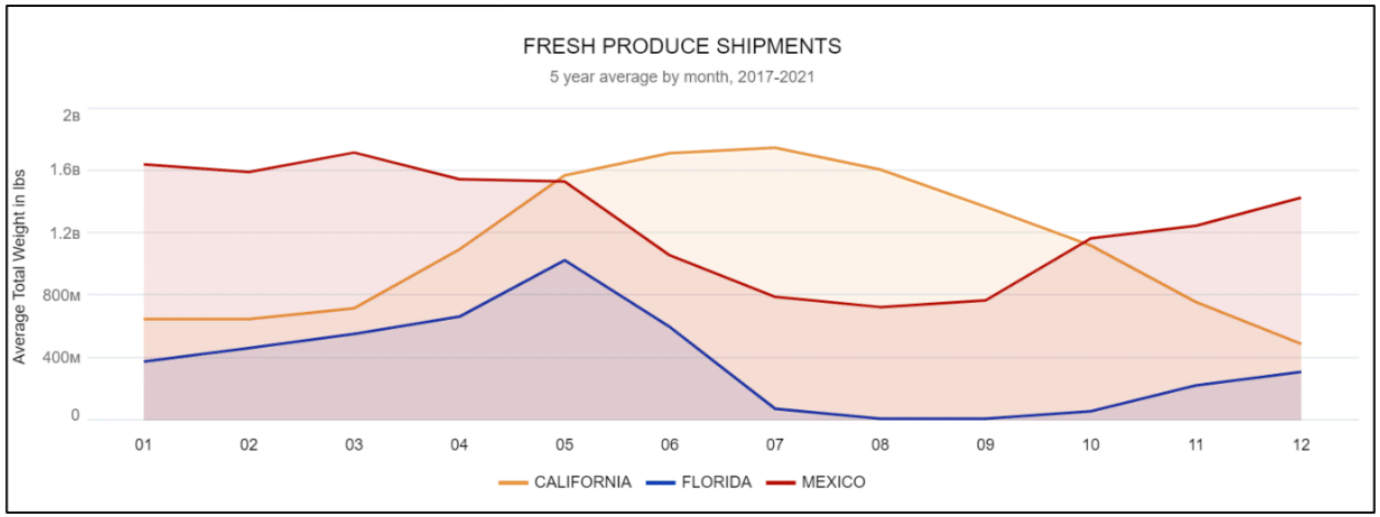


Source: U.S. Department of Commerce, Bureau of Census data.

Florida requests an investigation into imports of seasonal and perishable products

- Mexico's Ag-Exports Impacts on Florida Agriculture Report:
  - Between 2000-2021, specialty crop imports from Mexico increased **596%**
  - Resulted in 10-20% in economic losses for producers in Florida

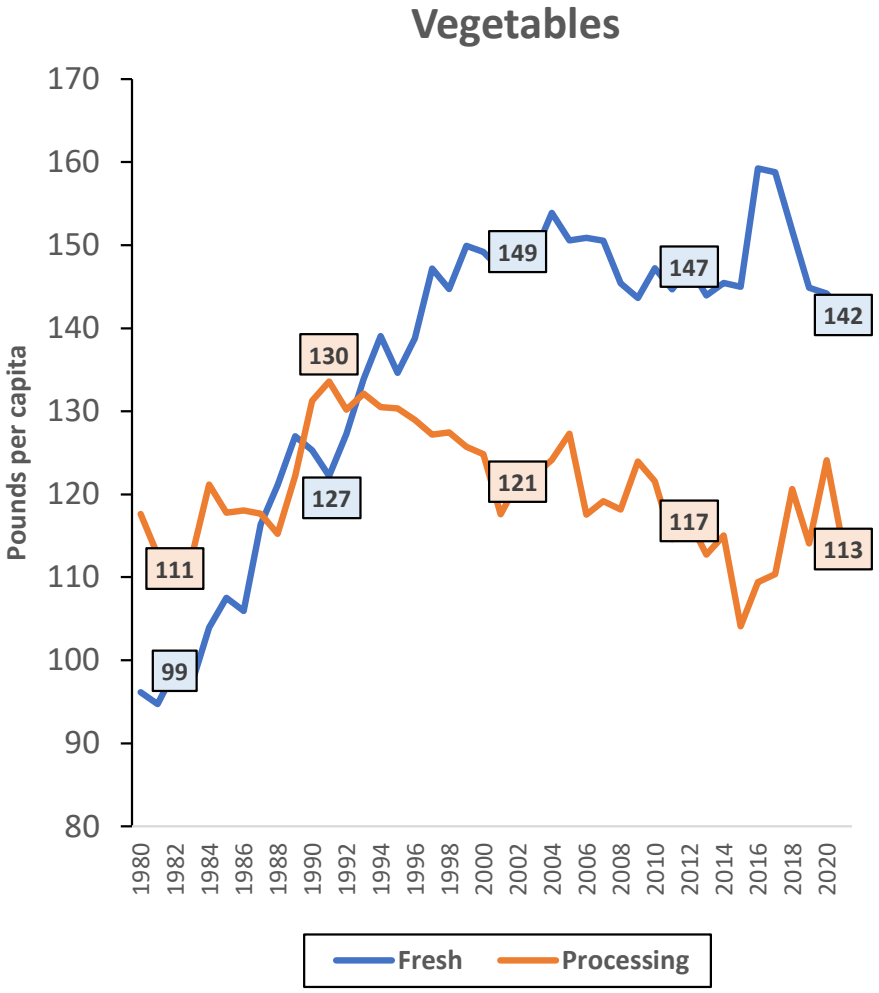
Commodity	Florida Market share loss	Mexico Market share gain	Change in US total supply
Bell peppers	73%	110%	56%
Tomatoes, Rounds	54%	99%	-8%
Strawberries	32%	239%	179%
Blueberries	68%	1,197%	2,954%
Cucumbers	72%	23%	117%
Squash	59%	9%	127%

