



# 2018-2019 Annual Report

Massachusetts  
Department of  
Agricultural  
Resources



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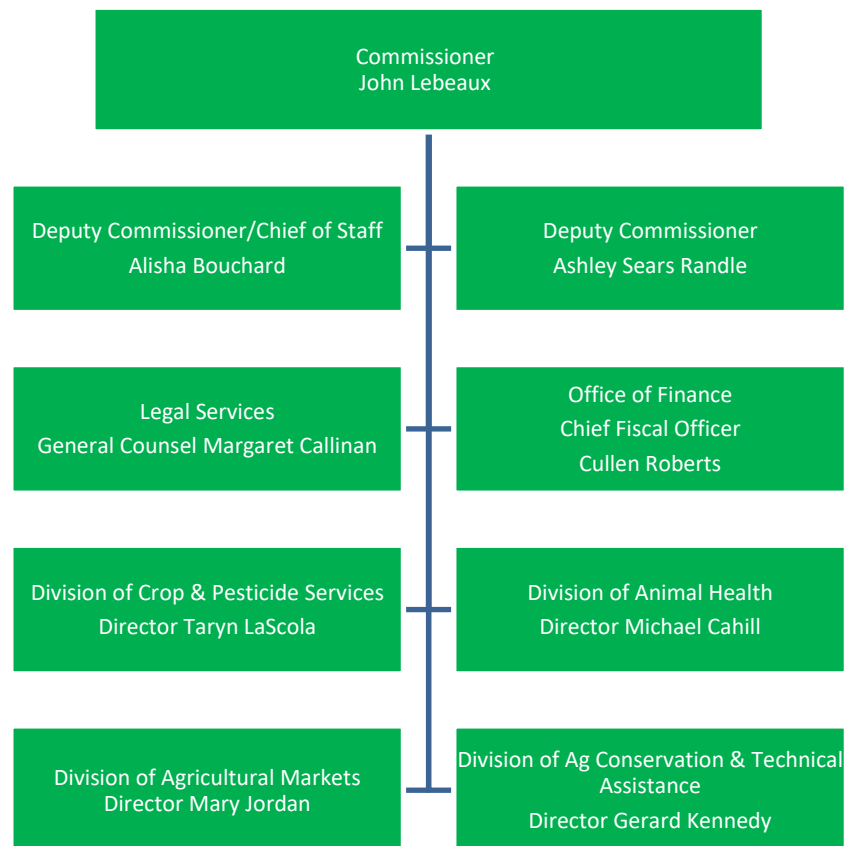
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## Agency Organizational Overview

**MISSION:** The Massachusetts Department of Agricultural Resources' (MDAR) mission is to help keep the Massachusetts' food supply safe and secure, and to work to keep Massachusetts agriculture economically and environmentally sound.

**HISTORY:** MDAR has a long and illustrious history dating back prior to the creation of the US Department of Agriculture. As early as 1852, the various county presidents of the Agricultural Societies across Massachusetts came together to create the Board of Agriculture, a body that has, over the years, evolved into the current Board of Agriculture and the Massachusetts Department of Agricultural Resources within the Executive Office of Energy and Environmental Affairs.



# THE COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS



## Department of Agricultural Resources

251 Causeway Street, Suite 500, Boston, MA 02114  
617-626-1700 fax: 617-626-1850 [www.mass.gov/agr](http://www.mass.gov/agr)



CHARLES D. BAKER

Governor

KARYN E. POLITO  
Lt. Governor

KATHLEEN A. THEOHARIDES  
Secretary

JOHN LEBEAUX  
Commissioner

## Commissioner's Letter

### John Lebeaux, Commissioner

Following the traditional pattern, in 2018 and 2019 MDAR routinely conducted its normal business activities, and also was presented with new opportunities and challenges.

Following the 40<sup>th</sup> anniversary of the Agricultural Preservation Restriction Program and continuing efforts to improve the program, MDAR hosted four *APR Looking Forward* listening sessions throughout the state to hear directly from interested members of the public.

Under authority granted by the November 2016 citizens' initiative ballot question, MDAR initiated its Hemp Program in spring 2018, to provide a framework to provide for cultivation and sale of this newly legalized agricultural product. Later that year, USDA released its Interim Final Rule, requiring interim policy changes to the state program as the final federal rule is developed.

Assistant Commissioner Jason Wentworth left MDAR during spring 2018 to pursue other career opportunities. Jason was a highly trusted and valued advisor to me, and though very pleased for his professional advancement, I was equally sorry to see him leave the department. In the fall of that year, Ashley Sears Randle joined MDAR as Assistant Commissioner, later reclassified as Deputy Commissioner. The agricultural community has derived much benefit from the thoughtful, creative work performed by these two key members of the Commissioner's Office who daily worked alongside Deputy Commissioner Alisha Bouchard and me.

In 2018, MDAR expanded its presence in the southeast portion of the state by opening an office in Lakeville. The office principally houses MDAR's Produce Safety group along with other agency personnel.

With the support of my peers from nine other states, I was elected as President of the Northeastern Association of State Departments of Agriculture (NEASDA) in 2018; as a result, I also became a member of the board of directors of the National Association of State Departments of Agriculture (NASDA). A key function of the regional presidency is to plan and host the NEASDA Annual Meeting held in June each year. MDAR immediately began its scouting and planning for 2019.

In early 2019 Secretary of Energy and Environmental Affairs Matt Beaton stepped down from his position. Secretary Beaton was a champion for MA Agriculture. I am forever grateful for his support to the industry, the agency, and to me. He was replaced as Secretary by his Undersecretary for Climate Change, Kathleen Theoharides, who shares Matt's enthusiasm for MA Agriculture!

During 2019, MDAR Chief Fiscal Officer Michael Rock retired after a long and successful career in state government. Michael always made sure we had gas in the correct tanks and offered me wise counsel which I welcomed. He was replaced as CFO by Cullen Roberts, formally Budget Director at the Department of Public Health, who has continued Michael's work ensuring our fiscal processes are functioning with maximum efficiency, and with proper controls in place.

MDAR hosted a very successful NEASDA Annual Meeting in Brewster in June 2019. Attended by regional and national interested parties, the conference was a great success, combining interesting presentations, engaged policy discussions, and excellent tours of what SE MA Agriculture has to offer. MDAR was delighted that both Lt. Governor Karyn Polito and Secretary of Energy and Environmental Affairs Kathleen Theoharides had time to attend and address the body.

MDAR has significant authorities relative to mosquito control. In 2019, Massachusetts faced the worst outbreak of the potentially fatal Eastern Equine Encephalitis virus (EEEV) in its history including multiple infections and fatalities. In consultation with the MA Department of Public Health and based on heightened risk level for human exposure, a decision was made to proceed with aerial spraying managed by MDAR as a necessary intervention to help reduce the risk of human exposure to EEEV.

Though MDAR managed aerial sprays in 2006, 2010, and 2012, each of those efforts were of much lesser scope, contained to two SE MA counties over a few days. In 2019, spraying took place for twenty-six nights over two million acres in nine of the Commonwealth's fourteen counties.

2019 marked the 100<sup>th</sup> Anniversary of the formal creation of the Department, and also the 100<sup>th</sup> Anniversary of the MDAR-managed Massachusetts Building, located on the grounds of Eastern States Exposition in W. Springfield. Funded by a legislative appropriation of \$50,000 to promote agriculture, commerce, and tourism, on September 16, 1919 Lt. Governor Channing Cox presided over the Building's dedication. Exactly one hundred years later, on September 16, 2019, his successor, Lt. Governor Karyn Polito presided over the Building's rededication at a joyous event attended by hundreds!

A highlight of the year was a visit by USDA Undersecretary of Farm Production and Conservation Bill Northey. MDAR was able to show the former Iowa Secretary of Agriculture some cranberry and aquaculture operations.

Please review this entire report for a complete summary of all MDAR's activities to support its mission *"to help keep the Massachusetts' food safe and secure, and to work to keep Massachusetts agriculture economically and environmentally sound"*.

Respectfully submitted,

John Lebeaux

Commissioner



# Snapshot of Massachusetts Agriculture

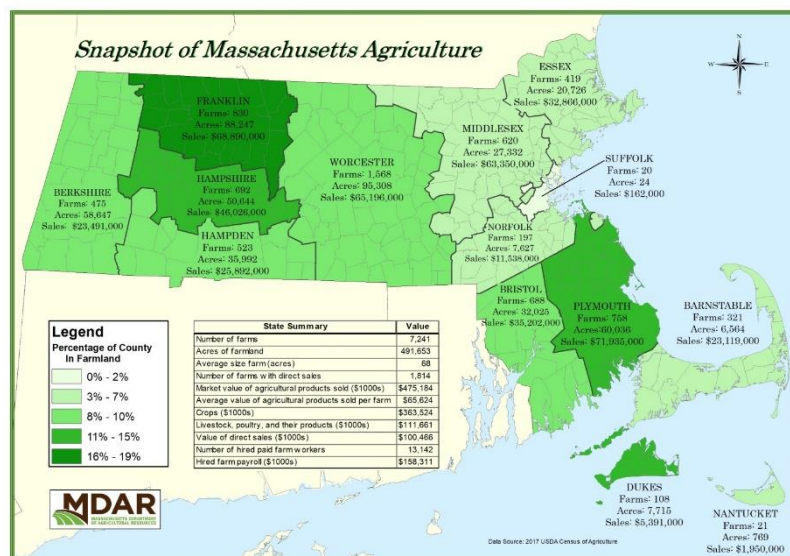
Myron Inglis, Senior Economist

Massachusetts has 7,241 farms on 491,653 acres.<sup>1</sup> The agricultural industry provides employment to 25,920 farm employees and produces an annual market value of over \$475 million dollars in agricultural goods. Most farms are individually, or family owned (95%) and fall into the category of “small farms” (94.2%).<sup>2</sup> The average farm produces \$65,624 in annual agricultural sales on 68 acres.

The economic impact of agriculture extends beyond the farm gate.

Massachusetts farms support a variety of ancillary businesses, including feed and equipment dealers and agricultural processing businesses. Agriculture in Massachusetts is estimated to have an economic impact of approximately \$10 billion and create approximately 45,000 additional jobs in Massachusetts.<sup>3</sup>

Massachusetts’ farmers face several challenges. Developmental pressure is one challenge. Massachusetts is the third most densely populated state in the U.S with 883 individuals per square land mile<sup>4</sup>, and is ranked the 4<sup>th</sup> highest state for average farmland value at \$11,100 per acre.<sup>5</sup> Massachusetts experienced a strong economy in both 2018 and 2019. State unemployment rates in Massachusetts have consistently been lower than national unemployment rates, and as of December 2019, the Massachusetts unemployment rate was 2.8%.<sup>6</sup> These factors contribute to high developmental pressure from the non-agricultural sector on agricultural land. However, farmers have demonstrated great entrepreneurial skills and have taken advantage of high population density and a strong economy by marketing directly to consumers. Direct market sales is a key feature of Massachusetts agriculture. Massachusetts ranks 5<sup>th</sup> in the nation for direct market sales with over \$100 million, and ranks 3<sup>rd</sup> in the nation for direct market sales per farm at \$55,384. Direct market sales account for 21.1% of the state’s total sales of agricultural products; that is the highest proportion in the country. Additionally, Massachusetts ranks 8<sup>th</sup> in the nation for direct sales per capita.



<sup>1</sup> All statistics are from the 2017 USDA Census of Agriculture unless noted otherwise.

<sup>2</sup> The United States Department of Agriculture defines small farms as farms with sales below \$250,000.

<sup>3</sup> Farm Credit East. (2015). Northeast economic engine: Agriculture, forest products and commercial fishing. Retrieved from <https://www.farmcrediteast.com/knowledge-exchange/Reports/northeast-economic-engine-agriculture-forest-products-and-commercial-fishing> [Accessed May, 2018]. Note that Farm Credit East uses an IMPLAN model for their study which relies on several assumptions. Commercial fishing activities are originally included in the IMPLAN model, but the above numbers do not include the economic impact of commercial fishing activities

<sup>4</sup> Population density is calculated by dividing total population by total land mass. Population information is from the United States Census Bureau Population Division. (2020). State population totals and components of Change: 2010-2017. Retrieved from <https://www.census.gov/data/tables/time-series/demo/popest/2010s-state-total.html> [Accessed February, 2019] and land mass information is from the United States Census Bureau. (2010). State area measurement and internal point coordinates. Retrieved from <https://www.census.gov/geo/reference/state-area.html> [Accessed May, 2018]

<sup>5</sup> United States Department of Agriculture. (2017). Land values 2017 summary. Retrieved from [https://www.nass.usda.gov/Publications/Todays\\_Reports/reports/land0819.pdf](https://www.nass.usda.gov/Publications/Todays_Reports/reports/land0819.pdf) [Accessed February, 2020]

<sup>6</sup> United States Bureau of Labor Statistics. (2020). Economy at a glance: Massachusetts. Retrieved from <https://www.bls.gov/eag/eag.ma.htm> [Accessed February, 2020]

High costs are another challenge to Massachusetts farming, particularly labor costs. Farmers on average spent 32.1% of their expense budget on hired labor costs. As a point of reference, the next highest expense on average is feed costs, and feed costs account for 8.6% of total expenses.

A third challenge to Massachusetts' farmers is the current federal administration's trade policies. Ongoing trade negotiations and disputes with several foreign nations leave farmers with a large degree of uncertainty about their market opportunities.

### Greenhouse & Nursery

The greenhouse and nursery industry is Massachusetts' largest agricultural sector. It has a market value of over \$139 million, and accounts for approximately 29% of the state's agricultural economy. There are 867 commercial greenhouse and nursery businesses that on average produce \$161,176 in sales annually.

### Produce

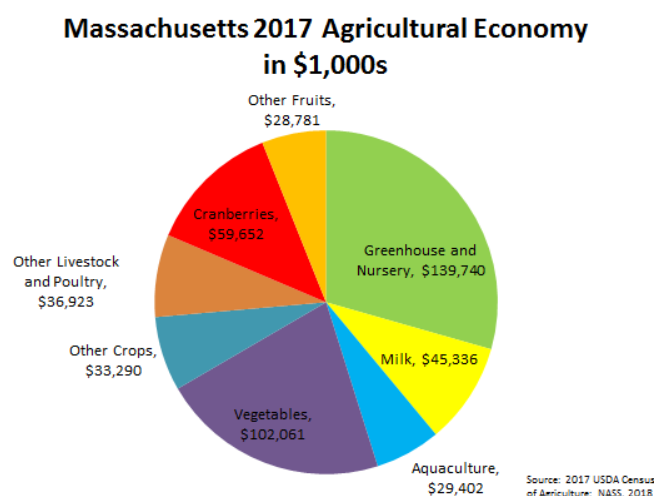
The produce sector has an annual market value of over \$161 million, and accounts for 34% of the agricultural economy.<sup>7</sup> There are 1,402 vegetable farms who contribute over \$102 million to the Massachusetts agricultural economy, and 1,178 fruit farms who contribute over \$88 million.

### Cranberries

Massachusetts is the second largest cranberry producing state in the U.S. The cranberry industry is the third largest agricultural sector in Massachusetts with approximately 375 growers on approximately 13,250 bogs.<sup>8</sup> Massachusetts cranberry growers contributed over \$59 million and \$49 million to the agricultural economy in 2017 and 2018, respectively.<sup>9</sup> The cranberry industry has struggled in recent years as the industry contributed as much as \$103 million to the Massachusetts agricultural economy in 2011.<sup>10</sup>

One challenge to Massachusetts cranberry producers is the large growing world supply of cranberries. This contributes to declining prices. Foreign producer growth, especially in Quebec, Canada, contributes to increased competition and the supply in the cranberry market.

To increase prices by reducing supply, the USDA is implementing volume controls as recommended by the U.S Federal Cranberry Marketing Committee (CMC), a national organization representing cranberry growers' interests. The volume control took 15% of U.S cranberries out of the market for the 2017-2018 growing season. An additional 25% of U.S cranberries for the 2018-2019 growing season is being proposed to be taken out of the market by the USDA on behalf of the CMC.<sup>11</sup>



<sup>7</sup> All numbers in the produce section includes cranberries.

