Massachusetts Agriculture Snapshot 2021

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MDAR
MASSACHUSETTS DEPARTMENT OF AGRICULTURAL RESOURCES

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Summary

- USDA Census of Agriculture is a key source for data
- MA agriculture mainly comprises of many small family farms
- MA farmers face developmental pressure and rising costs
- Direct sales to consumers account for a large proportion of overall sales
- Succession planning is an important consideration for aging farmers
- Off-farm income is important for farm financial stability

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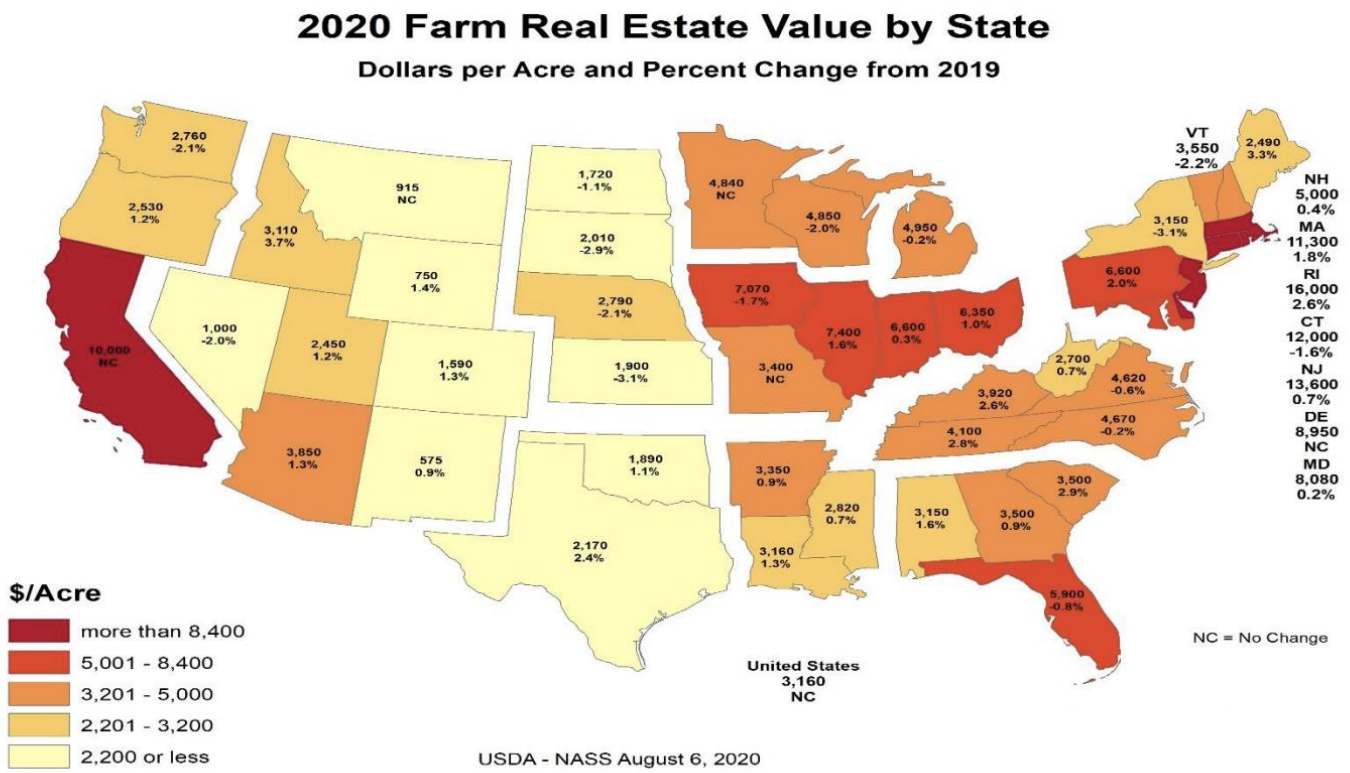
National Comparisons: Land Expenses

Massachusetts farmers experience high land costs

- Massachusetts Statistics
  - Farm real estate value is $11,300 per acre
    - National average is $3,160 per acre
  - High cost of living
    - Ranks 5th highest state for cost of living
    - Ranks 3rd highest state for median housing price