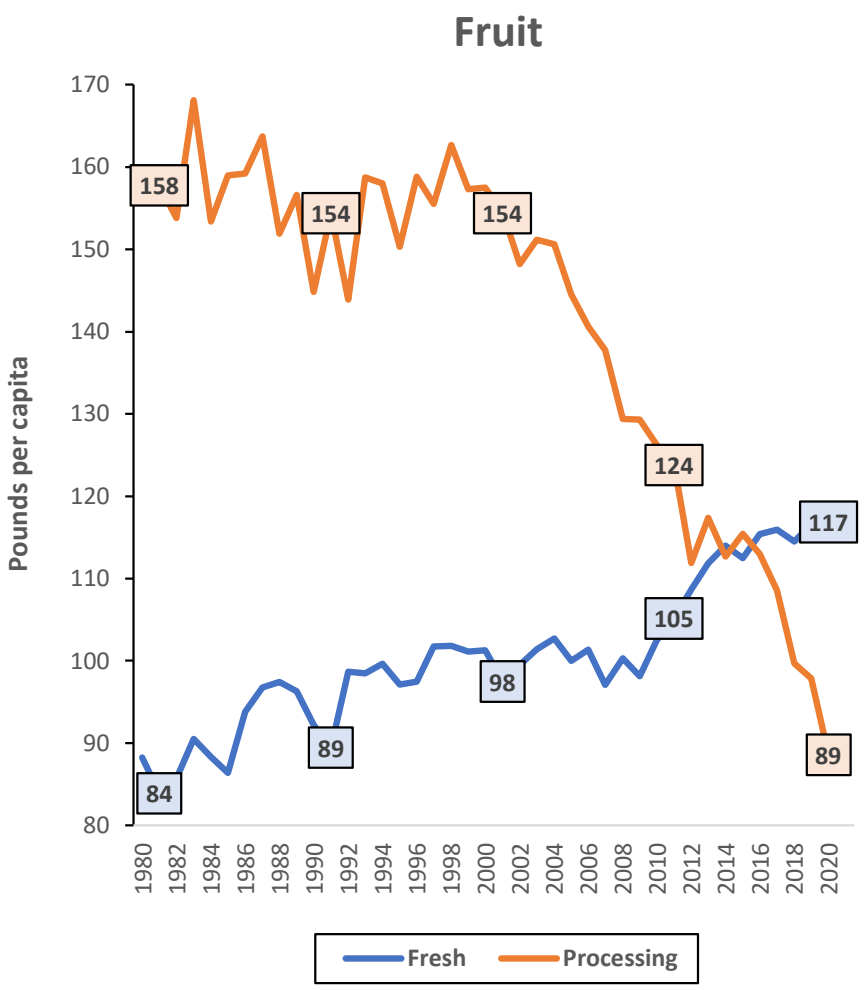


Source: Florida Department of Agriculture. Subject: Mexico's Ag-Exports Impacts on Florida Agriculture. 2022.