<sup>8</sup> Cape Cod Cranberry Growers' Association. (2018). Frequently asked questions. Retrieved from <https://www.cranberries.org/faqs> [Accessed February, 2020]

<sup>9</sup> National Agricultural Statistics Service. (2019). Cranberry highlights. Retrieved from [https://www.nass.usda.gov/Statistics\\_by\\_State/Wisconsin/Publications/Crops/2019/WI-Cranberries-Annual-06-19.pdf](https://www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/Crops/2019/WI-Cranberries-Annual-06-19.pdf) [Accessed February, 2020]

<sup>10</sup> National Agricultural Statistics Service. (2012). Cranberries. Retrieved from [https://www.nass.usda.gov/Statistics\\_by\\_State/New\\_England\\_includes/Publications/Annual\\_Statistical\\_Bulletin/2012/cranberries2012.pdf](https://www.nass.usda.gov/Statistics_by_State/New_England_includes/Publications/Annual_Statistical_Bulletin/2012/cranberries2012.pdf) [Accessed February, 2020]

<sup>11</sup> Source: MDAR conversations with the Cape Cod Cranberry Growers Association in 2019

Another challenge to the Massachusetts cranberry industry is the federal administration's trade policy. The cranberry industry is impacted by trade policy more than other agricultural sector in Massachusetts, partly due to political leverage. The federal administration distributed relief payments totaling \$26.2 million to cranberry growers throughout the country via the Market Facilitation Program designed to offset negative impacts of trade disputes.<sup>12</sup> Although helpful, these payments do not completely mitigate losses due to international trade. The current federal administration's position on free trade leaves the cranberry industry with fewer markets abroad due to trade restrictions such as tariffs. China, the European Union, the North American Free Trade Agreement (NAFTA), and the Trans-Pacific Partnership (TPP) all represent growing market opportunities for the cranberry industry and the agricultural sector in general.

### Livestock & Poultry

The livestock associated businesses account for over \$36 million in sales for the Massachusetts agricultural economy with poultry and egg farms accounting for over \$12 million.

### Aquaculture

The aquaculture industry in Massachusetts has 201 farms and is responsible for an annual market value of over \$29 million.

### Dairy

Massachusetts had 125 dairy farms in 2019<sup>13</sup> that produced 192 million pounds of milk.<sup>14</sup> Dairy farmers have struggled with low milk prices set by the Federal Milk Marketing Order and a high cost of production that can exceed milk prices for many producers in the state. Berkshire County is the largest milk producing county in Massachusetts.

### Dairy Farmer Tax Credit Program

In 2018 and 2019, Massachusetts Department of Agricultural Resources (MDAR) continued to administer the Massachusetts Dairy Farmer Tax Credit Program. This program was established in 2008 to offset cyclical downturns in milk prices by providing financial assistance to dairy farmers in the form of a tax credit. The state budget for the program was increased from \$4 million to its current \$6 million in 2018. For each month that the average cost of production exceeds milk prices, the dairy tax credit is triggered for the given month(s).<sup>15</sup> In 2018 and 2019, the average cost of production exceeded the price of milk for all 12 months in both years which triggered the tax credit for every month. This means that the full \$6 million was distributed to dairy farmers each year for 2018 and 2019. The resulting tax credit payment to Massachusetts dairy farmers was \$2.98 per hundredweight of milk and \$3.15 per hundredweight of milk in 2018 and 2019, respectively. Anecdotally, the tax credit helps dairy farmers to qualify for loans, pay for feed, and undertake new projects.

### Retail Coupon for Fluid Milk Program

This program was established to allow for the use of fluid milk coupons in promotional and marketing campaigns to benefit businesses and consumers. The goal of the program is to increase fluid milk consumption, and promotional coupons provide consumers discounts of milk. The program is regulated to uphold [M.G.L. Chapter 94A](#), and helps ensure that a competitive milk market exists. According to MDAR regulations, milk coupon promotions must not result in a sale of milk that is below the cost of production, nor appear to be predatory towards any Massachusetts dairy farm that directly markets and sells its own fluid milk to consumers.

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<sup>12</sup> Cranberry Marketing Committee. (2019). Industry News. Retrieved from <https://www.uscranberries.com/industry-news/mfp-tariff-relief-payments/> [Accessed February, 2020]

<sup>13</sup> Internal MDAR Animal Health records

<sup>14</sup> National Agricultural Statistics Service. (2018). 2017 State agriculture overview: Massachusetts. Retrieved from [https://www.nass.usda.gov/Quick\\_Stats/Ag\\_Overview/stateOverview.php?state=MASSACHUSETTS](https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=MASSACHUSETTS) [Accessed May, 2018]

<sup>15</sup> Average cost of production for milk is determined by UMASS Amherst studies

# Massachusetts Dairy Promotion Board FY 2019 Annual Report

## Katie Rozenas

The Massachusetts Dairy Promotion Board (MDPB) develops programs and policies with the objective of increasing the consumption of Massachusetts dairy products through promotion, research, and educational activities. The nine-member board is comprised of representatives from the dairy farming associations, milk processors, the Department of Agricultural Resources (MDAR), and the Executive Office of Administration and Finance (ANF).

### 2019 Board Members

(Appointed by the Commissioner of the MDAR)

John Lebeaux	Chairman	MDAR
Ashley Randle	Designee for Chair	MDAR
David Hanson	Vice-Chair	Agri-Mark
Darryl Williams	Treasurer	MA Association of Dairy Farmers
Melissa Griffin	Secretary	Agri-Mark
Lynne Bohan	Board Member	Massachusetts Food Association
Kathleen Herrick	Board Member	MA Association of Dairy Farmers
Jim Hunt	Board Member	MA Milk Producers
Warren Shaw	Board Member	New England Producer Handler Association
Brian McKeon	Appointed	ANF

### Massachusetts Dairy Farm Revitalization Task Force

On May 10, 2007 the acting MDAR Commissioner, Scott J. Soares issued a Declaration of Crisis in the Dairy Industry as a response to the Dairy Farmer Petition for Relief. One result of the Declaration was immediate action by the Governor and the Legislature to provide emergency relief to dairy farmers and to establish a Dairy Revitalization Task Force. As a result of the crisis conditions, Gubernatorial and Legislative action yielded Chapter 42 of the Acts of 2007, established the Dairy Farm Revitalization Task Force. The Task Force consisted of 17 members including three dairy farmers, six legislators, a milk processor representative, and seven various members of the Executive Branch. The purpose of the Task Force was to:

*“...investigate short and long-term solutions to preserving and strengthening the dairy farm industry in the Commonwealth. Said investigation shall include methods to promote the innovation in, and the revitalization of, the Massachusetts dairy farming community, including without limitation, investigating the impact of increased fixed costs borne by the dairy farming community including, but not limited to, fuel prices, healthcare and insurance; promoting locally produced milk; and promoting alternative and renewable energy uses for farmers.”*

On November 9, 2007 a report to the Legislature was filed. The Task Force recommended enacting legislation to establish a **Massachusetts Dairy Promotion Board** (M.G.L. Chapter 310 Sec: 30(a). The Massachusetts Dairy Promotion Board as stated in M.G.L. Chapter 310 Sec. 30(d), assesses a fee of 10 cents per hundredweight of all milk production that is commensurate with the credit allowed for producer contribution to state qualified programs (QP's) under the Dairy Production Stabilization Act of 1983. MDPB verifies production reports with the National Dairy Promotion and Research Board semi-annually to assure compliance with the assessment provisions of the Act.

In 2019, the following actions were taken by the Board in accordance with the mission to develop programs and policies with the objective of increasing the positive image of Massachusetts dairy products through promotion, research, and educational activities.

## 2019 Adopted Motions:

*Please note that these grants were approved in 2019 to be completed during FY2020.*

- Approved allocation of \$60,000 for the NE Dairy & Food Council to provide sub-grants to schools in Massachusetts in connection with the Fuel Up to Play 60 initiative, to increase milk sales and implement dairy-focused healthy eating strategies with an emphasis on increasing school breakfast participation
- Approved allocation of \$60,000 for the NE Dairy Promotion Board to advance the image of MA dairy farmers through the use of FOX 25 Zip Trips segments and promotion at large-scale events, including the Kiss 108 summer concert.\*\* The Massachusetts Dairy Promotion Board votes to fund the NEDPB proposal fully with \$42,000 being available as of July 1, 2019 and the remaining \$18,000 to be available January 1, 2020 so long as there are funds available. \*\*
- Approved allocation of \$30,750 to CISA to perform dairy economic research, social media campaigns and video production, and staff support for project oversight which would include synthesizing economic research data and creating an economic report as well as coordination with partners and contractors regarding statewide promotion.
- Approved allocation of \$24,550 to the Massachusetts Association of Dairy Farmers to build brand awareness including strategies for dairy farmers to utilize the “A Splash of Mass in Every Glass” for their value-added success and to showcase the value and viability of dairy farms across Massachusetts.
- Approved allocation of \$20,000 to Eastern State Exposition for hosting “Chocolate Milk Day” on September 22, 2019 during the Big E and providing fairgoers the opportunity to sample chocolate milk and learn more about the nutritional benefits of consuming milk.
- Approved allocation of \$12,000 to the Northeast Organic Farming Association to provide consumer education focusing on the positive contributions that Massachusetts Dairy Farms provide to the environment that improve ecosystem services and mitigate climate change.
- Approved allocation of \$20,059 to Essex Agricultural Society DBA Northeast Harvest/ Topsfield Fair to educate community members in Essex and Middlesex counties, and attendees at the Topsfield fair where dairy comes from and the installation of (2) milk dispensers to distribute milk during the duration of the 11-day fair.

### Accounting: Revenue vs. Expenses

<b>FY 19 Revenue</b>	<b>\$377,017.37</b>
<i>Beg. Balance (\$194,006.97) + Earned Revenue (\$183,010.34)</i>	
<b>FY19 Expenditures</b>	<b>\$236,412.83</b>
<b>Balance</b>	<b>\$140,604.48</b>



## Massachusetts Food Policy Council (M.G.L. Chapter 20 § 6c)

**Bonita Oehlke, Staff Liaison**

Late in 2010, Chapter 277 of the Acts of 2010 amended Massachusetts General Law Chapter 20 by inserting Section 6C, creating a 17-member Food Policy Council (“FPC”). The purpose of the council, detailed minutes and reports are at <http://www.mass.gov/eea/agencies/agr/boards-commissions/food-policy-council.html>

### **State agency members:**

John Lebeaux, Commissioner, MDAR

Michael Kennealy, Secretary, Designee: Helena Fruscio, EOHED

Dr. Monica Bharel, Commissioner, Designee: Lea Susan Ojamaa, MPH

Martin Suuberg, Commissioner, MDEP, Designee: Danah Tench

Jeff Riley, Commissioner, Designee: Robert Leshin, DESE

Jeff McCue, Commissioner, MDTA

### **Legislative members:**

Senator Jo Comerford

Representative Daniel Donahue

Senator Ryan Fattman

Representative Hannah Kane

### **Industry members (appointed by the Governor):**

Anna Goldenheim, MD, replaced Vivien Morris, MS, RD, MPH, LDN, Community based nutrition and public health expert

Jeff Cole, Executive Director, MA farmers markets, direct to consumer marketing

Eric Stocker, Food processor and distributor

Samuel S. Wong, PhD, REHS/RS, Local health department representative

John Lee, Allandale Farm, Farmer

Amanda Kinchla, MS, Food safety extension specialist, UMASS Amherst

John Waite, Food processor and handler

May 8, 2020

Governor Charles Baker

Massachusetts State House, Room 280

Boston, MA 02133

Dear Governor Baker,

On behalf of the Massachusetts Food Policy Council (“Council”), I am pleased to provide this Annual Report pursuant to M.G.L. Chapter 20, Section 6C(e) on the Council’s ongoing work related to the Massachusetts Local Food Action Plan (“Plan”) (<http://mafoodsystem.org/plan/>). In 2019, the Council members continued to review the priorities and goals during meetings as detailed in the attached Annual Report Summary.

Please accept this letter as the Council’s Annual Report. A 2019 focus was on topics relating to reducing hunger, food insecurity and waste, however meetings ran the gamut of topics in the MA Local Food Action Plan. New this year was inclusion of local food policy councils on the meeting agendas (there are at least 26 across the state) to connect local priorities and advocacy with the Council, as well as the MA Food System Caucus and the MA Food System Collaborative. Locations were planned for statewide engagement with four meetings in central MA, one at the State House and one at UMASS Amherst. The Plan is five years old, however, the recommendations continue to be very relevant. The cooperative opportunity for the Council to work with the MA Food System Caucus and the MA Food System Collaborative has been an asset to support

policy recommendations. “You need to have a lot of repetitive conversations before topics are really absorbed and impactful,” said Council member Representative Hannah Kane.

The Council respectfully requests that the Administration and the General Court support the Plan’s broad goals and their underlying programs and link them to larger policy discussions. In many cases, agency members of the Council are already undertaking programs and projects that support the core goals of the Plan. In some situations, the Plan has provided guidance about where additional resources or efforts are needed.

The Council appreciates the Administration’s and the General Court’s past support of the Plan’s vision of a sustainable and equitable food system. We ask that you give continued consideration to these priorities as relevant legislative and regulatory actions are developed. As always, members of the Council would be happy to meet with you or your staff to offer further detail to these priorities, as well as review any parts of the Plan or our work to implement it. Electronic versions of this Report and its attachments will also be provided to you forthwith.

Sincerely,

John Lebeaux, Commissioner

Chair, Massachusetts Food Policy Council

### 2019 Massachusetts Food Policy Council Annual Report Summary

An Act Establishing the Massachusetts Food Policy Council was signed into law on November 7, 2010, which created the 17-member Council that was tasked with developing recommendations for food system goals for the Commonwealth. Pursuant to Section 6C(e) of Chapter 277 of the Acts of 2010, the Council must submit an annual report outlining its findings, conclusions, proposals, recommendations, and progress towards reaching the goals that have been set forth. In 2019, the MA Food Policy Council (FPC) focused on six topics from the MA Local Food Action Plan, forming the meeting themes for the year. The MA Local Food Action Plan was accepted by the FPC on December 10, 2015 and was designed to increase MA-grown food; create jobs and improve wages in food and farming; protect the land and water needed to produce food; ensure food safety, reduce waste, hunger, and food insecurity while making fresh and healthy food more accessible for the residents of the Commonwealth.

A new White Paper was developed and accepted on Education. Detailed minutes of all six meetings throughout the year and White Papers are available at the following link:

<https://www.mass.gov/massachusetts-food-policy-council>

### **January 25, 2019, MA Division of Fisheries and Wildlife, Westborough**

**MA Local Food Action Plan focus:** Reduce hunger and food insecurity - *Healthy Incentive Program (HIP)* and farmers’ markets

The January meeting began with an update on the federal government shutdown. The Department of Transitional Assistance (DTA) worked diligently to ensure that all federal funds were disbursed January into February. If this early issuance did not occur, it would have been impossible to sustain Supplemental Nutrition Assistance Program (SNAP) benefits. Many parties were affected by this shutdown, including 19 certified SNAP retailers and Meals on Wheels. An overview of selected food policy councils, structures, and their priorities was given by the Harvard Food Law and Policy Clinic.

A guide for lobbying and advocacy will be released in March (Please see: <https://today.law.harvard.edu/food-law-and-policy-clinic-releases-advocacy-and-lobbying-guide-for-food-policy-councils/> for final guide). The Council is interested in future discussions on roles, opportunities and new initiatives, with the guide serving as a resource. The meeting closed with a review from Representative Kane on the Massachusetts Food System

Caucus that includes 52 out of 200 legislative members so far. The bipartisan Caucus was formed to address issues that impact the food system in the Commonwealth.

**March 29, 2019, MA Division of Fisheries and Wildlife, Westborough**

**MA Local Food Action Plan focus:** Reduce hunger and food insecurity - school foodservice, Breakfast After the Bell, and protect the land and water - DEP's solid waste master plan

Updates from Council members included the latest on the DEP's Solid Waste Master Plan, MA Department of Elementary and Secondary Education's (DESE) "Breakfast After the Bell" program and their transition of the direct certification system for school foodservice. The "Breakfast After the Bell" project will impact 300 schools and allows students a "second chance" breakfast. Technical assistance is being provided by Project Bread and to date half of the impacted schools have responded with a proposal. The direct certification system is a virtual gateway for students with free or reduced lunches that will replace paper applications. An update on the MA Food System Collaborative highlighted accomplishments in the creation of a "Race and Equity at Farmers' Markets" program that will address the changing demographics as a result of the HIP program. A presentation from the Everett Community Growers on their food assessment plan implementation showed that there are few food outlets and no CSAs or farmers' markets available to the community.

**May 17, 2019, MA Division of Fisheries and Wildlife, Westborough**

**MA Local Food Action Plan focus:** Reduce hunger and food insecurity – Food Trust and Food as Medicine

Council updates included an announcement of the opening of the Worcester Public Market in Kelly Square, as well as a pilot program for HIP and the mobile vending permits that will allow local boards of health to create a shared platform to lower the administrative issues for both health agents and applicants. An overview of the \$750,000 Food Trust Awards to seven businesses across six counties was shared. The Council conducted officer elections. Commissioner Lebeaux was nominated to be chair and the motion was passed unanimously. John Waite was nominated as Vice Chair and Jeff Cole as Secretary. Both unanimously passed. The Food as Medicine Plan was unveiled with 15 policy recommendations. The Franklin County Food Council shared their assessment of Plan goals. Many of the 24 local food policy councils have taken action, however support to study impact would yield a deeper analysis.