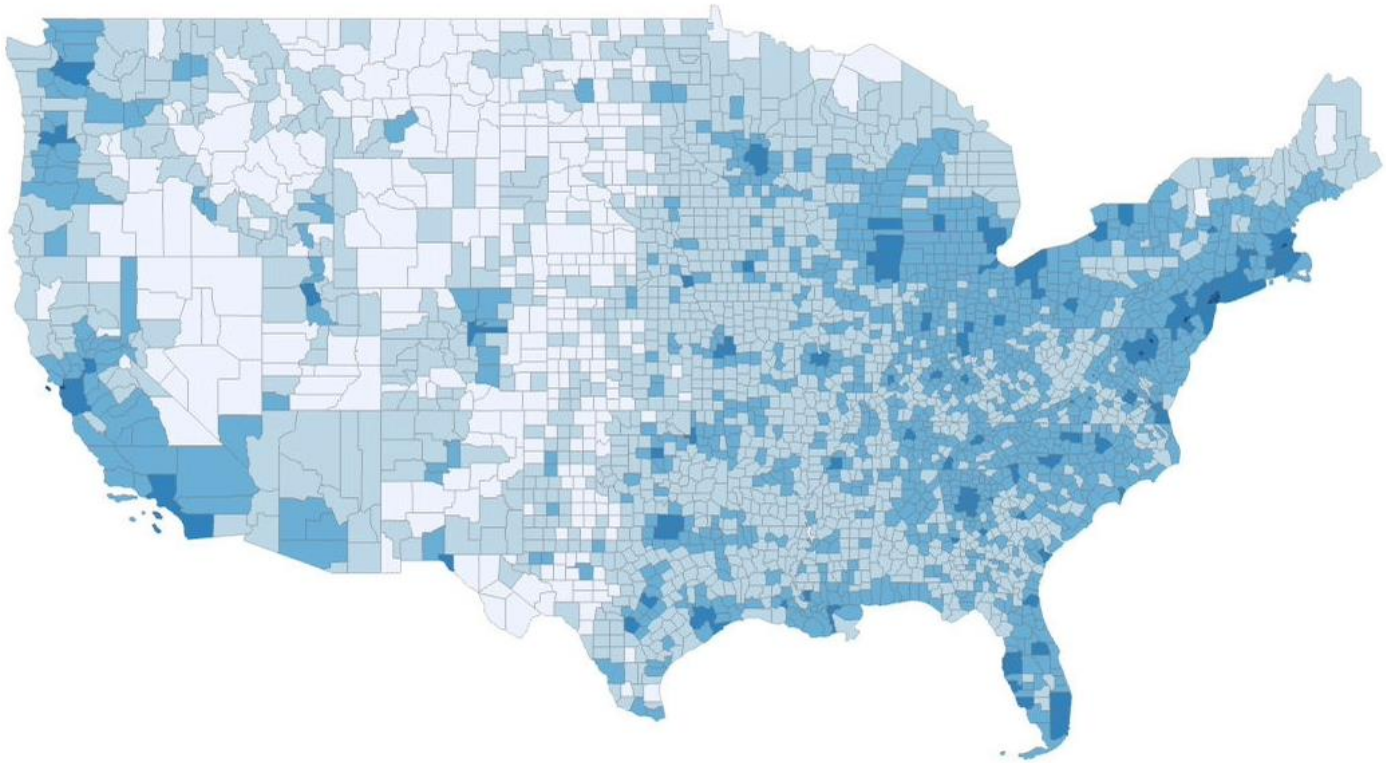


Source: NASS, 2020; World Population Review, 2021; Business Insider, 2021

National Comparisons: Population Density

Massachusetts farmers face developmental pressures

- Massachusetts Statistics
  - The 3rd most densely populated state
  - 885 residents per sq. mile
  - Over 4 times the national average
  - Population grew 7.37% between 2010 and 2020
  - There were 15,808 new housing starts in 2020
    - For perspective, there were 18,875 new housing starts in 2020 for all 5 other New England States