Industry trends, challenges, and opportunities

Per-capita availability of processed fruit and vegetables is trending down





Source: USDA-ERS. Vegetables and Pulses Yearbook, 2022 & Fruit Yearbook, 2021

Challenges

- Glowers under increased pressure
- Retailers increasingly demanding sustainability practices from growers
- Food safety: FSMA – Produce Rule and Food Traceability Proposed Rule
  - Food Traceability List: cucumbers, fresh herbs, leafy greens, melons, peppers, tomatoes, tropical tree fruits, fresh-cut fruit and vegetables

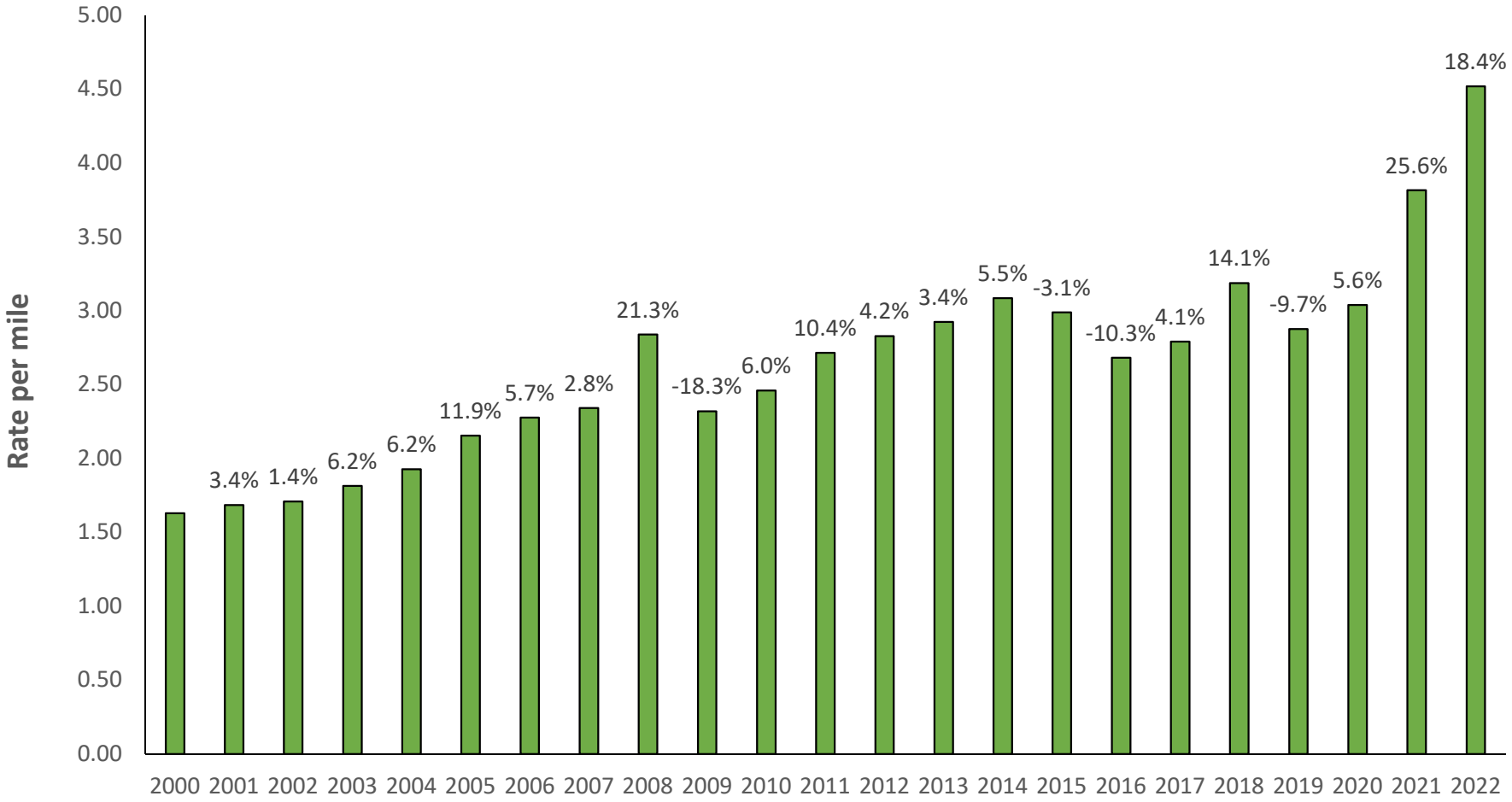
Challenges

- Growing most expensive crop ever
  - Moving to crops requiring less input
- Transportation challenges
  - Risks for delays and product rejections

Suppliers, How Will This Year's Prices Compare to Last Year's?	2022 Responses	2021 Responses
More than 5% higher	72%	20%
Between 1% and 5% higher	17%	43%
About the same	7%	34%
Between 1% and 5% lower	4%	3%
More than 5% lower	0%	0%

Source: American Vegetable Grower® magazine's 2022 State of the Industry survey.