**August 2, 2019, UMass Amherst**

**MA Local Food Action Plan Focus:** Reduce hunger and food insecurity – HIP, Breakfast After the Bell, MA in Motion

Former DTA Commissioner McCue shared a HIP update with a forecasted increase of about 13% in FY19, which demonstrates increased HIP usage. "Breakfast After the Bell" Program updates included outreach success with partner Project Bread. The last USDA MA Farm to School census totaled \$10.3M in local purchases based on 68% of schools responding. A new census will be conducted later this year. The MA Food Trust was funded next year at \$1M with an additional \$100,000 for administration. The meeting program featured DPH providing insight into the work of MA in Motion and their 450 partners across the state. Strategies include food assessment and healthy food distribution. A field trip to the UMASS South Deerfield facility featured presentations on the future of farming including student farming, pollinator disease transmission, extending growth season, and tomato diversity.

**September 20, 2019, Weiss Conference Center, Westborough**

**MA Local Food Action Plan focus:** Reduce hunger and food insecurity – HIP summary, MA Food Caucus



Commissioner Lebeaux commented on MDAR's celebration of the Big E's 100<sup>th</sup> anniversary and a successful mobile market event in New Bedford, MA, hosted by the Coastal Foodshed. Council member updates included a discussion on the MA Food System Caucus re: proposed rule changes on eligibility for SNAP, which could have an impact on 100,000 clients in MA. The DESE will coordinate with the USDA for the 2020 Farm to School Census. The Council program focused on a summary evaluation of HIP, which provided insight into food access in MA. The local economic impact includes 53% of municipalities experiencing HIP sales. The MA Food Trust Program Team provided an annual summary, showing that in 7 months, 12 projects in 7 counties have been initiated, yielding \$108,000 in increased access including awards to minority and cooperative businesses. Some 25% of the funds are allocated through mini-grants. The meeting closed with comments from the Council subcommittee asking how a stronger connection can be made to the Governor's Office to promote the tenants of the MA Local Food Action Plan.

#### **November 6, 2019, Massachusetts State House, Boston**

**MA Local Food Action Plan focus:** Climate change and the work that's being done in the Massachusetts food system

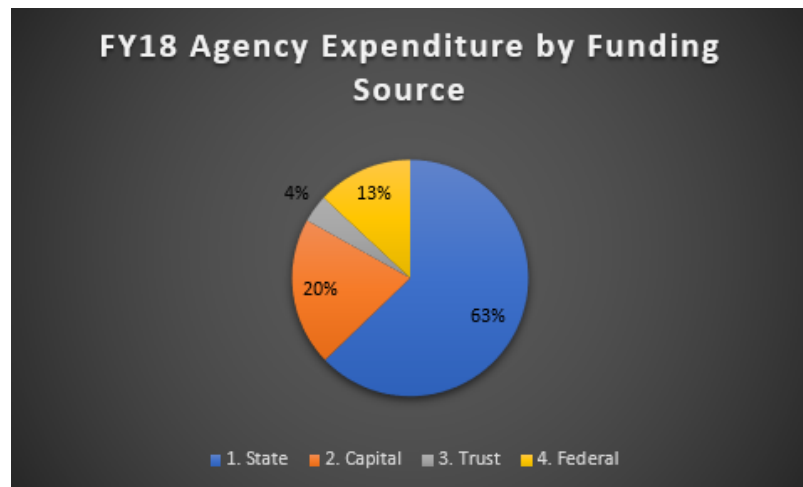
Representative Kane from the MA Food System Caucus summarized activities from the past year including Hunger Action Month activities and communications to the USDA opposing changes in the broad-based requirements for SNAP. The MA Food System Collaborative shared that the HIP program has spent \$3.5M so far in the first quarter out of a \$6.5M budget. Several presentations were given, all focusing on the topic of climate change. UMASS Lowell's Sustainability program shared their innovative partnerships and models to mitigate climate change with institutions, municipal partnerships and food access groups. MDAR highlighted grant and technical assistance programs available to growers that have helped to protect over 70,000 acres of land. Intersections of the MA Solid Waste Master Plan with climate change and the MA Local Food Action Plan was presented by DEP. A recycling works program was critical for a successful rollout of the ban. The agency convened five public hearings on the document (MA Solid Waste Master Plan) across the state and accepted comment through December 6, 2019. Other presentations highlighted the effects of climate change and several programs that are being put in place in order to mitigate its effects. Food is relatable in terms of climate change. Community engagement, improved access to food and space to learn and grow highlights were presented by staff from the North Shore Food Project. Senator Comerford, Chair of the Joint Committee on Public Health, hosted a hearing in Western MA in September with a focus on food as public health.

## Financial Report

**Cullen Roberts, Chief Financial Officer**

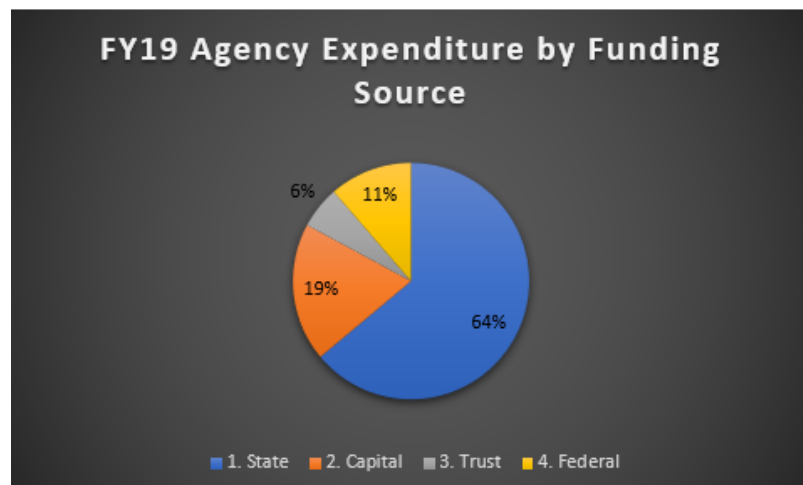
MDAR's FY18 and FY19 expenditures grew by \$1.9M and \$3.6M respectively over FY17. Driving these increases were funding increases in the Massachusetts Emergency Food Assistance Program (2511-0105) as well as the implementation of the Cannabis and Hemp Agricultural Oversight Appropriation (2511-0103) that was established in FY19 as a result of enactment of the 2018 Farm Bill in December 2018 which removed hemp from Schedule I of the Controlled Substances Act.

MDAR spending, as depicted in the charts below, is comprised of approximately 2/3 State appropriated funding with the remaining 1/3 made up of Capital, Trust, and Federal Grant funds.



*Figures in Millions*

	FY18
1. State	\$ 24.0
2. Capital	\$ 7.7
3. Trust	\$ 1.4
4. Federal	\$ 5.0
	<u>\$ 38.1</u>



	FY19
1. State	\$ 25.5
2. Capital	\$ 7.6
3. Trust	\$ 2.3
4. Federal	\$ 4.5
	<u>\$ 39.9</u>

## Budgetary Appropriations

MDAR expended 100% of its budgetary appropriated amounts in FY18 and 99.78% in FY19.

### Administration Appropriation (2511-0100)

The Administration appropriation funds the day-to-day operations of the agency. The General Appropriations Act (GAA) appropriated funding of \$5.895M and \$6.510M in FY18 and FY19 respectively.

Administration appropriation spending by category was as follows:

- Employee salaries and benefits accounted for 79% and 73% of spending in FY18 and FY19
- Earmarks accounted for 16% and 21% of spending in FY18 and FY19

- 1.5% (\$88,000) as part of an annual matching share to the agency's continuing "Pesticide Analytical" grant, to fund lab services with the University of Massachusetts Amherst Pesticide Analysis Laboratory
- The remaining funds supported the agency's day-to-day expenses

#### Cannabis and Hemp Agricultural Oversight Appropriation (2511-0103)

The Cannabis and Hemp Agricultural Oversight appropriation was established in FY19 and funds costs associated with agricultural oversight of hemp and cannabis. The appropriation is funded 100% from the Marijuana Regulation Fund. In FY19, the GAA appropriated \$1,241,466, however \$625,000 was transferred to the FY20 budget through a Prior Appropriation Continued (PAC), leaving an actual FY19 budget of \$616,466. Approximately 50% of the appropriation funds salaries and benefits with another 42% going to fund lab testing services.

#### Supplemental Food Appropriation (2511-0105)

The Supplemental Food appropriation provides for the purchase of supplemental foods for the Massachusetts Emergency Food Assistance Program (MEFAP). FY18 funding of \$17.7M comprised 75% of the agency's state appropriated budgetary funding and provided 22.0 million meals. Similarly, FY19 funding of \$18.4M comprised 72% of the agency's budgetary funding and provided over 22.8 million meals. The agency utilizes 2% of Supplemental Food funding to administer the program. MDAR contracts with the Greater Boston Food Bank, which is responsible for the distribution of a percentage of funds earmarked for other Massachusetts food banks under a contractual agreement.

#### Integrated Pest Management Appropriation (2511-3002)

The Integrated Pest Management (IPM) program was funded at \$58,722 and \$62,549 in FY18 and FY19 respectively. The IPM program has never recovered from the pre-recession period. IPM account funding was 80% less when compared to fiscal year 2008 funding level of \$303,000. The funding reduction has impacted the agency's ability to meet its statutory requirements under Chapter 85 of the Acts of 2000 ("Act to Protect Children and Families from Harmful Pesticides") and MGL Chapter 132B (Massachusetts Pesticide Control Act).

#### Capital Accounts

In both fiscal years 2018 and 2019 the agency had a capital (bond) allocation of \$7.7M. While 100% was expended in FY18, \$6.6M (85%) was expended in FY19. Capital funded programs include the Agricultural Environmental Enhancement Program (AEEP), Agricultural Preservation Restriction (APR) Program, Farm Viability Enhancement Program (FVEP), Agricultural Climate Resilience Enhancement (ACRE) Program, Urban Agriculture, Agricultural Food Safety Improvement Program (AFSIP) and the Mass. Food Venture Program.

#### Federal Funds

MDAR expended \$9.527M in federal grant funds collectively in fiscal year 2018 and 2019. The federal Farm and Ranch Lands Protection grant was the largest component of the agency's federal funding, comprising 34% of the total. This grant is utilized to fund a variety of MDAR programs, including the APR program, the APR Improvement Program, Ag Business Training, the Agricultural Energy Program and the Matching Enterprise Grant Program. Other large federal grants include the Farmers Market (Senior) Coupon Program and Food (Produce) Safety which had collective expenditures in FY18 and FY19 of \$2.0M and \$1.5M.

## Trust Funds

Trust funds averaged 4.8% of agency spending over the two-year fiscal period totaling \$3.8M. The primary trust accounts from which spending occurred were the Alternative Compliance Payment Expendable Trust (54%), Homeless Animal Prevention and Care Fund (17%), and Dairy Promotion Trust Fund (12%).

## Revenue

MDAR collects 29 different fees, ranging from pesticide applicator and milk dealer licenses to nursery and greenhouse inspection fees. The decline in revenue seen in FY19 (in the table below) is due to a new online renewal and product registration portal that was introduced in 2019. Applicants were granted an extension due to the complexities of the new system and the shortfall of revenue in FY19 is expected to be offset with a subsequent increase in FY20.

Year	Revenue
2012	\$ 5,633,212
2013	\$ 5,856,068
2014	\$ 6,168,928
2015	\$ 6,244,822
2016	\$ 6,291,262
2017	\$ 6,651,526
2018	\$ 6,563,048
2019	\$ 5,093,355

## Produce Safety Division

**Michael Botelho**

### Food Safety Modernization Act and The Produce Safety Rule

The FDA Food Safety Modernization Act (FSMA), signed into law by President Obama on January 4, 2011 enables FDA to better protect public health by strengthening the food safety system. It enables FDA to focus more on preventing food safety problems rather than relying primarily on reacting to problems after they occur. The law also provides FDA with new enforcement authorities designed to achieve higher rates of compliance with prevention and risk-based food safety standards and to better respond to and contain problems when they do occur. The law also gives FDA important new tools to hold imported foods to the same standards as domestic foods and directs FDA to build an integrated national food safety system in partnership with state and local authorities.

FDA has finalized seven major rules to implement FSMA, recognizing that ensuring the safety of the food supply is a shared responsibility among many different points in the global supply chain for both human and animal food. The FSMA rules are designed to make clear specific actions that must be taken at each of these points to prevent contamination.

The Produce Safety Rule (PSR) is one of these seven rules to implement FSMA, and establishes, for the first time, science based minimum standards for the safe growing, harvesting, packing, and holding of fruits and vegetables for human consumption. The standards apply to fruits and vegetables normally consumed raw ("covered produce"), such as apples, carrots, lettuce, onions, and tomatoes. The PSR does not apply to produce rarely consumed raw (such as winter squash or potatoes) or produce grown for personal consumption. Overall, The Rule establishes standards for Agricultural Water, Biological Soil Amendments of Animal Origin, Health and Hygiene, Domesticated and Wild Animals, Equipment/Tools/Buildings, Training, and Sprouts.

After adopting the Produce Safety Rule in its entirety as state statute and obtaining the regulatory authority to deploy a produce inspection program, MDAR now serves as the lead agency in Massachusetts and primary produce safety partner with the FDA. Inspections in Massachusetts will use an "educate before and while we regulate" approach incorporating rule and practice clarification during the inspection process. The focus of any initial visits to the farm will be educational in nature and are designed that a clear understanding of the requirements of the rule is shared between program staff and the farm. MDAR's third-party food safety audit program, the Commonwealth Quality Program (CQP), also doubles as an effective mock-inspection preparedness tool.

With a full team staffed and new established program office space, 2019 served as the initial year for PSR inspections in Massachusetts. Farms categorized as "Large Covered Farms" (farms that grow "covered produce" and generate \$500,000+ in produce sales) fell into eligibility for this initial round. With a combination of previous years' audits, extensive technical assistance, and multiple offerings of the Produce Safety Alliance's Grower Training course (jointly taught by MDAR and the University of Massachusetts Extension Vegetable Program), Massachusetts farms were ready and prepared. 2019 proved successful, as MDAR's produce safety inspectors combined to successfully complete 60 PSR inspections on 59 farms while educating many more in the process.

### Commonwealth Quality Program (CQP)

Commonwealth Quality, a program designed by the Massachusetts Department of Agricultural Resources, serves to identify locally sourced products that are grown, harvested, and processed in Massachusetts using practices that are safe, sustainable, and environmentally friendly. Commonwealth Quality-certified growers, producers, harvesters, and processors not only meet stringent federal, state, and local regulatory requirements, but also employ best management practices and production standards that ensure consumers receive the most

safe and wholesome products available. Upon completion of a successful audit, the farm will receive a certificate verifying compliance with best management practices and good agricultural practices based on the standards of the Commonwealth Quality Program. This certificate can be presented to wholesale buyers and customers as proof of meeting third-party audit requirements for ensuring safe and sustainable products. CQP is currently offered for three sectors:

- Produce: Commonwealth Quality for fresh produce requires that farmers employ food safety standards that minimize the risk of microbial contamination and food-borne illnesses for fruits and vegetables grown, harvested, and packed in Massachusetts. This is accomplished through adherence to food safety requirements laid out in the Food Safety Modernization Act's Produce Safety Rule and regional good agricultural practices. Farms that wish to join CQP must comply with strict requirements regarding employee training and hygiene practices and responsibly manage their facilities, agricultural water, soil amendments, and wildlife to ensure only the safest products are available to consumers.
- Cranberries: Commonwealth Quality for cranberries serves to certify locally sourced fruit that is grown, harvested, and packed in Massachusetts. To qualify for CQP certification, Massachusetts cranberry growers must adopt and maintain program requirements that include practices specific to the safe production, harvest, storage, and marketing of fresh fruit from bogs and screen houses in Massachusetts. Program requirements for cranberries include farm food safety practices and standards as well as practices designed to reduce the environmental impact of cranberry production.
- Maple: Commonwealth Quality certified sugar-makers follow the strictest food safety standards and take steps to ensure that their work in the sugarbush ensures the long term sustainability of the forests they steward and trees they tap here in Massachusetts. Participation in CQP ensures that sugar-makers are using high-quality equipment that is designed to process, handle, and store their products safely. Maple producers follow best management practices to ensure that only pure maple syrup goes into their jugs, and they routinely test their water, equipment, and products for any contaminants. Sugar-makers follow the most stringent standards in every step of production in order to minimize the risk of food borne illness and to provide the highest quality products.

CQP continues to serve an important role in promoting the safe growing, harvesting, packing, and holding of Massachusetts local produce as well as ensuring that fruit and vegetable growers have access to the proper market channels. However, with the acquisition of statutory authority to regulate and inspect produce paired with the integration of the Produce Safety Rule into the CQP standard, audits serve as a necessary tool to provide technical assistance and prepare farms anticipating an inspection at a future time.