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Source: NASS, 2020; World Population Review, 2021; United States Census Bureau, 2021a; United States Census Bureau, 2021b

Regional Comparisons

Region	Market Value of Agricultural Goods Sold
United States	~$288.5 Billion
New England	~$2.7 Billion
Connecticut	$580 Million
Maine	$666 Million
Massachusetts	$475 Million
New Hampshire	$187 Million
Rhode Island	$57 Million
Vermont	$780 Million

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Source: United States Department of Agriculture 2017 Census of Agriculture

Regional Comparisons: New England

	Region	Number of Farms in 2017	%Δ from 2012
	Connecticut	5,521	-7.6%
	Maine	7,600	-7.0%
	Massachusetts	7,241	-6.6%
	New Hampshire	4,123	-6.1%
	Rhode Island	1,043	-16.1%
	Vermont	6,808	-7.2%

Using USDA sales value data, most farms lost in Massachusetts between 2012 and 2017 were small farms earning below $1,000 in sales. Farming was likely not these farms' primary source of income.

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Source: United States Department of Agriculture 2017 Census of Agriculture

Regional Comparisons: New England

	Region	Average Farm Size	%Δ from 2012
	Connecticut	69.1 acres	-5.4%
	Maine	172.1 acres	-3.3%
	Massachusetts	67.9 acres	+0.6%
	New Hampshire	103.2 acres	-4.4%
	Rhode Island	54.5 acres	-2.6%
	Vermont	175.3 acres	+2.8%

Average sized farms in Massachusetts and Vermont experienced acreage increases while average sized farms in other New England states experienced decreases between 2012 and 2017

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Source: United States Department of Agriculture 2017 Census of Agriculture

Regional Comparisons: New England

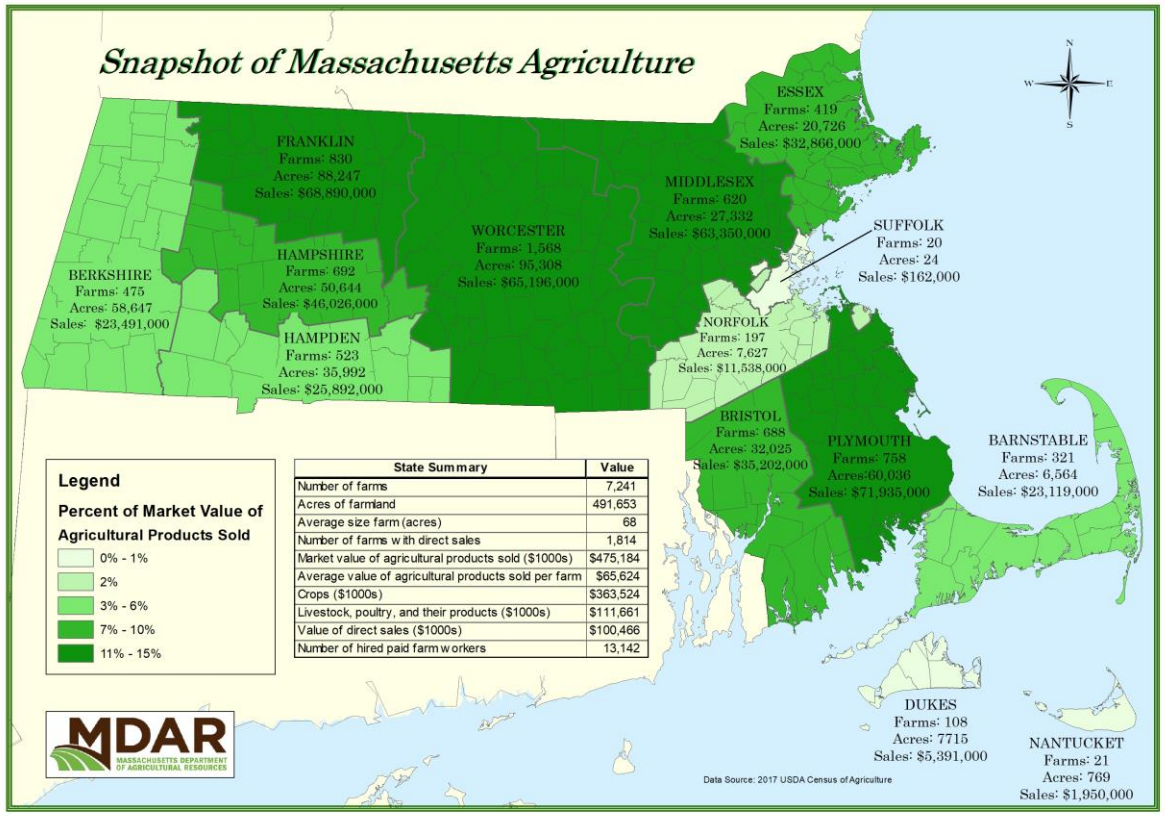
	Region	Median Farm Size	%Δ from 2012
	Connecticut	20 acres	-9.1%
	Maine	55 acres	-17.9%
	Massachusetts	21 acres	-8.7%
	New Hampshire	35 acres	-7.9%
	Rhode Island	20 acres	0%
	Vermont	74 acres	-7.5%