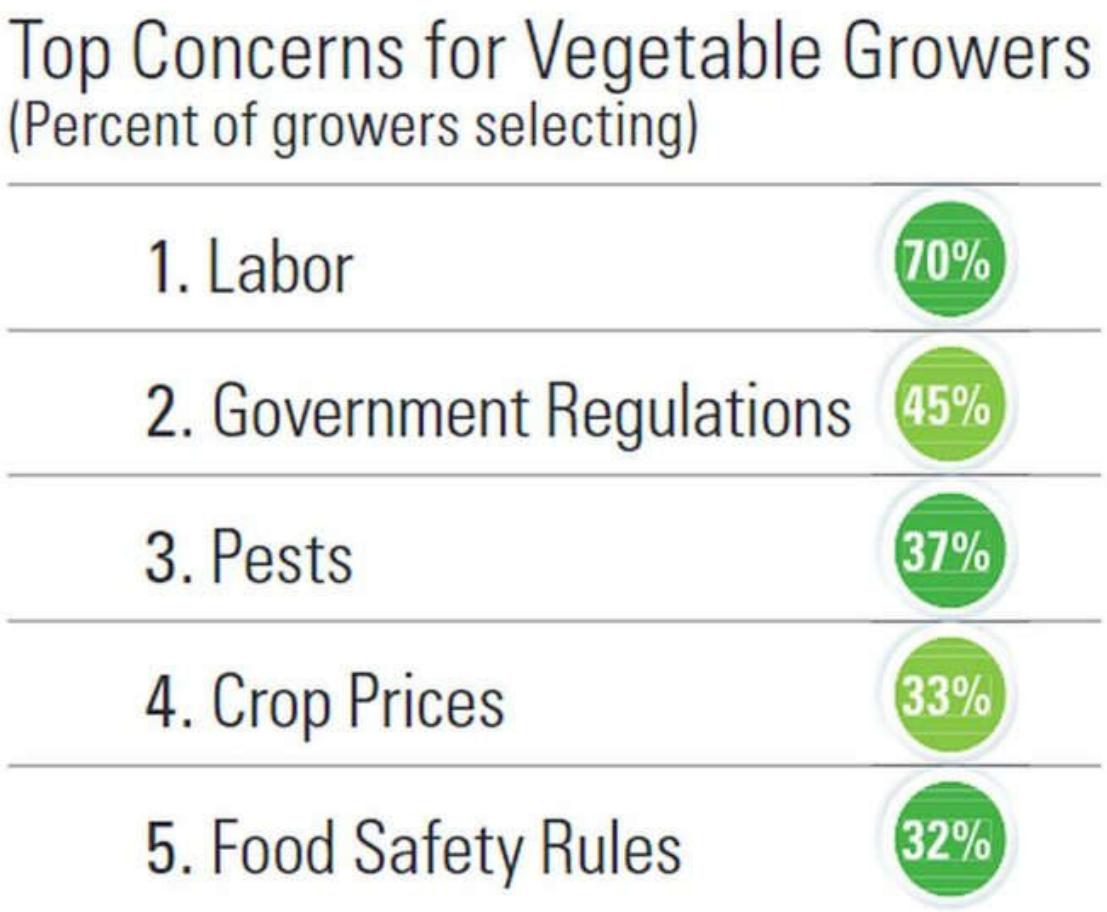
Refrigerated truck rates (YOY % change)



Source: USDA AMS. 2022 Vegetables and Pulses Outlook.