The Commonwealth Quality Program currently has a count of 122 produce growers, 24 cranberry producers, and 5 maple producers as active members. A fully staffed 2018 was a successful year for the program, which saw 92 CQP produce audits on 86 farms as well as 15 CQP cranberry audits on Massachusetts bogs. This was followed up by an even more successful 2019, which produced 94 CQP produce audits on 89 different farms, 8 CQP cranberry audits, and the reignition of CQP for maple producers.

## Division of Agricultural Markets

**Mary Jordan, Division Director**

To foster the economic growth of the Commonwealth's domestic and international agricultural markets, the Division of Agricultural Markets offers field expertise in the development and support of innovative market venues, business expansion, grant opportunities, consumer and industry outreach. Through its award-winning *MassGrown & Fresher* initiative, and the Commonwealth Quality Program the Division seeks to cultivate new opportunities for consumers to gain greater access to local agricultural products while endorsing high quality standards for growers and producers. The Agricultural Markets Division works with over 50 agricultural and commodity organizations, the state's agricultural fairs, along with a broad breadth of local, state, and federal level entities.

### Agricultural Event Certification Program

**Rebecca Davidson, Coordinator**

On August 5, 2010, Governor Patrick signed S 2582: An Act Relative to Economic Development Reorganization that provides for the sale of wine from a licensed farm winery at approved agricultural events in Massachusetts. According to the legislation, agricultural events such as Farmers' Markets, fairs and festivals must be approved and certified by the Department of Agricultural Resources before a winery can apply for the appropriate license from the local licensing authority.

In 2018, MDAR processed 213 applications for 98 certified agricultural events. In 2019, MDAR processed 223 applications for 93 certified agricultural events. Close to 80 farm wineries participate in the program each year.

### Culinary Tourism – Savor Massachusetts!

**Bonita Oehlke**

Visits to craft beverage businesses tap and tasting rooms making wine, hard cider, distilled spirits and beer are the fastest growing sector of culinary tourism, led by beer tourists. Culinary tourists also seek farmstead cheese businesses and maple products during farm visits. These Massachusetts businesses attracted culinary tourists from Massachusetts and beyond. Culinary Tourism is a subset of agri-tourism, showcasing distinctive and memorable gastronomic experiences. It fosters valuable connections in the agricultural community with the tourism and hospitality sector that benefits growers and food producers who offer unique culinary experiences.

A new [Massachusetts Craft Beverage](#) web page and searchable database was inaugurated with four categories including: breweries, hard cider, distilled spirits and wineries. Use of farm ingredients is encouraged whenever possible and highlighted in the listings. The highest month of website hits was over 5,000! To complement the new Craft Beverage site, three workshops were held across the state in collaboration with MOTT at Stone Cow Brewery, Barre; Nashoba Valley Winery, Bolton; and Lookout Farm Brewing & Cider Co, South Natick. The focus was to attract culinary tourists to tours, tastings, and tap rooms with a focus on destination marketing. Cross connections between beverage businesses as well as agricultural tourism operations were fostered. The program included success stories from host businesses, panel discussions featuring experienced wine, beer, cider and spirits experts sharing best practices, MA Office of Travel and Tourism's ad agency recommendations on brand development and identifying social media priorities, and resources from craft beverage associations and state agencies MDAR and MOTT. At the same time, a new [economic snapshot Massachusetts craft distilleries](#) was completed, showing continued growth!



Another highlight was a first-time Massachusetts [Chocolate and Confections](#) page, featuring businesses that sell via mail order as well as a retail shop. It was unveiled

MDAR's culinary tourism page included special event information including the Massachusetts Farm Winery and Growers Association summer CRUSH event, Franklin County Cider days, and other festivals relating to a wide range of products.

MDAR promoted the MA Cheese Guild during their Massachusetts Cheese Festival the past two years, and their educational and consumer events for cheese lovers, held throughout the year, as well as listings on MDAR's website.

MDAR worked with the MA Maple Producers Association to coordinate a maple kickoff in March of the past two years, showcasing the first farm product of the season. In 2018, Massachusetts sugar makers produced more than 72,000 gallons of syrup valued at over \$3.8 M. Massachusetts maple producers' sales each year contribute more than \$6 million to the Commonwealth's economy, employ more than 1,000 workers, and steward more than 15,000 acres of woodland.

Maple farmers perpetuate a cherished New England tradition and have a positive impact in Massachusetts on the economy, environment and way of life. Maple weekends were also promoted, featuring restaurants using local syrup. Culinary tourism associated with maple syrup production is important for the revenue generated by maple farms, restaurants, bed and breakfasts, country inns, and other attractions in farm communities.

A booth at the Boston Local Food Festival on the Rose Kennedy Greenway sponsored by the Sustainable Business Network offered a base to promote culinary tourism and MDAR consumer resources to over 30,000 attendees in 2018 and 2019.

Savor Massachusetts offers hundreds of web-based resources for the culinary traveler, growers and chefs, including wine, cheese, hard cider, distillery & brewery "trails", log on to [www.mass.gov/massgrown](http://www.mass.gov/massgrown) and click on Savor Massachusetts!

## Export Market Development

### **Bonita Oehlke**

Selling products internationally has been challenging with changing free trade agreements and tariff swings. The Massachusetts total value of Ag & Related Products (including seafood) was valued at \$869,385,000 in 2018, down 13% from 2017. The value of Processed Food totaled \$273,331,000, about 31% of total exports. Source: USDA/FAS/GATS

Commissioner Lebeaux is a board member of Food Export USA Northeast, a USDA Cooperator, leveraging access to programs and services for Massachusetts food, seafood and agricultural businesses for export market and sales development. Bonita is MDAR's liaison to Food Export. Funding is available through the USDA Farm Bill Market Access Program, administered by Food Export. Small and medium size businesses can receive 50% reimbursement through the Branded Program for eligible expenses such as international marketing and promotion support, trade events and label modification.



Matching awards to Massachusetts companies through the Branded program, facilitated by Food Export, totaled \$828,708 to 37 food businesses in 2018 including 12 seafood companies (receiving 38% of the funds) and \$1,459,443 to 41 businesses in 2019 including 16 seafood companies (receiving 46% of the funds). MDAR has been working with seafood export marketing since 2004. Due to the retaliatory trade tariffs in 2019, Agricultural Trade Promotion Program (ATP) funds were available, offering support for additional Branded Fund awards and new activities including an aquaculture focus, since production has doubled in the past five years. The high-quality, nuanced products have a strong record for food safety. ATP funds were used to host nine international buyers to tour shellfish farms in Massachusetts, and nearby states in 2019, with MDAR as the lead.



Boston was the starting point, with an overview of oyster production methods. Facility tours and tastings followed at Pangea Shellfish, Boston and Island Creek Oysters, Duxbury. An early morning low tide the next day allowed buyers to meet oyster farmers at Mayo Beach in Wellfleet during harvest, with introductions by Nancy Civet, Shellfish Constable. Abigail Archer and Josh Reitsman, Aquaculture Specialists, Barnstable Cooperative Extension, were partners in planning and provided boots for buyers to explore the oyster flats. Facility tours and tastings followed at Wellfleet Shellfish Company, Eastham; Aquaculture Research Corporation, Dennis; Cape Cod Oyster Company, Marstons Mills and an industry - buyer reception featuring oysters shucked by Pangea, Boston; Plymouth Rock Oyster Growers, Plymouth; Wellfleet Shellfish Company, Eastham; and Westport Sea Farms, Westport Point.

Buyers left understanding that this region has a plentiful variety of flavorful, fresh, raw-bar quality oysters, grown by shellfish farmers whose priority is food safety and environmental sustainability.





2019 also featured a first time Massachusetts Avenue at Seafood Expo North America, Boston, organized in partnership with the Division of Marine Fisheries. Eight companies participated: Aquaculture Research Corporation, Dennis; Cape Seafoods, Gloucester; Intershell International, Gloucester; John Nagle, Boston; North Atlantic Pacific Seafood, Gloucester; Pangea, Boston; Plymouth Rock Oysters, Plymouth; and Red's Best, Boston. The USDA funded Branded Program offset 50% of eligible costs for these exhibitors and DMF's Marketing Program provided signage and merchandising. A joint press program at the event included a ribbon cutting.



Besides international trade shows, major US trade events that host international buyers are also eligible. To participate, products promoted must have at least 50% ingredients grown from the US. A wide array of programs and services are available for Massachusetts agricultural, seafood and food businesses, including exporter education, in-country market research, and support at domestic and international trade shows. Buyers Missions offer a low-cost, low-risk opportunity to meet with international buyers. A Buyers Mission was held in Boston each year, followed by missions to national trade

shows including the Summer Fancy Food Show, Natural Products Expo East, and Seafood Expo North America.

MDAR participated in the Export Expo in 2019 and 2019, coordinated by the MA Export Center in Boston. Other partners included the Cranberry Marketing Committee, National Confectioners Association, Brewers Guild, MA Office of International Trade and Investment, and the U.S. Department of Commerce.



## Farmers' Market Program

### David Webber

There were 227 farmers markets in 2019, a decrease of 14 markets from 2017. An additional 46 winter farmers markets were open during the 2019-2020 winter season, down from 53 winter markets in 2017. Despite the slight decrease, farmers markets remain an important marketing outlet for Massachusetts farmers. The number of markets remains more than double from the early 2000's. Massachusetts Farmers' Market Week was held the week first week of August in conjunction with National Farmers Market Week.

### Farmers' Market Annual Numbers

Year	Number of markets	Percent growth	Number of Winter Market	Percent Growth
2004	101	9%	0	0
2005	114	13%	0	0
2006	126	11%	0	0
2007	139	10%	0	0
2008	167	20%	0	0
2009	203	22%	6	600%
2010	233	15%	18	200%
2011	250	7%	35	94%
2012	254	2%	40	13%
2013	249	-2%	41	2.5%
2014	251	.50%	43	5%
2015	256	2%	43	0%
2016	247	-4%	47	9%
2017	240	-3%	53	13%
2018	241	.5%	53	0%
2019	227	-6%	46	-13%

### Farmers' Market Resources

MDAR maintains a comprehensive library of farmers' market resources on its website for market managers and farmers. A list of farmers' markets with their days, times, and locations can be found along with a crop availability guide, shopping and produce storage tips, healthy recipes, and nutrition information on the Department's consumer website, [mass.gov/massgrown](http://mass.gov/massgrown).

A Farmers' Market Managers Workshop was held in Sturbridge on February 27 in conjunction with the Harvest New England Agricultural Marketing Conference and Trade Show. Co-sponsored by Massachusetts Farmers Markets, the Cooperative Development Institute, and Harvest New England, the workshop attracted market managers primarily from Massachusetts along with managers from the other New England states.

## SNAP/EBT Use at Farmers' Markets/Direct Marketing Farmers – Healthy Incentives Program

**David Webber**

Increasing access to farmers' markets and farmers by SNAP participants continues to be a priority. The number of farmers and farmers' markets accepting EBT/SNAP continued to grow from 410 in Federal fiscal year 2017 to 458 in FY 2018. SNAP redemption at farmers' markets and direct marketing farmers grew from \$470,505 to \$4,145,828 during the same time period, due largely to the Healthy Incentives Program which began in April, 2017.

MDAR continues to collaborate with the Department of Transitional Assistance on the Food Insecurity and Nutrition Incentive Grant Program with implementation of the statewide Healthy Incentives Program. The Healthy Incentive Program (HIP) matches SNAP recipients purchases on fruits and vegetables from farmers markets, farm stands, CSA's and mobile markets and instantly applies the credit back to the participants' EBT card, up to \$40, \$60 or \$80 month.

## Federal - State Marketing Improvement Program (FSMIP) Grant Program

**Rebecca Davidson**

*FSMIP is designed to assist in exploring new market opportunities for U.S. food and agricultural products, and to encourage research and innovation aimed at improving the efficiency and performance of the U.S. marketing system.*

FSMIP funds a wide range of applied research projects that address barriers, challenges, and opportunities in marketing, transporting, and distributing U.S. food and agricultural products domestically and internationally. Eligible agricultural categories include livestock, livestock products, food and feed crops, fish and shellfish, horticulture, viticulture, apiary, and forest products and processed or manufactured products derived from such commodities. Reflecting the growing diversity of U.S. agriculture, in recent years, FSMIP has funded projects dealing with nutraceuticals, bioenergy, compost and products made from agricultural residue.

Proposals may deal with barriers, challenges or opportunities manifesting at any stage of the marketing chain including direct, wholesale, and retail. Proposals may involve small, medium or large scale agricultural entities but should potentially benefit multiple producers or agribusinesses. Proprietary proposals that benefit one business or individual will not be considered.

Proposals that address issues of importance at the State, multi-State, or national level are appropriate for FSMIP. FSMIP also seeks unique proposals on a smaller scale that may serve as pilot projects or case studies useful as models for others.

Of particular interest are proposals that reflect a collaborative approach between the States, academia, the farm sector and other appropriate entities and stakeholders.

For more information on the FSMIP program please refer to:

<http://www.mass.gov/agr/markets/fsmip.htm>

<http://www.ams.usda.gov/AMSV1.0/FSMIP>

### 2019 Grant Award Project:

In 2019, \$86,187.35 was awarded to the Massachusetts Department of Agricultural Resources, to explore the feasibility of a Massachusetts shared-use dairy processing facility. The purpose of the project is to increase profit margins for Massachusetts Dairy Farmers by increasing processing opportunities for dairy farmers, specifically through shared-use processing. This project began in September 2019 and is scheduled to be completed in September 2022.

### 2015 Project Completed:

In 2015, \$44,297 was awarded to the Massachusetts Department of Agricultural Resources, in partnership with Community Involved in Sustaining Agriculture, to evaluate the effectiveness of an on-line ordering system that will enable wholesale buyers to order Massachusetts farm products, improving marketing efficiency and supporting the growth of sales of locally grown products. This project began in September 2015 and was completed in March 2018.

### Farmers' Market Nutrition Program

**Rebecca Davidson**

In 2018 the USDA FNS awarded Massachusetts with \$484,469.00 in federal food dollars to distribute to low income elders along with \$53,830.00 to use to administer the program state-wide. In 2018, 24,768 Massachusetts seniors and disabled individuals participated in the program compared with 23,925 in 2017. Participating elders received a benefit of \$25 per person for the 2018 growing season. 72.8% of issued coupons were redeemed at Massachusetts farmers markets and farmstands. This figure is slightly lower than the 74.5% redemption rate in 2017. In 2018, the program utilized 97.4% of the USDA 2018 Food Allocation, as compared to 99.2% of the 2016 Food Allocation. The Senior FMNP home bound delivery program served 2,482 seniors in 2018 throughout the Commonwealth of Massachusetts. 26 Elder Nutrition Programs distributed coupons and produce to seniors and disabled individuals across the state of Massachusetts.

In 2018, The USDA FNS awarded Massachusetts with \$489,397 in federal food dollars to distribute to participants in the WIC (Women, Infants and Children) program. The 2018 WIC Farmers' Market Nutrition Program (FMNP) served 43,990 women, children, and infants over 6 months with coupons to buy fresh produce at farmers markets, which is an increase from the 31,681 served in 2017. 50.8% of WIC FMNP coupons were spent at farmers' markets and farmstand vendors. That figure is down almost 5% when compared to last year's 55.7%. Nevertheless, the program utilized 91.4% of the USDA FNS 2018 allocated food dollars, which is a significant increase from the 81.3% utilization rate of the USDA FNS 2017 allocated food dollars. Participants received a benefit of \$20 per person for the 2018 growing season.

The program certified 213 farmers' markets, 59 farm stands, and 451 growers to serve the recipients of the Senior and WIC Farmers Market Nutrition Programs.

**Overall, these funds successfully allowed for the purchase of \$919,031.00 worth of fresh, local produce, which represents a 11% increase from 2017.**

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In 2019 the USDA FNS awarded Massachusetts with \$480,974.00 in federal food dollars to distribute to low income elders along with \$53,442.00 to use to administer the program state-wide. In 2019, 24,231 Massachusetts seniors and disabled individuals participated in the program compared with 24,768 in 2018. Participating elders received a benefit of \$25 per person for the 2018 growing season. 76.2% of issued coupons were redeemed at Massachusetts farmers markets and farm stands. This figure is significantly higher than the 72.8% redemption rate in 2018. In 2019, the program utilized 100% of the USDA 2019 Food Allocation, as compared to 97.4% of the 2018 Food Allocation. The Senior FMNP home bound delivery program served 2,659 seniors in 2019 throughout the Commonwealth of Massachusetts. 26 Elder Nutrition Programs distributed coupons and produce to seniors and disabled individuals across the state of Massachusetts.