New England experienced median farm acreage decreases between 2012 and 2017

Source: United States Department of Agriculture 2017 Census of Agriculture

Key Massachusetts Statistics

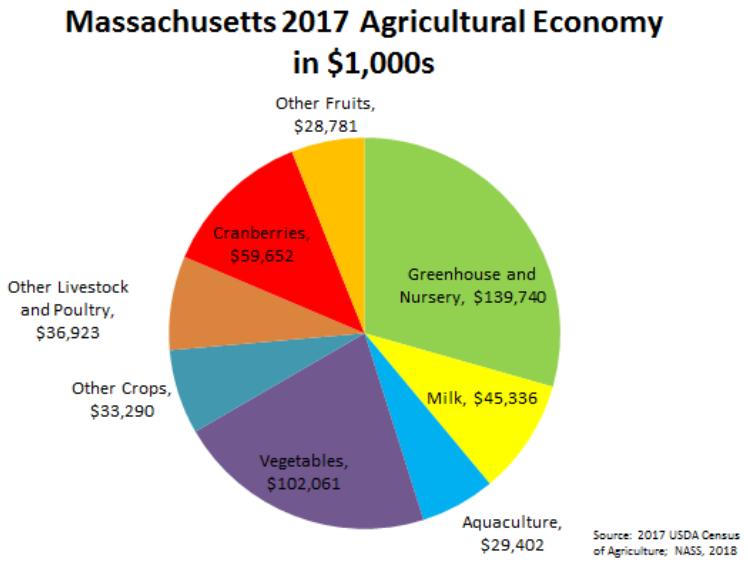
- Annual sales market value $475 million
- Number of farms 7,241
- Acres of farmland 491,653
- Average farm acreage 68
- Average farm agricultural sales $65,624
- Average farmland value $11,000 per acre
  - Ranks the 4th highest state
- Total direct sales to consumers $100,466 million

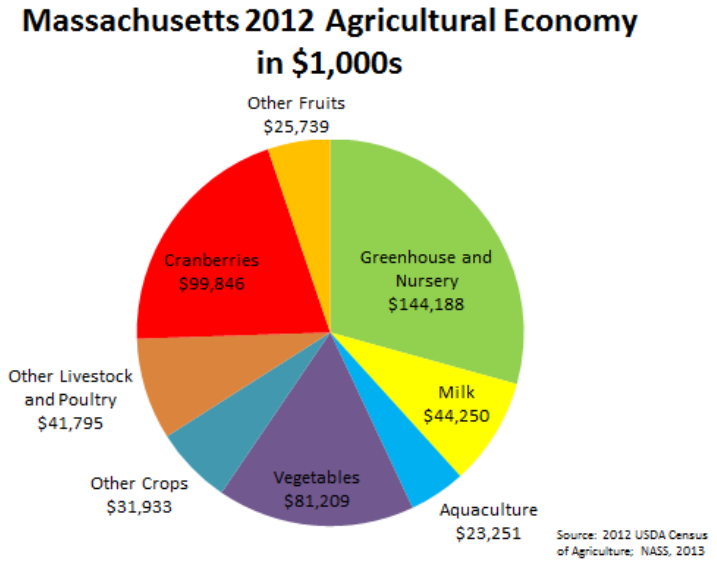


Source: United States Department of Agriculture 2017 Census of Agriculture; United States Department of Agriculture, 2019