Produce growers' concerns

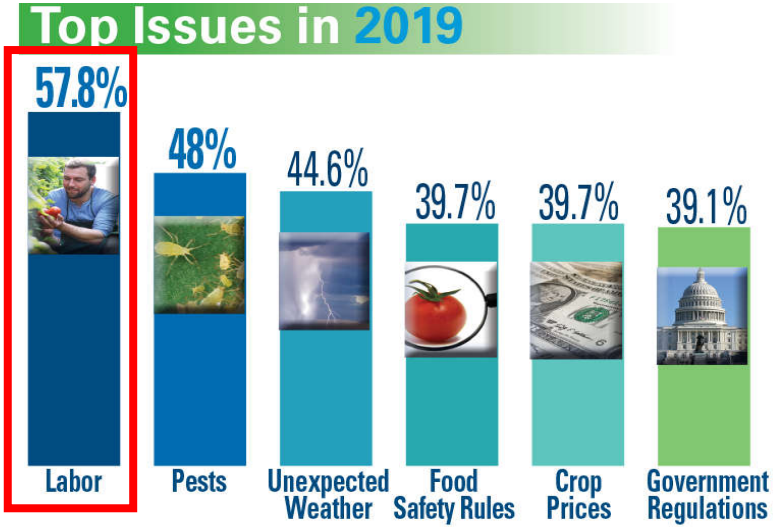
American Vegetable Grower, 2022 State of the Vegetable Industry Survey



Source: American Vegetable Grower. 2022 State of the Vegetable Industry Survey.

Source: American Vegetable Grower. 2022 State of the Vegetable Industry Survey.

Source: American Vegetable Grower. 2020 State of the Vegetable Industry Survey.



Source: American Vegetable Grower. 2019 State of the Vegetable Industry Survey.

Source: American Vegetable Grower. 2018 State of the Vegetable Industry Survey.

Challenges and opportunities

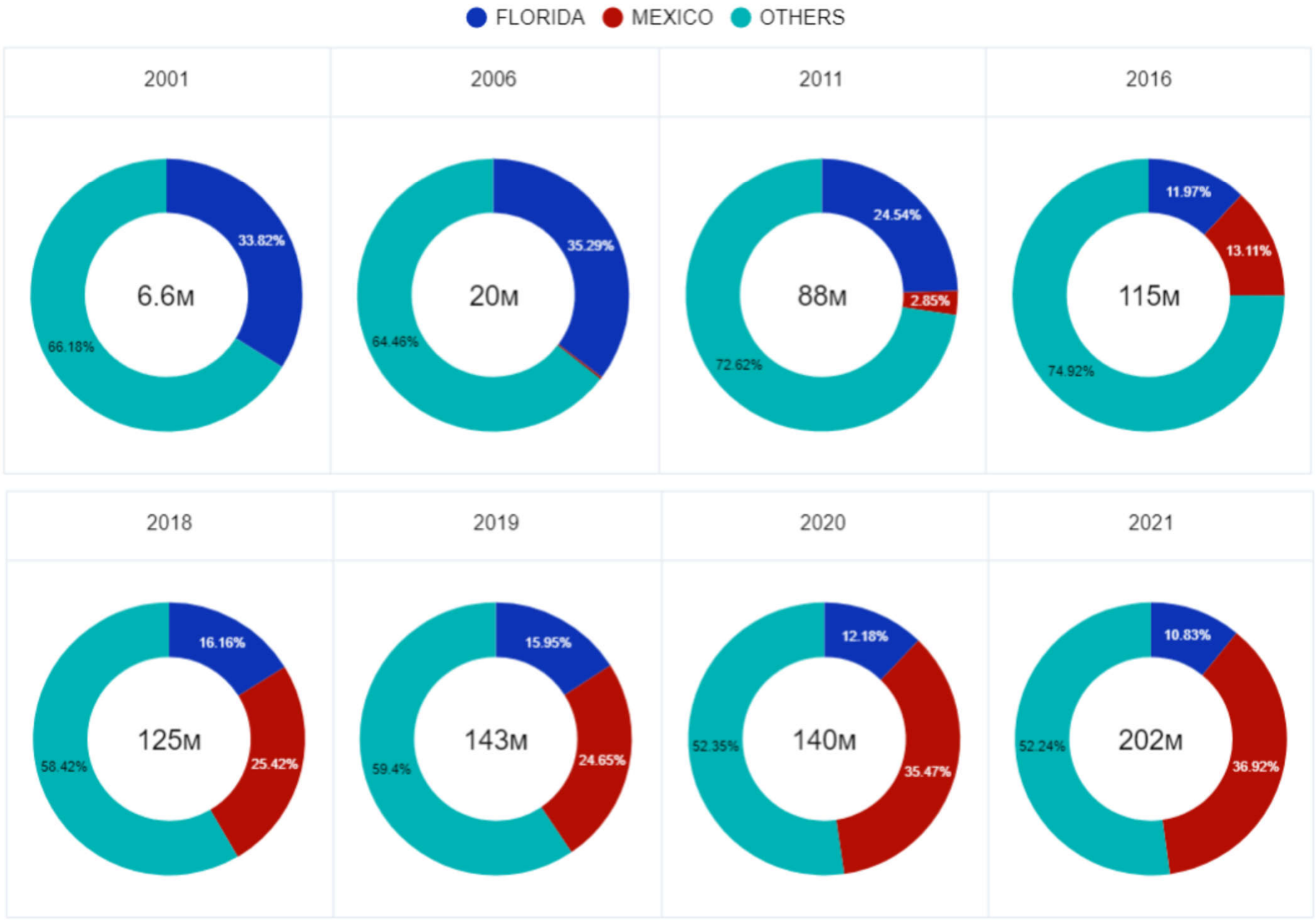
- Droughts and water supply availability
  - Issues in California
  - Implication for fresh produce supply
- Opportunity for Southern states?
  - Migrating specialty crops