In 2019, The USDA FNS awarded Massachusetts with \$475,351 in federal food dollars to distribute to participants in the WIC (Women, Infants and Children) program. The 2019 WIC Farmers' Market Nutrition Program (FMNP) served 35,843 women, children, and infants over 6 months with coupons to buy fresh produce at farmers markets, which is a decrease from the 43,990 served in 2018. This decrease is due to an increase in the benefit level from \$20 to \$25 per participant. 55.8 of WIC FMNP coupons were spent at farmers' markets and farm stand vendors. That figure is up 5% when compared to last year's 50.8%. In

addition, the program utilized 105% of the USDA FNS 2019 allocated food dollars, which is a significant increase from the 91.4% utilization rate of the USDA FNS 2018 allocated food dollars. Participants received a benefit of \$25 per person for the 2018 growing season.

The program certified 205 farmers' markets, 93 farm stands, and 490 growers to serve the recipients of the Senior and WIC Farmers Market Nutrition Programs.

Overall, these funds successfully allowed for the purchase of \$982,422.00 worth of fresh, local produce, which represents a 7% increase from 2018.

## 2018/2019 Massachusetts Fairs Annual Report

**Fran Pearson, Agricultural Fairs Coordinator**



From the Berkshires to Cape Cod, Massachusetts boasts 37 agricultural fairs that offer exceptional local products, farm animal exhibits, horse shows, artisan crafts, fruit & vegetable displays, 4-H competitions, children's activities - and lots of fun for the whole family!

In 2018 and 2019, Commissioner Lebeaux, Deputy Commissioner Ashley Randle (2019) along with staff traveled throughout the commonwealth to visit approximately 90% of the states 37 agricultural fairs. MDAR staff worked closely with the officers of the Massachusetts Agricultural Fairs Association (MAFA) by attending Board meetings as well as assisting with program ideas.

MDAR Marketing staff published a comprehensive list of agricultural fairs that was promoted on the Massachusetts Grown & Fresher website ([mass.gov/massgrown](http://mass.gov/massgrown)). State Rosettes were given to fairs upon request and used to recognize excellence for "Best in Show."

When funding is available, MDAR allots monies to agricultural fairs and supports 4-H activities at National Competitions.



## Massachusetts Building- 2018 Annual Report

### Fran Pearson, Building Manager

Eastern States Exposition (The Big E) is an annual event that takes place in West Springfield, MA for 17 days and draws over 1.5 million people. The Massachusetts Building located on the Avenue of States, provides Massachusetts businesses, non-profits, and other entities an opportunity to showcase their products and services through an annual application process.

The Massachusetts Building received 45 applications from interested exhibitors; 34 were accepted.

- 7 *Informational* Government Agencies
- 3 *Informational* Non-profit/Commodity Groups
- 6 *Food* Non-profit/Commodity Groups
- 11 *Food* For-Profit Vendors
- 7 *Non-Food* For Profit Vendors

New exhibitors included:

Hardwick Vineyards & Winery- Hardwick, MA  
I'm NOT Gonna Get "Ticked"-Lenox, MA  
Main Street Deli- Agawam, MA  
Sassy Sweet Potatoes- Thorndike, MA  
Valley Malt- Hadley, MA

All five were positive additions to the building and were well received by the public. Although many exhibitors return annually and are fairgoer favorites, introducing a few new exhibitors every year keeps the building relevant and exciting.

Capitalizing on the energy of the fair, the Massachusetts Building participated in three special event days: Military Appreciation Day, Massachusetts Day and Harvest New England Day.



### Military Day

As in past years, on Military Day two fire trucks from the Holyoke and Springfield Fire Departments suspended a large American Flag over the front lawn in celebration of Massachusetts' veterans. A special thank you to Francisco A. Ureña, Massachusetts Secretary of Veteran's Affairs for participating in the speaking program. In addition, agencies representing veteran services set up under tents on the front lawn for the opportunity to connect with veterans and their families.

### Massachusetts Day

Massachusetts Day featured a short speaking program in the morning; Commissioner John Lebeaux took the opportunity to welcome state agencies and government officials. At that time, the 2018 recipient of the Massachusetts Building Wall of Fame award was announced, a longtime exhibitor and former member of the Massachusetts Building Advisory Committee, Mitchell Garabedian. Fourteen exhibitors set up on the front and side lawns to sample products, sell goods and conduct outreach.







## Harvest New England Day

Massachusetts Building celebrated Harvest New England Day again this year by inviting food and fiber exhibitors to set up on the front lawn and encouraging fairgoers to participate in the passport program. Fairgoers could earn a Harvest New England tote bag by visiting each state and grange building and answering a series of agriculture related quiz questions.

Bonita Oehlke and Phu Mai played key roles in coordinating Harvest New England Day and Military, Massachusetts Day respectively. All three special event days provided the opportunity to showcase additional exhibitors and offer the fairgoer an exciting experience.

A special thank you to Law Enforcement Torch Run for Special Olympics of Massachusetts for participating in Special Olympic Day.

The center hall featured a display celebrating Plymouth MA 400th anniversary in 2020. An interactive display allowed fairgoers to follow 400 Years of Wampanoag History.

The mission of the Massachusetts State Exposition Building Advisory Committee is to enhance the Massachusetts State Exposition Building as a self-sustaining facility that showcases the diversity of Massachusetts agriculture, commerce, food and tourism.

The building's Advisory Committee met three times in 2018; once in May to review applications, again during the fair to evaluate the vendors and in December to review the fair. Under the committee terms, members serve three year terms and are selected to represent specific areas of interest. The eight Advisory Committee members represent: Mass. Agricultural Fairs Association, agricultural commodity groups, for-profit building exhibitors, economic development, travel and tourism, Eastern States Exposition, Mass. Eastern States Exposition Trustees, and Mass. academic institutions. The new structure of the Building Advisory Committee members started in December with a rate of two to three members changing per year.

The Big E Fair continues to be an excellent venue to showcase New England's heritage, agriculture, industry, education and family entertainment. The Massachusetts State Exposition Building, being the first on the Avenue of States, closely mirrors the fair's mission and is committed to showcasing Massachusetts agriculture, industry, culture and tourism for the benefit of the Commonwealth and the enjoyment of the fairgoers.

## 2019 Massachusetts Building Annual Report

**Fran Pearson, Building Manager**

100 years ago, on September 16, 1919, Governor Calvin Coolidge sent his Lt. Governor Channing H. Cox to dedicate the building after its construction by ESE founder Joshua Brooks. Although the country was at war in 1918, Brooks was able to convince the Massachusetts legislature to spend \$50,000 to erect the Massachusetts Exposition Building— an almost perfect replica of the old Massachusetts Statehouse located in Boston. The mission of the building is to showcase agriculture, commerce, culture and tourism and the completion of the building launched the Avenue of States, a beloved attraction at the annual Big E fair.





In 2019, the Massachusetts Building received a total of 48 applications from prospective exhibitors; overall 40 were accepted. Of the total 40- 10 new businesses were added.

They included:

Amazon- Northampton, MA  
B-Organic Produce Bags-Worcester, MA  
Jay's Wicked Gourmet- Ware, MA  
Mass. Nursery & Landscaping Association- Conway, MA  
My Main Squeeze- East Longmeadow, MA  
Rick's Hand Crafted Corn Hole Boards- Palmer, MA  
Smith's Farmstead Cheese- Winchendon, MA  
Springfield Museums – Springfield, MA  
Springfield Thunderbirds- Springfield, MA  
Wise Mouth Tea Company- North Attleboro, MA

Exhibitor breakdown:

6 *Informational* Government Agencies  
2 *Informational* Non-profit/Commodity Groups  
6 *Food* Non-profit/Commodity Groups  
15 *Food* For-Profit Vendors  
11 *Non-Food* For Profit Vendors

**2019 Attendance total: 1,629,527**

Capitalizing on the energy of the fair, the Massachusetts Building participated in four special event days: Military Appreciation Day, Rededication Day, Massachusetts Day and Harvest New England Day.

### **Military Appreciation Day**

As in past years, on opening day the Massachusetts Building displayed two fire trucks from the Holyoke and Springfield Fire Departments which suspended a large American Flag over the front lawn in recognition of Massachusetts' veterans. Additionally, veteran service agencies set up under tents on the front lawn for the opportunity to connect with veterans and their families



### **Rededication Day**

On Monday, September 16, 2019, Lt. Governor Polito joined by Department of Agricultural Resources (DAR) Commissioner Lebeaux, Eastern States Exposition (ESE) President Gene Cassidy and over a dozen state and local officials in the centennial rededication ceremony of the Massachusetts State Exposition building. The rededication ceremony included a speaking program, a celebratory toast with a choice of cider, cranberry juice or milk and the dedication of a bronze plaque presented by ESE in memoriam of the building's 100 year anniversary. The Massachusetts Building 100th anniversary time capsule was launched and several dignitaries added items to the capsule. Lt. Governor contributed an autographed mini model of the Massachusetts Building.

Fairgoers celebrated the day with free family fun events and giveaways. These included a 16 foot replica mountain from Wachusett Mountain, a shooting rink from Springfield Thunderbirds, Winter Wonderland display from Southwick Zoo, Amazon, New England Dairy Promotion Board, Sport pictures from I Love Boston Sports, a DJ and a Magician, square dancers and youth performances as well as visits from Smokey the Bear, Dr. Seuss and Boomer from Springfield Thunderbirds.

With the assistance and generosity of our exhibitors, along with monies from an earmark, we were able to provide fairgoers with a giveaway every day of the 2019 fair.

### **Massachusetts Day**

Massachusetts Day featured a “Taste of Massachusetts” Reception followed by a brief speaking program during which Keiko Orrall, Executive Director for the Massachusetts Office of Travel and Tourism concluded with a presentation of a 2019 Massachusetts Day Proclamation to Eastern States Exposition Director of Ag and Education, Donna Woolam who accepted on behalf of President and CEO, Gene Cassidy.

During the ceremony the 2019 recipient of the Massachusetts Building Wall of Fame award was presented to Mary Jordan from MDAR in recognition of her efforts over the years as building manager. The 2020 Massachusetts Ag Calendar was unveiled and the photo winners were recognized.

Fourteen exhibitors set up on the front and side lawns to sample products, sell goods and conduct outreach.



### **Harvest New England Day**

Massachusetts celebrated Harvest New England Day again this year by inviting food and fiber exhibitors to set up on the front lawn and encouraging fairgoers to participate in the passport program. Fairgoers could earn a Harvest New England tote bag by visiting each state and grange building and answering a series of agriculture related quiz questions.

A special thank you to MDAR staff Katie Rozenas, Mary Jordan, Deputy Commissioner Ashley Randle, Rick Leblanc, Laurie Rocco, Howie Vinton, Phu Mai, Bonita Oehlke, Ali Lopez-Swetland and Barbara Hobson for all their assistance in a variety of ways to make the 2019 celebration a success.

The center hall featured displays by the Dr. Seuss, Eric Karl and Norman Rockwell Museums. The interactive display allowed fairgoers to take pictures with nostalgic childhood characters such as the Cat in the Hat, the Hungry Caterpillar and Norman Rockwell painting of the Runaway.

The Big E Fair continues to be an excellent venue to showcase New England’s heritage, agriculture, industry, education and family entertainment.



At the Big E on Massachusetts Day, September 19, 2019, Commissioner Lebeaux Presents MAC Calendar Contest Winner Laurie Cuevas with a Certificate for Her Honorable Mention Photo for the Month of February 2020

## Agricultural Education Report 2018/2019

### Phu Mai, Agricultural Education Coordinator

In Massachusetts, interest in agricultural education on the secondary school level has now attracted vocational schools to offer more agricultural programs in their course of studies. For example, within the past year, Franklin County Technical School in Turners Falls began offering vocations in Animal Veterinary Science. Many other vocational and technical schools also offer a Landscaping and Horticulture track as well including Franklin County Tech, Cape Cod Tech, Upper Cape Cod Regional Tech, Greater Lawrence Regional Tech, J.P.Keefe Regional Tech (in Framingham), Minuteman Regional School (in Lexington), Pathfinder Regional Vocational Tech (in Palmer), and South Shore Regional Tech. The expansion of these curriculum is proof that that demand exists for this kind of coursework which will educate our youth with critical agricultural and vocational skills they will use to become the next generation of farmers in the Commonwealth and beyond.

Enrollment at the four Agricultural High Schools in the Commonwealth over the past two academic years has shown an overall slight increase in student enrollment. These highly specialized public secondary schools provide the future generation of Massachusetts farmers with the knowledge and skillset they will need in order to be successful in the agricultural sector, whether it's learning about farm machinery to animal husbandry.

#### **Student Enrollment at the four Ag High Schools**

Bristol	Norfolk	Essex	Smith
(2017-18) 456	(2017-18) 550	(2017-18) 1,382	(2017-18) 498
(2018-19) 454	(2018-19) 557	(2018-19) 1,413	(2018-19) 495

Agricultural Education Youth Organizations continue to be a popular outlet for students with the Massachusetts Chapters of the FFA and 4-H Club. Both groups not only emphasize the agricultural heritage of their past but also look to the future and impart relevant real-life skills which will serve members well as they come of age and enter society as responsible young adults. There are currently 18 FFA chapters in Massachusetts with over a total membership of over 2,100 students. 4-H clubs serve over 22,000 youths in Massachusetts ages 5-19 with the help of more than 2,100 adult volunteers.

Both organizations have had good opportunities over the years to work with other relevant agricultural organizations such as the Massachusetts Farm Bureau in assisting with the logistics of the annual Agriculture Day at the State House. There exists more opportunities to ensure that these youth organizations remain engaged and can partner with other specialized agricultural groups so that members can participate in and experience how decisions and policies are made and enacted that will have a profound effect on the state of our agricultural sector.

Massachusetts Agriculture in the Classroom (MAC) is another organization that has worked with MDAR in furthering agricultural education in elementary and secondary schools. In addition to providing grants to teachers, MAC has partnered with MDAR for the past 20 years in producing a physical calendar filled with Massachusetts farming landscape photos (all selected via an amateur photography contest) along with agricultural lesson plans for teachers to utilize. Each month is sponsored by a specific Massachusetts agricultural organization including the MA Grange, MA Farm Bureau, MA Flowers Growers Association, MA Maple Association, MA Agricultural Fairs Association, Cape Cod Cranberry Growers Association, MA Fruit Growers and MA Christmas Tree Growers Association. For 2019, 3000 calendars were produced that will be sold or distributed to teachers and the general public.

As a means of promotion and awareness, MDAR maintains an Agriculture Education website (<https://www.mass.gov/service-details/agriculture-education>) that lists links to multiple educational organizations and resources throughout the Commonwealth geared towards teachers and educators, students and the general public with ways to volunteer and be involved as well.





FFA and 4-H Students Pose for a Photo with Governor Charlie Baker and MDAR Commissioner John Lebeaux During Agriculture Day at the State House, March 27, 2019

## Agricultural Tourism Report 2018/2019

### **Phu Mai, Agritourism Coordinator**

Agritourism in Massachusetts continues to be a viable and successful way for farmers to increase their cash receipts by providing an experiential and memorable mode of programming to the consumer. In recent years, this trend has received the media attention, prompting a Boston Globe article in Fall 2018 titled, “Instagram + Farms: How Tourists Fertilize Local Agriculture” which covered the importance of agritourism for small farms (which make up the majority of farms in Massachusetts) and the role that social media plays in helping to promote their brand to drive foot traffic to their farms. Social media has been a significant factor in driving agritourism. With limited time and budgets, platforms such as Facebook and Instagram provide farms with real-time marketing strategies to directly engage with the public. MDAR has utilized these platforms as well to promote Mass Grown and Fresher resources including our own agritourism map which was made mobile friendly in 2018 so that people can access the map from their smart devices. MDAR social media pages have amassed thousands of followers, page views and “likes” since they have gone live. Agritourism has helped drive the “Buy Local” movement to propel it from a trend to a lifestyle.