Massachusetts Agricultural Sector Pie Charts

Sector	Dollar ($1,000s)△	%△
Aquaculture	+6,151	+26.5%
Cranberries	-40,194	-40.3%
Greenhouse and Nursery	-4,448	-3.1%
Milk	+1,086	+2.5%
Other Crops	+1,357	+4.2%
Fruit (non-cranberry)	+3,042	+11.8%
Livestock and Poultry	-4,872	-11.7%
Vegetables	+20,852	+25.7%





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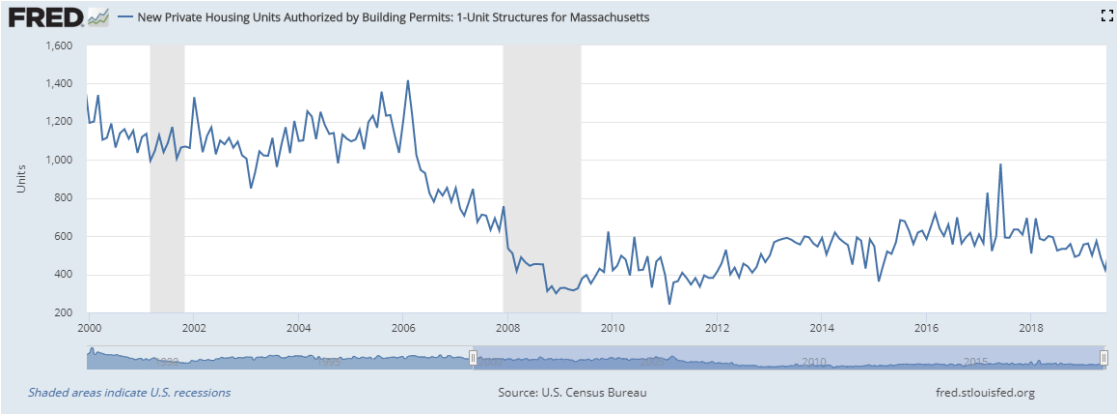
Sectors: Greenhouse and Nursery

- Greenhouse and Nurseries account for 29% of the agricultural economy in goods sold
- Market value: $139 million
- Number of operations: 867
- MA has the 2nd largest greenhouse and nursery industry in New England
- MA is a top 10 state for greenhouse and nursery sales value per square land mile
- One-unit housing starts is a leading indicator for the industry
  - Houses plant and maintain plants, trees, and lawns



Source: United States Department of Agriculture 2017 Census of Agriculture; United States Census Bureau, 2010; Federal Reserve Bank of St. Louis, 2019

Sectors: Vegetables and Other Fruits

Sector	Market Value	%△	Farms
Vegetables	$102 million	25.7%	1,402
Other Fruits	$29 million	11.8%	509

- Direct sales to consumers is an important component to these sectors and Massachusetts agriculture
  - Total direct sales to consumers (includes non-produce sales) account for $100 million goods sold for all agricultural products in MA
    - That's 21.1% of the agricultural economy making MA the most reliant state for direct sales to consumers

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Source: United States Department of Agriculture 2017 Census of Agriculture; United States Census Bureau, 2018

Sectors: Cranberries

- Cranberries account for 13% of the agricultural economy in goods sold
- Market value: $59,652 million
  - This includes both processed and fresh cranberry products
- MA is the 2nd largest cranberry state in the U.S
- A classic Thanksgiving food
- Cranberries used to have a market value of $103.5 million in MA
  - Challenges to the industry:
    - Supply <Demand
    - Slower demand for cranberry consumption is outpaced by production
      - Industry has tried supply management in recent years
    - International competition
    - International trade policies

United States Department of Agriculture, National Agricultural Statistics Service, 2018