Thank you!

Questions?

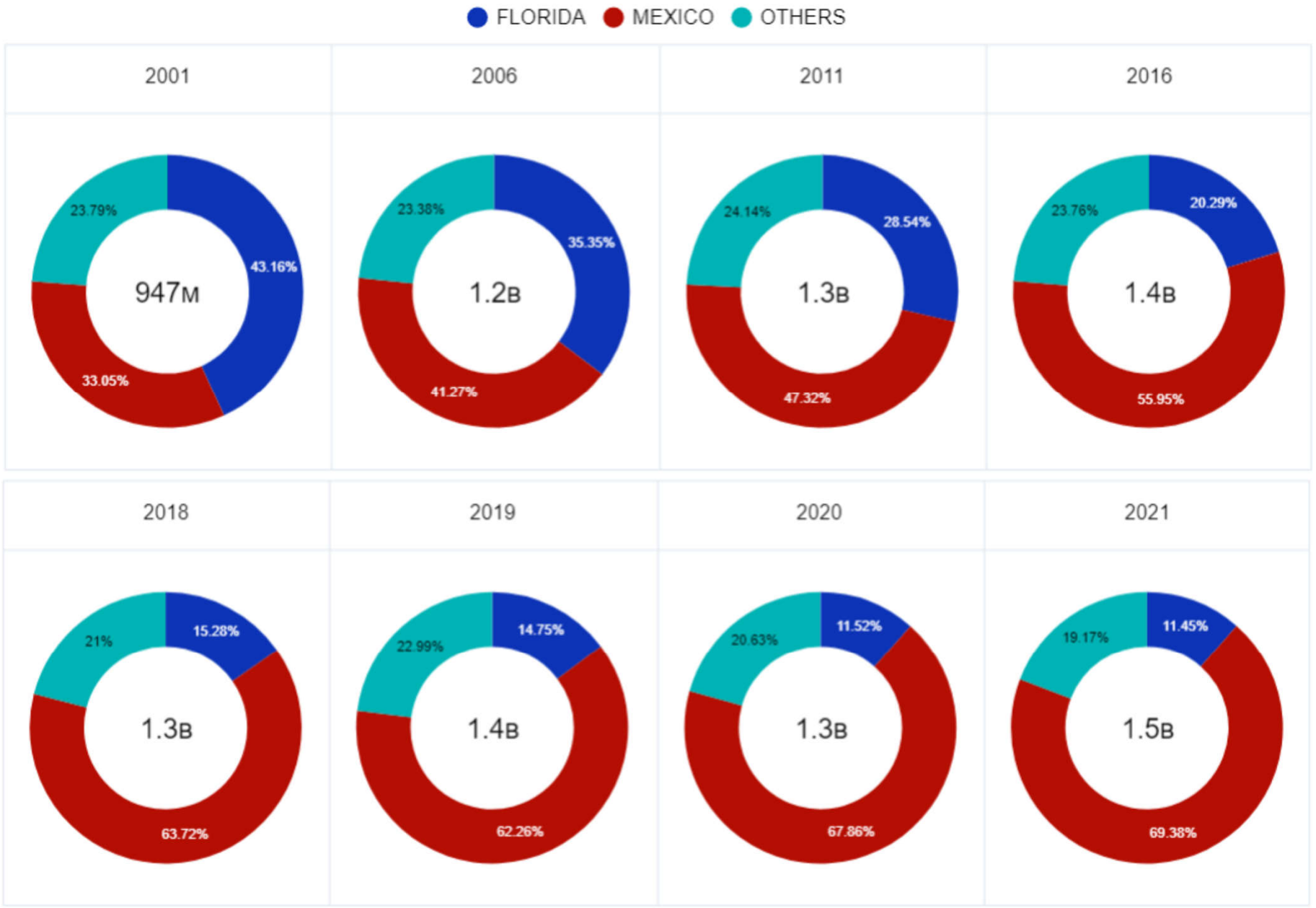
BLUEBERRIES MARKET SHARE

["March", "April", "May"]