In 2019, the USDA released their 2017 Census of Agriculture which contained updated information on the state of agritourism in the United States. Relevant Information from the Census has been broken down as follows:



## Agritourism Snapshot from 2017 Ag Census

### National Level

1. -U.S. agri-tourism had 28,575 farms in 2017-> down from 33,161 farms in 2012 (-14%)
2. -U.S. agri-tourism was valued at \$949,323,000 in 2017-> up from \$704,038,000 in 2012 (+35%)
3. -U.S. agri-tourism: average farm value in 2017 among participating farms in agri-tourism was \$33,222-> up from 2012 which was \$21,231 among participating farms (+56%)

### State Level

1. -In 2012, MA was the 5th highest state in the U.S. for agri-tourism value per farm among participating farms (#1 New England state)
2. -In 2017, MA was the 8th highest state in the U.S. for agri-tourism value per farm among participating farms (#2 New England state behind CT. CT has made big strides and is #2 overall in the nation now, so perhaps there are lessons to be learned from them)
3. -MA dropped in this per farm stat national ranking but still gained 34% in average per farm value among participating farms, so this overall positive.
4. Number of farms participating in agri-tourism: 240 farms (287 farms participated in 2012-> decrease 16.27%)
5. Total MA income from agri-tourism: \$13,476,000 (\$12,034 income in 2012 -> 11.89%)
6. Average per farm income from agri-tourism among farms who participated in agri-tourism: \$56,150 (\$41,929 income in 2012 -> increase 33.91%)

In 2020, a Agritourism Study Commission will convene to better define agritourism in Massachusetts and look at best practices in other states as it relates to agritourism initiatives. Most importantly, they will make recommendations as to how the Commonwealth of Massachusetts can be even more amicable towards farms that wish to start or expand their agritourism programming. MDAR, will always be supportive of agritourism initiatives and programming as it recognizes the economic benefit to Massachusetts farmers.



Tougas Farm in October 2018 when Pick Your Own Apples and Pumpkins Operations are in Full Swing

## The Farm and Market Report

### Rick LeBlanc

MDAR's bimonthly e-newsletter continues to be the Dept.'s tool to disseminate MDAR information and updates throughout the year. It includes the Commissioner's Column, program and grant updates, workshop and educational updates, USDA News, along with a Calendar and Classified section. It is distributed via email to the agricultural community in Massachusetts and has over 7500 subscribers.

We encourage anyone looking for Massachusetts news related to agriculture, to subscribe by sending a request to Rick LeBlanc at [Richard.LeBlanc@mass.gov](mailto:Richard.LeBlanc@mass.gov).



**"MassGrown & Fresher" Program** – We continue to brand and offer the "MassGrown & Fresher" logo to farms across the Commonwealth. We offer posters, stickers and price cards. Details here: [www.mass.gov/service-details/massachusetts-grown-and-fresher-logo-and-marketing-materials](http://www.mass.gov/service-details/massachusetts-grown-and-fresher-logo-and-marketing-materials).



**"MassGrown & Fresher" webpage:** [www.Mass.gov/Massgrown](http://www.Mass.gov/Massgrown). This portal website continues to be a great source for the public to learn more about, and where to find farms in Massachusetts. It includes timely links, updates, and a *Culinary and Ag-tivities* calendar. The MassGrown Map continues to be the top visited webpage with MDAR. It maps the many categories and types of farms, as well as farmers markets and agricultural fairs. We continue to promote it thru social media, eblasts, and at booths at the annual Big E, and the Boston Flower and Garden Show.



## Division of Animal Health

Michael Cahill, Division Director

The Division of Animal Health's focus is preventing the introduction or spread of infectious and contagious diseases of domestic animals. This is accomplished through the imposition of health certification, testing and vaccination requirements for animals being imported, transferred within, or simply residing in Massachusetts. Since the level of care an animal receives from its owner can have a direct effect on its immune system and the animal's susceptibility to illness, animal welfare is an integral component of disease prevention. By partnering with federal, state and municipal agencies, the Division of Animal Health works to promote and safeguard animal health and welfare in the Commonwealth. Regulating certain animal-related agricultural activities, which may include the inspection, examination, and licensing of both food-producing and companion animals, provides additional oversight where there may be increased risk to animal or human health. The Division licenses, inspects, or registers dairy farms (both raw and pasteurized producers), commercial cattle, poultry, and swine operations, as well as race horses and equine riding stables, pet shops, and animal rescue shelters. Additionally, the Division prepares emergency response plans for disease outbreaks in livestock or poultry, and emergency sheltering plans for companion animals affected by natural disasters or other emergencies. Further, the Division is also responsible for providing training to municipal animal control officers, on these and other related matters.

The Division is comprised of 20 full time employees, including a veterinarian, program managers, inspectors, and administrative support staff. Division personnel work within several programs with funding provided by the United States Department of Agriculture through cooperative agreements (see table below). This financial support allows the Division to continue important disease surveillance and response efforts by maintaining or even increasing staff levels even when the Commonwealth's budgetary constraints threaten to hinder these necessary activities.

For 2018 and 2019:

Cooperative Agreement	2018 FUNDING	2019 FUNDING
<i>Animal Disease Traceability</i>	\$56,462	\$55,462
<i>Active and Passive Surveillance for the avian program (formerly Notifiable Avian Influenza) and Annual Livestock Inventory (Barn Book) Data Entry</i>	\$86,888	\$60,863
<i>Foreign Animal Disease Prevention (including Scrapie Prevention Program)</i>	\$20,437	
<i>Swine Garbage Feeding Surveillance</i>	\$28,101	
<i>All Non-Avian Foreign Animal Disease (including Small Ruminant, Bovine, Swine, One Health)</i>		\$66,864

### PROGRAM LISTING

- Animal Disease Traceability Program
- Animal Imports and Livestock Markets
- Animal Shelter and Rescue Program
- Dairy Program
- Equine Program
- Homeless Animal Prevention and Care Fund Program (Mass Animal Fund)
- Municipal Animal Inspection Program



- Pet Shop Licensing and Inspection Program
- Poultry Program
- Rabies Control Program
- Reportable Disease Program
- Swine Program

## Animal Imports and Livestock Markets / Animal Disease Traceability

### Esther Wegman, Carry Shulock-Sexton

All livestock, horses, poultry, waterfowl, and other animals, including cats, dogs and other pets entering Massachusetts from other states must comply with Commonwealth regulations that require an official Certificate of Veterinary Inspection stating the animal is healthy prior to travel, plus official, individual identification for livestock. Additionally, some species may require certain testing to ensure negative status for diseases of concern depending on their state of origin. Exhibition animals shown in Massachusetts also must comply with health certificate and identification rules, ensuring the health of animals coming together for fairs and shows. These measures significantly reduce the possibility of introducing contagious disease to the Commonwealth's domestic animal population.

As part of the Animal Disease Traceability program, the Division distributed 1375 swine tags and 2575 bovine tags to producers and veterinarians in 2018-2019. Education and outreach has focused on biosecurity, movement documentation, and the USDA's announcement of the transition to electronic (RFID) identification by 2023. An additional 1546 premises identification numbers (PINs) were created for Massachusetts livestock owners and producers over 2018-2019, allowing them to purchase and utilize electronic ID. The Division also provides technical assistance to Massachusetts accredited veterinarians upgrading to electronic test records and certificates of veterinary inspection.

In addition, livestock and poultry dealers and transporters are licensed and their equipment and facilities are inspected. In 2018 (2019) there were 29 (31) licensed livestock dealers, 14 (17) licensed equine dealers, and 71 (72) licensed poultry dealers in Massachusetts.

## Dairy Program

### John Nunes

The Dairy Program ensures a healthy environment for livestock and a safe, high quality supply of milk at fair prices for consumers, processors, and dairy farmers. This requires careful inspection and monitoring to enforce the relevant laws and regulations. The Program monitors milk production, hauling, distribution, pricing, marketing, and inspection of dairy farms to assure a safe and healthy supply of milk to processors, and ultimately consumers. Many factors influence the quality and quantity of milk produced by a dairy farm. Bacteriological counts measured through testing of milk samples helps determine the quality of milk. When the counts exceed regulatory standards, a dairy farmer is required to return to compliance within a timely fashion. At the end of 2018 there were 126 bovine farms and 14 caprine farms certified as dairies. At the end of 2019 there were 121 bovine dairy farms and 11 caprine and 1 ovine dairy farm.

### Enforcement Actions

The Division utilizes a progressive enforcement protocol consisting of a Letter of Warning for violations required to be corrected within the following 10 days; a Letter of Warning for test results indicating 2 of the last 4 samples were out of compliance with standards; a Shut-Off Order for test results indicating 3 of the last 5 samples were out of compliance with the standards; and an immediate Cease and Desist order for any test

results that were excessively beyond the range of accepted standard, this last part is especially important for farms selling raw milk retail at the farm premises directly to consumers, without the benefit of pasteurization, which kills most of the harmful bacteria, that is found in raw milk.

<b>ENFORCEMENT ACTION</b>	<b>2018</b>	<b>2019</b>
10-day Letter of Warning	14	8
2 out of 4 Letters of Warning	43	29
3 out of 5 Shut-Off Orders	9	7
Cease and Desist	28	24
Antibiotic Residue Shut-Offs	1	1

## Equine Program

### Michael Gold

The Division of Animal Health administers a number of programs involving horses and other equine species. Licenses are issued to horseback riding instructors and the riding schools/stables where they operate. Riding stable licenses are also issued to any business where horse-drawn hay rides, horse-drawn sleigh rides, carriage rides, pony rides, and trail rides are offered to the public for a fee. As noted above, the Division also requires a license for anyone engaged in the business of dealing, auctioning, or transporting equine animals. This licensing includes record keeping requirements that seek to bolster other programmatic disease control efforts.

In 2018 and 2019, the Division continued to monitor the results of the horseback riding instructor exam reforms completed in 2017. This effort was a direct response to concerns from the regulated community that the test could be improved. The changes to the test were developed in concert with licensed instructors who pointed out specific questions that were; 1) important knowledge every instructor should have; 2) controversial based on differences in disciplines or philosophies; and 3) in need of editing to improve clarity. Several of the 100 exam questions were removed and replaced, or were rephrased. The pre-reform pass rate was 82.4 percent, and the current test has a pass rate of 89.5 percent. The average score has also increased slightly from 84.95 to 86.22. The Equine Program has concluded that these results demonstrate updating the exam was beneficial to the industry and serves as a better assessment of instructor competency prior to advancing them to the practical portions of the licensing process.

In 2018, the Program administered 199 exams and issued new riding instructor licenses to 106 candidates. In 2019, 197 candidates took exams and issued new riding instructor licensed to 95 candidates. Despite the increase in the pass rate of the written exam, the licensing rate of candidates is significantly lower since not all candidates successfully complete the required apprenticeship.



## **Enforcement Actions**

In 2018, the Division issued two warning letters for regulatory violations, both of which resulted in prompt correction and compliance, and license renewals. Similarly, one ten-day letter, which grants the recipient 10 days to correct a violation, and one cease and desist order were issued. Both of these enforcement actions were adequately addressed and the licensees were allowed to resume operations. One instructor was denied a license due to a previous conviction of cruelty to animals, one stable was denied a license based on the facility failing to meet the standards, and one stable owner who appeared for a hearing has since regained compliance and is operating with a current license.

In 2019, four ten-day letters were issued, two have fully complied, and two others are making improvements and still being resolved. One complaint was referred to the Animal Rescue League of Boston, one stable license which was initially denied was subsequently resolved after additional work was completed and the license could be granted. A cease and desist letter was issued to a person with a conviction for cruelty to animals in another state. Three stables were issued warnings for operating without a license. Only one of those three has completed the process and been licensed. The other two were issued cease and desist letters and will be monitored to ensure compliance during the coming year.

## **Homeless Animal Prevention and Care Fund Program**

### **Sheri Gustafson**

The Homeless Animal Prevention and Care Fund (Mass Animal Fund), administered by the Division of Animal Health, seeks to respond to the Commonwealth's ongoing problem of animal homelessness by providing no-cost spay/neuter/vaccination resources for homeless dogs and cats in municipal animal control facilities, for dogs and cats owned by low-income Massachusetts residents, and for feral cats. The Fund also provides free training opportunities and support to Massachusetts Animal Control Officers (ACO) so they can better serve their communities and provide uniform enforcement of animal control laws.

Since inception in 2012, the Fund has acquired \$2,420,840 to help address the needs of cats and dogs in the Commonwealth. The Massachusetts Animal Fund relies on donations from Massachusetts taxpayers, who have contributed 87% of this revenue through voluntary donations on Line 33f of the Massachusetts Income Tax Return and through online giving. In 2018 the Fund received \$334,990 in donations and \$342,533. Additional funding has been provided through a Commonwealth of Massachusetts Budget Line Items of \$100,000 each in 2017, 2018 and 2019.

The Mass Animal Fund Spay/Neuter/Vaccination Voucher Program sent its first voucher in in July 2014; since then, the program has disseminated 17,025 vouchers and has provided no-cost assistance to 12,381 animals through one of 51 veterinary providers across the state. The Fund's veterinary network completed 2,081 voucher surgeries 2018 and 2,463 in 2019. The largest population served was dogs and cats from low-income households (71%), followed by animals in municipal care (19%) and feral cats (10%). The most surgeries completed were on female cats (31%), followed by male cats (27%), male dogs (21%) and female dogs (21%). Reimbursement rates for surgeries were raised in January 2019, and

the average cost of surgery is now \$138. The Fund distributed spay/neuter/vaccination assistance to local animals in need totaling \$316,925 in 2018, and \$396,750 in 2019.

The Fund rolled out the Animal Control Officer Core Competencies Training Program in the March of 2016 and in the first four years of the program 583 commonwealth ACOs have been trained in the areas of animal laws in Massachusetts, emergency preparedness, animal behavior/safe handling, communication/ officer safety, and report writing /record keeping. Continuing education course options were rolled out beginning in August 2016 and since the Fund has approved over 150 courses for continuing education credit. ACOs in Massachusetts completed 5,377 hours of continuing education in 2018 and 5,052 hours in 2019.

## Municipal Animal Inspector Program

### Michael Cahill

The Division of Animal Health is responsible for appointing municipal animal inspectors for each and every city and town in the Commonwealth. These inspectors act as agents of the Division of Animal Health in the communities they serve. The primary duty of the municipal inspector involves issuing quarantines to owners of animals that have been exposed to or are potentially spreading the rabies virus. The other major role the inspectors fulfill for the Division is conducting the annual inspections of all domestic livestock and poultry housed on properties in their respective towns. These inspections are a part of MDAR's disease surveillance system and assist in ensuring animal owners provide basic necessities for the animals in their care. Additionally, the information the Division receives through these inspections assists in the development of emergency response plans for disease outbreaks or other disaster situations. Municipal Animal Inspectors may be called upon to serve as first responders in implementing these plans at the local level. At the end of 2019 there were 535 municipal animal inspectors appointed to fulfill the above duties for cities and towns across the Commonwealth.

## Pet Shop Program

### Esther Wegman

The Division of Animal Health has the statutory responsibility to license all pet shops. In 2018 there were 152 duly licensed pet shops, and in 2019 that number decreased to 146. Inspections are required for licensure and for subsequent annual license renewals of all Massachusetts pet shops. Each establishment must meet strict facilities requirements designed to maximize sanitary conditions that promote animal health. These requirements are in place to protect the health of the animals, as well as that of the visiting public and the employees who work in these shops. In 2018 the Department discovered 13 entities operating pet shops without the required license. In 2019 an additional 5 entities were found operating without the required license. All were issued an Order to Cease and Desist and were required to come into compliance before continuing activities. Fines were issued on 25 different occasions to licensed pet shops found in violations of the regulations in 2018, and on 29 different occasions in 2019.

## Poultry Program

### Megan Megrath

The Poultry Program provides producers, consumers and municipal and state officials with educational materials, information on safe egg handling, best management practices, production/grading support and flock inspections and testing. The local food movement and growth in consumer awareness of how food is produced have contributed to an expansion of backyard and commercial poultry production here in Massachusetts. The efforts of the Division of Animal Health strive to educate our residents. It is our hope that, through education, we can reduce the potential for conflicts with abutting neighbors, government officials and poultry enthusiasts. The Division of Animal Health supports the keeping of poultry when it is done responsibly; benefiting the birds, the owners and the communities in which they are located.

Massachusetts law requires live poultry and hatching eggs moving within the Commonwealth to originate from flocks tested for and confirmed free of *Salmonella pullorum* bacteria. This annual testing is performed by the Division of Animal Health. Other testing available to Massachusetts poultry producers include Avian influenza, *Mycoplasma gallisepticum*, *M. synoviae*, *M. meleagridis* and *Salmonella enteritidis*.

A total of 8,873 birds were tested for the presence of *Salmonella pullorum* in 2018. That number increased to 9,602 in 2019. During those two years the number of premises housing those birds increased slightly from 308 to 315. As is always done through our cooperative agreements with the United States Department of Agriculture (USDA), 10% of the samples drawn from each premises were also screened for Avian Influenza. In 2018, that represented 2,698 tests, and 2,861 tests for 2019. In 2018 and 2019 the testing identified 2 flocks with a Avian Influenza serology positive birds, indicating a past infection. Further testing was done in both flocks and no active virus was detected.