Sectors: Dairy

- Dairy account for 10% of the agricultural economy in goods sold
- Market value: $45 million
- Number of Dairy Farms:
  - 121 with Bovine cows
  - 11 with Caprine
  - 1 with Ovine
    - Farms may have multiple types of cows
  - There are 9,242 total milking cows
- Value added products such as ice-cream and cheese can contribute to farmer's business model
- The annual Dairy Tax Credit administered by MDAR helps dairy farmers when the cost of production is greater than the federally set price of milk

- Challenges to the industry:
  - Supply > Demand
  - Low milk prices
  - High cost of production
  - Competition from plant-based alternatives

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Source: United States Department of Agriculture, National Agricultural Statistics Service, 2018; MDAR records

Producer Demographics

- **Gender**
  - Male:
    - MA: 56%
    - USA 64%
  - Female:
    - MA: 44%
    - USA: 36%

- **Age**
  - <35:
    - MA: 8%
    - USA: 8%
  - 35-64:
    - MA: 57%
    - USA: 58%
  - 65+:
    - MA: 33%
    - USA: 34%

- **Race**
  - Non-white:
    - MA: 3%
    - USA: 5%
- **Other Characteristics**
  - Hispanic, Latino, Spanish Origin:
    - MA: 1%
    - USA: 3
  - Military Service:
    - MA: 8%
    - USA: 11%
  - New & beginning farmers:
    - MA: 27%
    - USA: 27
    - New and Beginning farmers defined as a farmer having 10 or fewer years experience

Succession planning is an important consideration for aging farmers.

Note that the definition of a “producer” was changed between the 2012 and 2017 Census of Agriculture

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Source: United States Department of Agriculture 2017 Census of Agriculture; United States Census Bureau, 2018

New Opportunities for Farmers

- Farmers diversify their productions by producing value added products such as maple ice-cream, cheese, and beverages
- Agritourism is a fast-growing field for farmers
  - Pick-your own apple orchards or strawberries
  - Pumpkin patch
  - Sunflower fields
- Off-farm income is important for financials
  - Non-farm jobs from family bring money into the farm
  - Most farms in MA have off-farm income

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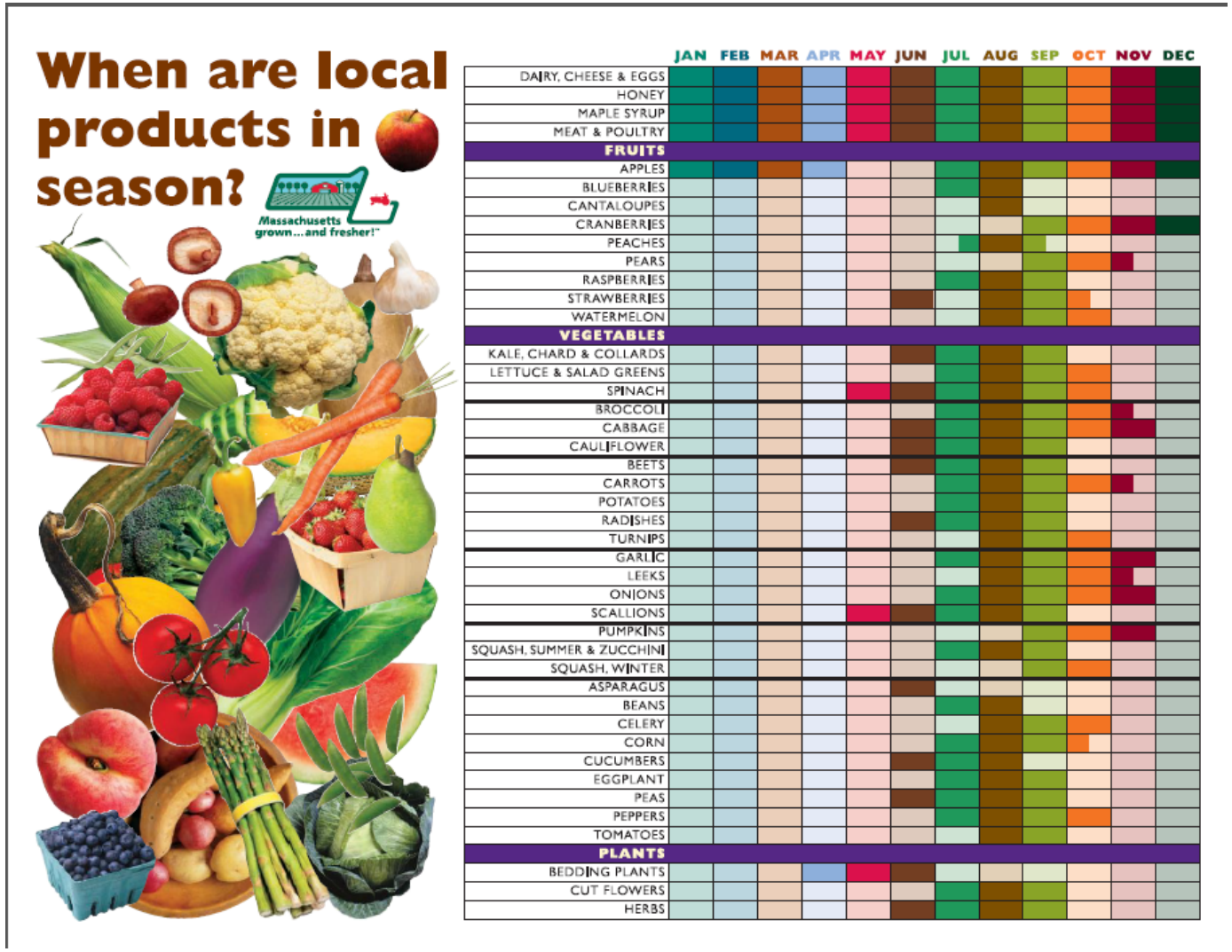
Produce Availability Table