PEPPERS BELL TYPE MARKET SHARE

["January","February","March","April","May","June","November","December"]



Inflation numbers are high for fruit and vegetables

August price up the most vs. July		
Category	August price chg. vs July	August Price chg. vs YA
Carbonated Beverages	5.3%	15.0%
Fresh Common Fruit	5.3%	8.3%
Ice Cream / Sherbet	3.7%	14.1%
Fresh Vegetables	3.4%	17.1%
Beef	3.3%	1.5%
Butter & Margarine	3.2%	30.0%

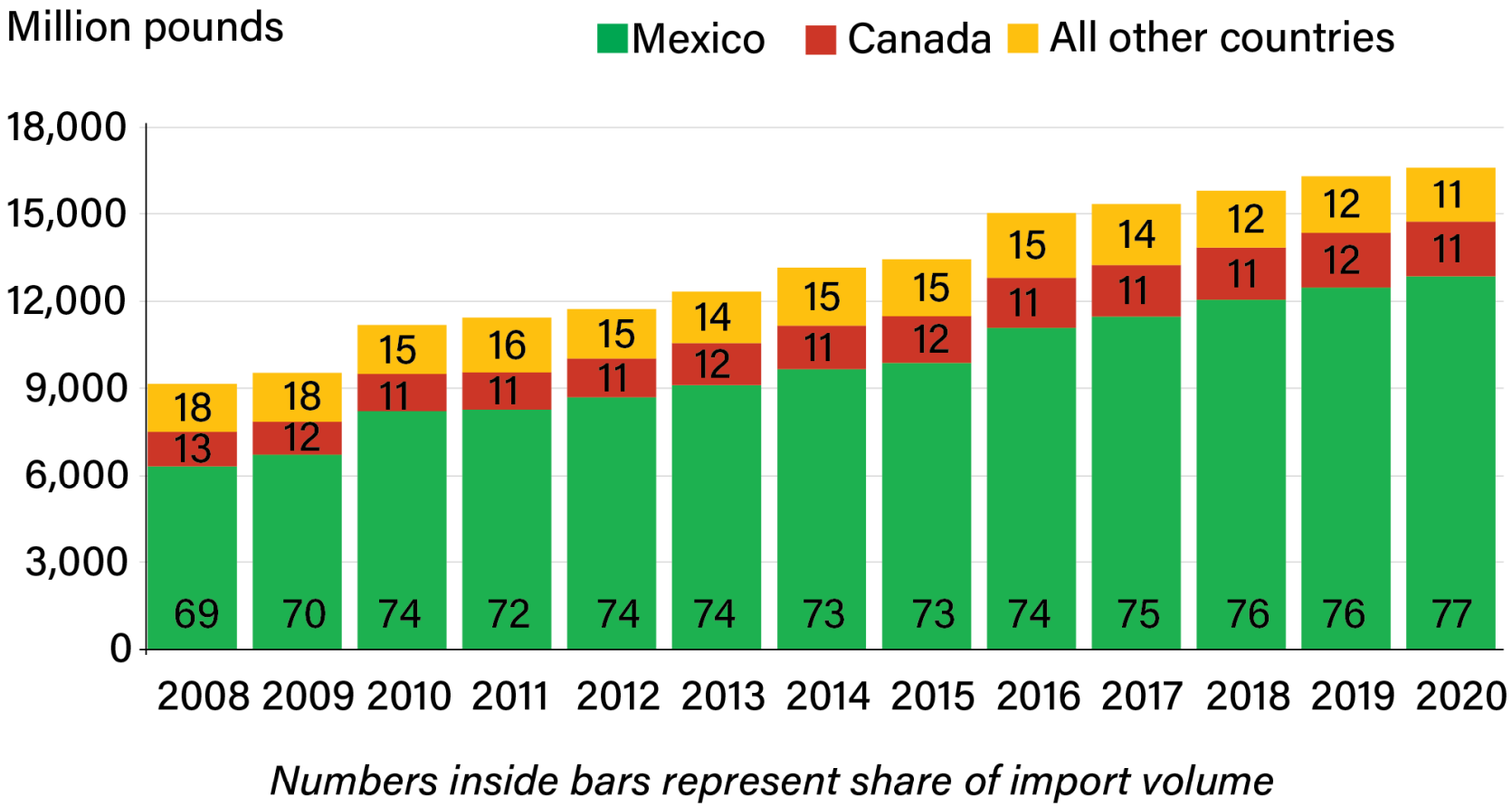
August down or close to flat vs. July		
Category	August price chg. vs July	August Price chg. vs YA
Tropical Fruit	-4.4%	16.6%
Citrus Fruit	-2.6%	12.3%
Frozen Breakfast Food	-0.5%	13.1%
Frozen Dinners & Entrees	0.0%	20.7%
Frozen Pizza	0.0%	17.7%
Coffee	0.3%	18.6