Under the National Poultry Improvement Plan (NPIP) Avian Influenza (AI) screening is required at different intervals for different flock types. Massachusetts has one game bird flock (pheasants) participating under NPIP. The breeding portion of the flock are required to be tested every six months, while the birds raised for release must be tested quarterly, resulting in 180 samples in 2019. In 2018, the two participants enrolled in the H5/H7 Avian Influenza Clean program resulted in an additional 120 AI samples submitted by the Department. In 2019 the Department enrolled 5 new participants in this program. Their testing regimen allowed them to expand their customer base by satisfying the import requirements for Avian Influenza testing across the country. This resulted in an additional 296 AI samples submitted by the Department. Massachusetts' largest commercial egg producer is participating in NPIP in order to export shell egg product. Participation in this program classification generated 180 samples in 2018 and 2019 for AI and also allows them to meet the requirements for shipping spent hens to market, a significant financial benefit.

Additionally, two commercial turkey farms requested enhanced testing during both years, which resulted in another 600 samples for *Mycoplasma gallisepticum*, 200 samples for *M. synoviae* and 200 for *M. meleagridis*.

Screening tests for *salmonella pullorum* identified 10 flocks with a total of 10 suspect/positive birds in 2018. 2 of the flock owners opted to submit the suspect/positive bird for necropsy and not wait 21-30

days to retest the birds. No salmonella was isolated from either of these birds. Follow up testing on all of the other suspects confirmed there was no *Salmonella pullorum* present. One flock owner decided to remain quarantined and retest the flock in 2019. In 2019 the number of suspect/positive flocks increased to 17 with 21 suspect/positive birds. A total of 8 birds were submitted for necropsy, salmonella enteritis was isolated from one of those birds. The flock owner was advised of a course of action to mitigate the risk of infection from consuming eggs from that flock. Follow up testing on all other suspect birds was negative.

During 2018 office staff received 30 calls from flock owners reporting sick poultry in their flocks. In 2019 that number dropped to 20. These calls are screened using an intake form developed by the poultry staff. The questions on the intake form are designed to gauge the severity of the illness in the poultry flock and evaluate the possibility of a flock infected with Avian Influenza. Once the intake form is sent to the poultry staff, the staff speaks with the flock owners. The majority of the calls received involved flocks most likely infected with *Mycoplasma Gallisepticum*, a respiratory disease, the virus Marek's disease, or Coccidiosis a protozoal gastrointestinal parasite. There were two cases of Infectious Laryngotracheitis confirmed after birds were submitted to the Veterinary Diagnostic Laboratory for necropsies. One commercial layer flock experienced above normal mortality. Birds from this flock were submitted to the diagnostic laboratory for necropsy. The owner also contacted their feed company and the feed was determined to be lacking sufficient levels of calcium. The low levels of calcium in the birds diet was determined to be the cause of the elevated mortality in the flocks. There were 3 flocks that were infected with bacterial infections. Upon necropsies these infections were identified as listeriosis and pasteurella. One rather alarming call identified a flock that experienced high mortality in a 24 hour period. After further investigation and necropsies, it was determined that the birds had died from respiratory trauma most likely caused by fumes from the Teflon coating on a heat lamp used overnight to provide additional heat. Several calls revealed issues with flock management and predation. Animal Health staff were able to help the owners correct these problems through education, ensuring an increased awareness of animal welfare.

The NPIP Program has maintained steady participation. In 2018 there were a total of 39 flocks, and that number dropped slightly to 34 flocks in 2019. Twenty-three of the Massachusetts participants took advantage of the electronic import/export certificates in 2018, that number had decreased to 19 participants by the end of 2019. This feature has benefited the program by reducing the amount of work required to file the hard copy forms. The electronic forms have also facilitated tracking import/export of poultry in Massachusetts for program participants. The database is easily searchable and capable of generating reports of various types. For instance there were 151,220 total hatching eggs/live poultry imported into MA in 2018, and 130,948 in 2019. This number does not include the poultry imported on paper forms. In 2018, Massachusetts producer's using the electronic forms produced 37,521 birds for export and 25,562 hatching eggs. In 2019 Massachusetts poultry producers exported 38,605 birds and 21,059 hatching eggs. MA producers hatched 13,748 birds that were sold within the Commonwealth.

## Rabies Program

### Elsie Colon

Rabies is a viral disease that can affect all mammals, including humans. The virus attacks the central nervous system and can be secreted in saliva. Because rabies affects people as well as animals, control of this disease has become a top priority for the Division of Animal Health. With the cooperation of the Department of Public Health, the Division of Fisheries and Wildlife, and Municipal Animal Inspectors, every aspect of potential rabies exposures is addressed in order to prevent further spread of the virus.

In 2018 there were 5,089 reported bite incidents involving domestic animals and humans. That number decreased slightly to 4,220, in 2019. In 2018, 2,322 domestic animals had possible exposures to rabies through contact with wildlife or received wounds of unknown origin that appeared to be from a fight with another animal. 2,010 domestic animals had possible exposures in 2019. Some of the wildlife involved in those exposure cases were submitted for rabies testing at the Massachusetts Department of Public Health's Rabies Laboratory. 94 animals tested positive in 2018, and 134 animals tested positive in 2019.

To enhance the numbers of vaccinated domestic animals in Massachusetts, the Rabies Program has implemented a user friendly registration system for municipalities and entities holding rabies vaccination clinics. Registered clinics are posted on the MDAR website at <http://www.mass.gov/eea/agencies/agr/animal-health/rabies-control-program/>. In 2018, there were 77 rabies vaccination clinics promoted through this service. In 2019, that number dropped to 68.

## Reportable Disease Program

### Esther Wegman

Reportable diseases include foreign animal diseases that are not currently affecting the state, diseases that have serious consequences to public or animal health, and diseases that MDAR has either previously eradicated from Massachusetts or is very close to eradicating. Veterinary practitioners are required to report suspected or positive cases of these diseases promptly to the Division of Animal Health. The Division seeks early detection in order to mount a rapid response in an effort to reduce the number of animals and animal owners affected by a disease outbreak.

In addition to the rabies cases mentioned previously, there were 185 suspected or confirmed cases of reportable diseases in 2018, and an additional 206 reported in 2019, including the following:

2018 CASES	DISEASE	ANIMAL(S) IMPACTED
70	Parvovirus	dog
32	Leptospirosis	dog, horse
1	Canine Influenza	dog
1	Panleukopenia	cat
12	Canine Distemper	dog
22	Strep equi (Strangles)	horse
13	Feline Calicivirus	cat
4	Eastern Herpes Virus-1	horse



5	Brucellosis	dog, goat
1	Erysipelas	swine
1	Potomac Fever	horse
1	Babesia	dog
1	Listeria	goat
8	Canine Distemper	dog
1	Johnes	cattle
4	Equine Coronavirus	horse
1	Tularemia	cat
4	Mycobacterium	swine
2	West Nile Virus	horse, alpaca
1	Equine Viral Arteritis	horse

2019 CASES	DISEASE	ANIMAL(S) IMPACTED
77	Parvovirus	dog
32	Leptospirosis	dog
1	Canine Influenza	dog (1 positive, 3 suspect)
4	Panleukopenia	cat
5	Canine Distemper	dog
23	Strep equi (Strangles)	horse
6	Feline Calicivirus	cat
1	Equine Herpes Virus-1	horse
1	Equine Herpes Virus-4	horse
9	Eastern Equine Encephalitis	horse, goat
5	Brucellosis	dog
2	Potomac Fever	horse
1	Listeria	goat
8	Canine Distemper	dog
16	Johnes	cattle
7	Equine Coronavirus	horse
3	Mycobacterium avian	swine
5	Contagious Echthyma	goats, sheep

## Shelter and Rescue Program

### Patricia Cabral

The Division of Animal Health's Shelter and Rescue Program ensures the health and safety of companion animals being offered to the public for adoption. The Division of Animal Health registers individual shelters and rescue groups who operate adoption programs within Massachusetts and those that adopt animals into Massachusetts from other states. The Division responds to reports of infectious or contagious disease at shelters and rescues, and also complaints from adopters regarding the physical or mental health of animals received. Since many animals that wind up in shelter and rescue channels have had little or no veterinary care, this disadvantaged portion of the domestic animal population requires greater attention. The rules that are in place serve as protection to the Commonwealth's resident animal population, the animals being handled within the shelter and rescue community, and the individuals who seek to help them through adoption. For more information, see <https://www.mass.gov/animal-shelter-and-rescue-program>

## **ENFORCEMENT ACTIONS**

In 2018, there were 432 registered shelters and rescues operating in Massachusetts and in 2019 that number increased to 441. In response to becoming aware of shelters and rescues that had failed to register with the Department and operate within the prescribed rules (Order 1-AHO-05), the Division issued 15 Orders to Cease and Desist in 2018 and another 5 in 2019. Administrative fines were issued to 3 groups in 2018 and another 3 groups in 2019. 4 of these 6 fines were issued to registered organizations that failed to comply with the requirement to isolate imported animals for 48 hours, and the other 2 were organizations that violated an Order to Cease and Desist operations without being registered with the Department.

## **Swine Program**

### **Esther Wegman**

The Swine Program includes permitted garbage feeders, licensed swine dealers, as well as Classical Swine Fever, Brucellosis and Pseudorabies testing. The word “garbage” is defined as any food waste containing meat scraps. With the required permit, swine farmers can collect garbage from restaurants, schools and other food establishments and use those materials to feed their herds, so long as it is re-cooked before serving to the animals. This can serve as a viable nutrition source for swine herds; farmers can sometimes be paid to haul off or receive for free this feed for their animals; and is an environmentally friendly means of recycling food waste. Such activities require a permit from both the Division of Animal Health and USDA/APHIS Veterinary Services. The issuance of this permit requires a facility inspection and garbage cooker temperature check. All garbage, regardless of previous processing, must be heated to 212 degrees Fahrenheit for a minimum of 30 minutes prior to being fed to swine. These strict regulations were implemented to mitigate the risk of disease transmission associated with feeding meat scraps to swine herds. In 2018, 16 permits to feed garbage were issued to swine operations in the Commonwealth. In 2019, 18 total permits were issued.

## Division of Crop and Pest Services

**Taryn LaScola, Division Director**

The Division of Crop and Pest Services has four programs within the Division. They are the following:

1. Farm Products and Plant Industries: oversees the inspection and licensing of farm products, plant industries, under Chapter 128 and its' accompanying regulations
2. Pesticides: regulates all pesticide use within the. It also is responsible for the registration and licensing of pesticide products, commercial applicators, and certain pesticide uses.
3. Apiary: ensures the health of the Massachusetts Honey Bee population by inspection.
4. State Reclamation and Mosquito Control Board: oversees the Mosquito Control Districts (MCD) throughout the state.
5. Hemp Program: oversees the inspection and licensing of individual growing and processing hemp.

### Farm Products and Plant Industries Program

The Farm Products and Plant Industries (FPPI) Program staff supports multiple programs based upon seasonal or workload needs, including nursery inspection, CAPS, and feed and fertilizer programs. In many cases, inspectional staff members provide coverage for programs outside of their primary area of responsibility, which results in more effective program administration. FPPI works cooperatively with USDA and UMASS Extension on different aspects of the program.

The FPPI Program had a challenging year, with staff fluctuations and meeting the demands of the industry. Demand for inspection of farm products, nurseries, and greenhouses remains high. These quality-control programs have proven to be extremely popular and helpful with growers, farmers, shippers, sellers, buyers and consumers as demand for high quality products continues to increase.

The FPPI Program administers a number of diversified quality-control programs for farm products and nursery stock, including Truth-in-Labeling Laws on fruit, vegetables, commercial feed, pet food, fertilizer, lime and seeds.

### Fertilizer Program

**Howard Vinton**

There were 508 companies who were issued licenses to manufacture and distribute fertilizer in Massachusetts in 2018, and over 6,149 products were registered as specialty fertilizers. There were a total of 270 samples of fertilizer take from products being offered for sale in Massachusetts. They were tested for Nitrogen, Phosphorus and Potash. If any shortage of guaranteed levels were found a fine was assessed to the manufacturer. In 2019, all these numbers increased as there were 696 companies issued licenses, over 6,962 products, and 273 fertilizer samples taken.

## Feed Program

### Howie Vinton

In 2019, the Feed Program reviewed and registered 16,628 products (16,017 in 2018) while registering 525 companies (592 in 2018). There were 246 feed products (260 in 2018) sampled for crude protein, crude fat and crude fiber under the Truth in Labeling law.

A total of 312 feed products (166 in 2018) were found to not be registered. There were 26 warning letters (also 26 in 2018) were sent to companies for unregistered products and for label violations or unapproved ingredients.

## Fruit and Vegetable Inspection

### Howard Vinton

Demand for fruit and vegetable inspection services continues to be primarily for the export of apples, with the majority of those being shipped to Canada. The Export Apple Inspection Program is of importance primarily because of the demand for controlled atmosphere (CA) stored apples, including the valuable McIntosh variety. Apples for export are required to meet quality standards set forth by the US Export Apple Act and must also meet the phytosanitary requirements of the importing country. MDAR inspected 2 and 14 container loads of apples for shipment in 2019 and 2018, respectively. There were 6 and 14 vegetable inspections conducted in 2019 and 2018, respectively.

## Nursery Inspections

### Howard Vinton

The Nursery Inspection Program requires the inspection and certification of nurseries and greenhouses in the state. All known growers and agents are required to be licensed and must renew annually. A grower's certificate is required to sell, exchange, give, deliver or ship within the commonwealth any tree, shrub or plant commonly known as nursery stock. An agent's license is issued to those who buy and sell nursery stock from certified nurseries throughout the country.

There were 3 inspectors on staff that conduct annual inspections of all certified nurseries in the Commonwealth to ensure that they are free of insects and plant diseases for half of the year. MDAR registered 162 and 151 nurseries with all inspected between June and September 2019 and 2018, respectively.

The three MDAR Nursery Inspectors worked with our state CAPS coordinator and inspected 35 sites for Asian Longhorned Beetle (*Anoplophora glabripennis*), Citrus Longhorned Beetle (*Anoplophora glabripennis*), Spotted Lanternfly (*Lycorma delicatula*), Sots Pine Blister Rust (*Cronartium flaccidium*) and Mile-a-Minute Vine (*Polygonum perfoliatum*). All sites came up negative.

The Department licensed 116 agents (999 in 2018) and 162 growers (158 in 2018). The Inspectors conducted 161 and 175 nursery inspections in 2019 and 2018, respectively. During these inspections, the following issues were found:

- Anthracnose
- Black Spot
- Black Vine Weevil
- Boxwood Blight – Confirmed by samples collected at two nurseries in MA. Three infected plants were found at Sylvan Nursery in Westport and Hyannis Country Garden in Hyannis. All of the infected plants were destroyed by the nurseries. Several other infected boxwoods were found at Spillane’s Nursery in Middleboro. Spillane’s decided to destroy the boxwoods without getting them tested.
- Cedar Apple Rust
- Daylily Rust
- Deer Damage
- Gypsy Moth (damage observed was much lower than the last few years)
- Hollyhock Rust
- Lily Leaf Beetle
- Willow Leaf Beetle
- Powdery Mildew (very heavy this year)
- Scorch (Later in season)
- Tar Spot
- Viburnum Leaf Beetle
- Winter Damage
- Leaf spot
- Galls
- Tent caterpillars
- Aphids
- Leafminer damage
- Daylily Streak
- Leaf curling (symptom of disease or pest)
- Japanese Beetle
- Sun scorch
- Tip blight
- \* Rust and fungus seemed to be very common this season due to the heavy rain in the spring and high humidity throughout the summer.

There were 20 and 9 stop sales on prohibited plants in 2019 and 2018, respectively. Stop Sales issued on the following;

- Norway Maples (*Acer platanoides*)
- Burning Bush (*Euonymus alatus*)
- Porcelain Vine (*Ampelopsis brevipedunculata*)
- Japanese Barberries (*Berberis thunbergii*)



➤ Creeping Jenny (*Lysimachia nummularia*)

*Ribes* permits issued in 2019: 80

*Ribes* permits issued in 2018: 123

In early July of 2019, the Department received a trace forward regarding *Phytophthora ramorum*. Shipments from several nurseries that had material testing positive for *P. ramorum* had come to four nurseries/garden centers in Massachusetts. Inspectors conducted the trace forward and collect samples of any material that showed possible signs of the disease. All samples collected tested negative.

## Cooperative Agricultural Pest Survey (CAPS)

**Joanne Klein**

The Cooperative Agricultural Pest Survey (CAPS) program is a partnership between states and the United States Department of Agriculture Animal and Plant Health Inspection Services (USDA-APHIS) to detect and monitor for exotic insects, plants, and pathogens.