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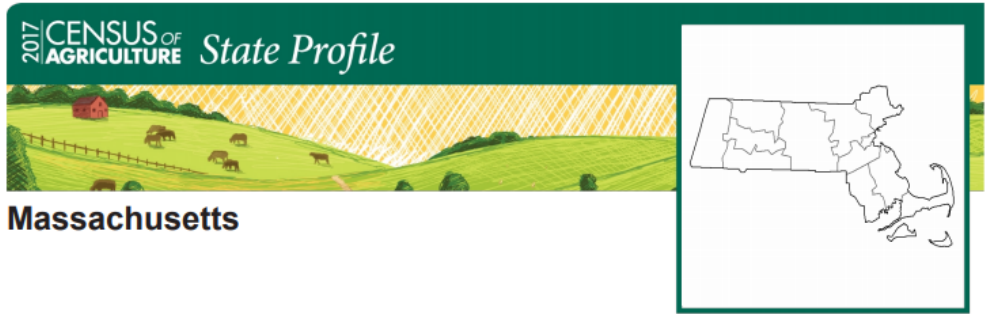
Useful USDA Resources

- https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/Massachusetts/index.php
- The USDA provides great summaries for all states and counties

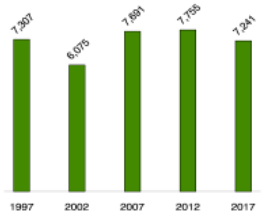


Massachusetts

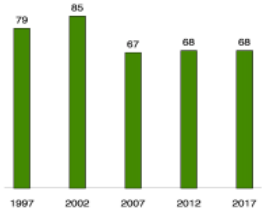
Total and Per Farm Overview, 2017 and change since 2012

	2017	% change since 2012
Number of farms	7,241	-7
Land in farms (acres)	491,653	-6
Average size of farm (acres)	68	+1
Total	($)	
Market value of products sold	475,184,000	-3
Government payments	4,004,000	-51
Farm-related income	70,388,000	-10
Total farm production expenses	492,665,000	-9
Net cash farm income	56,911,000	+44
Per farm average	($)	
Market value of products sold	65,624	+3
Government payments (average per farm receiving)	7,583	-27
Farm-related income	28,009	-3
Total farm production expenses	68,038	-2
Net cash farm income	7,859	+54

Number of Farms, 1997-2017



Average Farm Size, 1997-2017 (acres)



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