IRi

Note: Excludes any mix effects; Based on releasable UPCs. Source: IRI MULOC POS data ending 8/28/22. IRI Client Engagement

Source: IRI August 20222 Price Check: Tracking Retail Food and Beverage Inflation.

U.S. fresh vegetable import volume continues steady growth

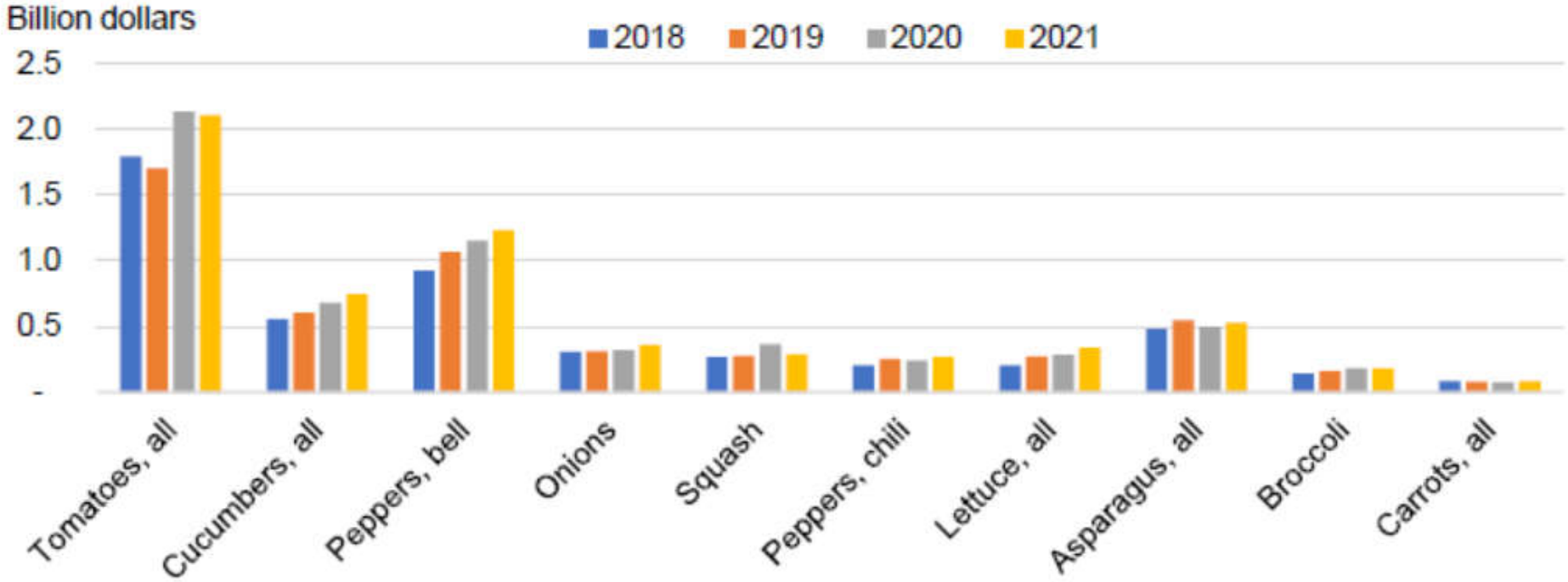


Numbers inside bars represent share of import volume

Notes: Fresh vegetables exclude potatoes and pulses (such as dry beans, lentils, peas, e.g.). See July 2021 Vegetables and Pulses Yearbook Tables 12–41 for the fresh vegetables included.

Source: USDA, Economic Research Service calculations using U.S. Department of Commerce, Bureau of the Census data.

Fresh vegetable import values, 2018–21



Source: USDA, Economic Research Service calculations using U.S. Department of Commerce, Bureau of the Census data.

Average Number of Employees by Farm Size