In 2019, the CAPS program conducted the following survey work:

**Forest Pest Survey:** Traps were deployed at 40 sites in 11 counties.

Target		Traps	Collections	Positive	Negative
<i>Dendrolimus punctatus</i>	Masson Pine Moth	40	313	0	313
<i>Thamatopoea pityocampa</i>	Pine Processionary Moth	40	311	0	311
<i>Archips xylosteanus</i>	Variegated Golden Tortrix Moth	40	311	0	311
<i>Tortrix viridana</i>	Green Oak Tortrix Moth	40	304	0	304
<i>Platypus quercivorus</i>	Oak Ambrosia Beetle	40	295	0	295

**Nursery and Retail Plant Survey:** Visual survey was conducted at 35 sites in 13 counties.

Target		Sites	Plants Inspected	Positive	Negative
<i>Anoplophora chinensis</i>	Citrus Longhorned Beetle	35	17224	0	17224
<i>Anoplophora glabripennis</i>	Asian Longhorned Beetle	35	5107	0	5107
<i>Cronartium flaccidum</i>	Scot's Pine Blister Rust	35	1471	0	1471
<i>Lycorma delicatula</i>	Spotted Lanternfly	35	Entire nursery inspected	0	35
<i>Polygonum perfoliatum</i>	Mile-a-Minute Vine	35	Entire nursery inspected	0	35

**PPA §7721 Apple Orchard Survey:** Traps were deployed at 15 sites in 6 counties.

Target		Traps	Collections	Positive	Negative
<i>Adoxophyes orana</i>	Summer Fruit Tortrix Moth	15	116	0	116
<i>Archips xylosteanus</i>	Variegated Golden Tortrix Moth	15	116	0	116
<i>Epiphyas postvittana</i>	Light Brown Apple Moth	15	116	0	116
<i>Leucoptera malifoliella</i>	Pea Leaf Blister Moth	15	116	0	116
<i>Candidatus</i> <i>Phytoplasma mali</i>	Apple Proliferation Phytoplasma	N/A	31	0	31
<i>Lycorma delicatula</i>	Spotted lanternfly	N/A	15	0	15

Additionally, MDAR conducted mile-a-minute vine biological control funded through USDA-APHIS. In June 2019, 4,000 *Rhinocomimus latipes* were released at 6 sites of *Polygonum perfoliatum* infestation in Franklin County.

## Invasive Pest Outreach

### Jennifer Forman Orth

MDAR provides educational outreach about invasive insect pests through the Forest Pest Outreach Program as well as the Asian Longhorned Beetle (ALB) Outreach Coordinator, who provides outreach through an agreement with the USDA/DCR ALB Cooperative Eradication Program.

The ALB Outreach Coordinator participated in 27 tabling events and 4 presentations during 2019, the majority of which were in Worcester County. The ALB outreach coordinator performed outreach efforts to all campgrounds in Worcester County to deliver materials and information and find which campgrounds were interested in Riker mounts. Gave 4 presentations/trainings to new groups and schools that haven't received outreach before.

The Forest Pest Outreach Program focused mainly on outreach about spotted lanternfly and emerald ash borer this year. The forest pest coordinator successfully worked with the Massachusetts Department of Transportation to install spotted lanternfly displays on Route 90 rest stops. Created a database of Massachusetts colleges and universities that might be at risk from spotted lanternfly introduction from out-of-state students. The Forest Pest Outreach Coordinator also participated in 18 tabling events and 14 presentations during 2019.

The invasive species outreach programs distributed 34,645 pieces of outreach materials, including spotted lanternfly, emerald ash borer, and ALB id cards, and newly produced spotted lanternfly awareness stickers. The pest ID cards, ALB informational flyers, ALB tattoos, and Don't Move Firewood stickers were the most popular items distributed.

## Country of Origin Labelling (COOL) Inspections

### **Trevor Battle**

Since 2006, MDAR has been working under a Cooperative agreement with the USDA to perform audits relative to Country of Origin Labeling [COOL] requirements. Country of Origin Labeling is a labeling law that requires retailers, such as full-line grocery stores, supermarkets, and club warehouse stores, to notify their customers with information regarding the source of certain foods. Food products (covered commodities) contained in the law include muscle cut and ground meats (beef, veal, pork, lamb, goat, and chicken), wild and farm-raised fish and shellfish, fresh and frozen fruits and vegetables, peanuts, pecans, macadamia nuts, and ginseng. Currently MDAR has two staff members that work on the COOL program

In 2019, 91 COOL retail inspections were completed and submitted to USDA under MDAR's multi-year cooperative agreement. In 2018, 73 inspections were assigned and completed, and there were 7 follow up inspections were completed. The Department received \$49,400 reimbursement from the USDA for the inspections in 2018.

## Phytosanitary Inspections

### **Howard Vinton**

Growers in Massachusetts who export plant material and/ or seed require inspections prior to shipping. State and Federal Phytosanitary Certificates are issued by staff for shipment of plants and plant materials to other states or countries, certifying the shipment as being free from insects and plant diseases.

In cooperation with USDA-APHIS Plant Protection and Quarantine, MDAR conducts phytosanitary inspections and issues federal and state certificates.

In 2019, MDAR inspectors issued a total of 458 Federal Phytosanitary Certificates for plants, lumber, seeds and apples, with Indonesia, Vietnam, Republic of Korea, Pakistan, Hong Kong, China, Bermuda, Netherlands, Colombia, Mexico, Peru, Australia, Spain being some of the recipients. Inspectors issued a total of 1,237 state phytosanitary certificates for plants and seeds with California, Washington, Oregon, Arizona, California, and Florida being some of the recipients.

In 2018, MDAR inspectors issued a total of 547 Federal Phytosanitary Certificates for plants, seeds and apples, with Indonesia, Vietnam, Republic of Korea, Pakistan, Hong Kong, China, Bermuda, Netherlands, Colombia, Mexico, Peru, Australia, Spain being some of the recipients. Inspectors issued a total of 1,196 state phytosanitary certificates for plants and seeds with California, Washington, Oregon, Arizona, California, and Florida being some of the recipients.

## Apiary Program

**Kim Skyrn**

As a service to Massachusetts beekeepers, MDAR Apiary Inspectors work with beekeepers to help them maintain healthy colonies, and conduct hive inspections to check and assist with the detection of diseases and/or pests. Beekeepers are advised on how to treat any problems found. Apiary Inspectors also certify the movement of honey bee colonies throughout the state and the nation and inspect these colonies for diseases, pests and unwanted bee species.

Approximately 4-4,500 resident beekeepers maintained over 40-45,000 hives in Massachusetts. These numbers fluctuate from year to year due mainly to high winter hive mortality and the addition of hobbyist beekeepers to county apiary inspection lists. While the largest number of hives belong to commercial beekeepers, the Commonwealth is host to mainly hobbyist bee keepers. Both hobbyist bee keeper colonies and commercial honey bee colonies are systematically checked for diseases, parasites and other issues

In 2018, A total of 663 inspection requests were received. A total of 107 apiaries were voluntarily registered with the state apiary program. The team of five inspectors visited 568 beekeepers (3,814) looking for pests, parasites and pathogens. Findings are as follows:

Common Name	Total Colonies Detected with Issue
American Foulbrood (AFB)	4 (apiaries)
European Foulbrood (EFB)	324
Chalkbrood	79
Nosema	68
Parasitic Mite Syndrome (PMS)/Idiopathic Brood Disease Syndrome (IBDS)/Snot Brood/Varroosis	145
Sacbrood Virus (SBV)	122
Deformed Wing Virus (DWV)	101
Varroa Destructor Virus 1 (VDV1)	76
Black Queen Cell Virus (BQCV)	24
Chronic Bee Paralysis Virus (CBPV)	21
Israeli Acute Paralysis Virus (IAPV)	15
Lake Sinai Virus 2 (LSV2)	25
Small Hive Beetle (SHB)	28
Queen issues	170
Bear Damage	7
Pesticide Related Bee Kills	2

In addition, 78 “Dead Out” hives were inspected and the cause was determined to be related to Varroa Mite and Nosema loads. This information was shared with bee keepers as an education tool.

In 2019, a total of 531 inspection requests were received. A total of 153 apiaries were voluntarily registered with the state apiary program. The team of five inspectors visited 476 looking for pests, parasites and pathogens. Findings are as follows:

Common Name	Total Colonies Detected with Issue
American Foulbrood (AFB)	2 (apiaries)
European Foulbrood (EFB)	123
Chalkbrood	62
Nosema	61
Parasitic Mite Syndrome (PMS)/Idiopathic Brood Disease Syndrome (IBDS)/Snot Brood/Varroosis	312
Sacbrood Virus (SBV)	85
Deformed Wing Virus (DWV)	107
Varroa Destructor Virus 1 (VDV1)	30
Black Queen Cell Virus (BQCV)	10
Chronic Bee Paralysis Virus (CBPV)	17
Israeli Acute Paralysis Virus (IAPV)	16
Lake Sinai Virus 2 (LSV2)	15
Small Hive Beetle (SHB)	29
Queen issues	91
Bear Damage	0
Pesticide Related Bee Kills	2

In addition, 74 “Dead Out” hives were inspected and the cause was determined to be related to Varroa Mite and Nosema loads. This information was shared with bee keepers as an education tool.

The apiary program continued the Varroa Mite Education program in 2018. It complimented this program by applying for and receiving a grant offered by the Northeastern IPM grant. This program is a collaborat effort with the Maine apiary inspector. It distributed 5,000 brochures and 3,508 Varroa Mite jars to Massachusetts beekeeper and an additional 1500 to Maine beekeepers. In 2019, the program distributed 324 Varroa mite jars to Massachusetts beekeepers

The program continued to manage the two state apiaries and was able to harvest 720lbs of honey from them in 2019. This is an increase from 2018 where 407lbs was harvested. The honey is jarred and handed out as promotional and educational tools/gifts. In addition, the “Name a Queen” contest was held to educate school children about the value of bees. The contest asked children to come up with a name for one queen in each of the state apiaries.

The program also continued to hold and participate in educational events either on its own or in collaboration with UMASS Extension. These events included Honey Bees Under a Microscope, launching the Massachusetts Apiary and Pesticide locator map and the Honey Bee health survey. In 2018, the



USDA Honey Bee Health Survey and a separate survey that monitored 40 hobbyist apiaries across the state for pesticides.

In 2018, The program also continued to hold and participate in educational events either on its own or in collaboration with UMASS Extension. 17 programs were held by the program with 372 participants.

### State Reclamation Board (SRB)

The SRB oversees mosquito control and surveillance in the Commonwealth of Massachusetts, including 11 regional districts/projects providing services to 216 municipalities. The Board also establishes administrative and technical policy, guidelines, and best management practices to ensure that mosquito control programs are effective and safe.

In 2019, the districts/projects collected over 950,000 mosquitoes during the surveillance season, with over 240,000 of those mosquitoes submitted for arbovirus testing. 2019 was an extremely active year for EEEV, with 428 EEEV-positive mosquito pools reported, 12 human cases and 9 animal cases. This level of EEEV activity had not been seen since 2012. In comparison, West Nile Virus activity was low, with only 87 WNV+ mosquito pools, 3 human cases, and no animal cases. Levels of EEEV triggered aerial spray activity, with multiple spray events including 3 in Bristol/Plymouth County, and for the first time, 2 events in Central MA (1 covering Middlesex/Worcester/Norfolk County, and a second further west, also covering parts of Middlesex and Worcester County). For maps and additional details, see <https://massnrc.org/spray-map/>.

In 2019 there were 12 human cases of EEE reported, several horses and one goat. Due to the high level of arbovirus, the Department of Public Health declared a Public Health Hazard. The Massachusetts State Reclamation Board then voted to activate the Emergency Response Plan for Mosquito Borne Illness (0/download) and to conduct aerial adulticide applications. There were two rounds of aerial applications that took place using Anvil 10 + 10 ULV. The applications took place for the majority of August and September.

### Pesticide Program

The Massachusetts Department of Agricultural Resources is the lead state agency for pesticide regulation in the Commonwealth under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA) as well as the Massachusetts Pesticide Control Act. The Pesticide Program carries out the day to day responsibilities of regulating pesticides in the Commonwealth, including the licensing of pesticide applicators, the registration of pesticide products, and the enforcement of the statute and regulations. In addition, the Pesticide Program carries out other pesticide related activities in support of the regulatory mandate, such as education, outreach, and water monitoring. The Pesticide Program also acts as support staff for the Pesticide Board and Pesticide Board Subcommittee.

## Aquatic Vegetation Management

### Hotze Wijnja

Reviews of new active ingredients of aquatic herbicides and rights-of-way herbicides are conducted cooperatively by MDAR and MassDEP-Office of Research and Standards (ORS). During 2018, a review of ProcellaCor EC (EPA Reg. No. 67690-80), containing the active ingredient florpiauxifen-benzyl began. Relative to the rights-of-way herbicides, the reviews of two new active ingredients indaziflam and aminocyclopyrachlor remained in progress. Upon completion of the reviews these herbicide will be added to the Sensitive Area Materials List. MDAR staff interacts with MassDEP and stakeholders related to proposed aquatic plant management projects to control of aquatic vegetation under the Wetlands Protection Act Regulations.

Related to public drinking water supply protection, MDAR staff interacts with UMass Extension staff and pesticide applicators to ensure that water resources are sufficiently protected. During 2018, there were no situations that required targeted water quality monitoring for pesticides.

## Children and Families Protection Act (CFPA)

### Trevor Battle

The Children & Families Protection Act (CFPA), which protects children and families from harmful pesticides, was enacted in the year 2000. The Act mandates that all public/ private schools K-12, school age child care programs and daycare centers have an Integrated Pest Management (IPM) Plan, puts limitations on pesticide use inside and outside of schools, and requires notification for some pesticide applications.

The school IPM Program continues to move closer to near 100% compliance. Currently, IPM plan compliance for both schools and daycare programs stands at 98.4% and 96% respectively.

The Pesticide enforcement division conducts routine inspections with schools regarding their IPM plans. During the inspection an inspector reviews the plan, pesticide application records and provides education and outreach regarding the requirements

## Enforcement

### Michael McClean

The Enforcement program is charged with enforcing the provisions of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), the Massachusetts Pesticide Control Act (MGL 132B) and the regulations promulgated thereunder. The enforcement program conducts routine inspections of pesticide users' establishments and the producers from which they acquire the products. Enforcement also investigates complaints regarding the misuse of pesticides in addition to providing education and outreach about Department pesticide programs. There are 4 pesticide inspectors and 1 Chief inspector.

In 2019, a total of 222 pesticide inspections of which 66 were investigations relative to pesticide complaints. These inspections covered a wide range of pesticide use in the Commonwealth were completed

In 2018, a total of 348 pesticide inspections covering a wide range of pesticide use in the Commonwealth were completed. Inspections of note include:

- 169 physical and 22 documentary samples were collected during inspections.
- 9 Producer Establishment Inspections (PEI) were conducted using federal credentials.
- 13 Restricted Use Dealer inspections were completed.
- 96 certified applicator records inspections were completed.
- 5 Agricultural For Cause (follow-up) inspections were completed
- 55 Non-Agricultural For Cause investigations were completed; Non-Agricultural For Cause inspections consisted of consumer complaints and/or licensing violation inspections due to possible misuse pursuant to Massachusetts requirements 333 CMR.
- 21 Worker Protection Standard inspections were completed.

In 2018, the pesticide enforcement staff issued the following enforcement actions:

- 23 Letters of warnings
- 5 Administrative orders
- 1 case forwarded to the Environmental Protection Agency

**\*\*Please note, numbers reported are for the 2019 and 2018 federal fiscal year, respectively. These do not include the pending enforcement actions on open investigations during that time\*\***

## Ground Water Program

### Hotze Wijnja

#### Registration Review

As part of the pesticide registration process, MDAR has an on-going program to assess the potential of pesticides to impact water resources. A total of 7 new active ingredients with use patterns that may impact water resources were reviewed and registered during 2018:

#### New Chemicals:

- Pyroxsulam
- Ethaboxam
- Cyclanilprole
- Nitrapyrin
- Floryauxifen-benzyl
- Tolpyralate

None of these new active ingredients met the criteria for the Massachusetts Groundwater Protection List.

MDAR staff continues to include the enforcement of the groundwater regulations as part of their standard inspections. These inspections ensure that pesticide users understand and comply with groundwater regulations, particularly the notification requirement for the use of ground water protection-listed (GWP) pesticides within Zone II areas. Records of these notifications are maintained such that information on these pesticide applications is available when needed.

## Worker Protection Standard

### Laurie Rocco

The Agricultural Worker Protection Standard (WPS) is a regulation aimed at reducing the risk of pesticide poisoning and injury among agricultural workers and pesticide handlers. The WPS offers occupational protections to agricultural workers (people involved in the production of agricultural crops) and pesticide handlers (people who mix, load, or apply crop pesticides) that work at agricultural establishments (farms, nurseries and greenhouses). It requires that owners and employers on agricultural establishments provide protections to workers and handlers from potential pesticide exposure, train them about pesticide safety, and provide mitigations in case exposures occur.

EPA updated WPS and began educating the states on the changes in 2015. 2016 was dedicated to provided education and outreach to growers on the changes as they went into effect at the beginning of 2017. 2018 was a year for compliance assistance and more education and outreach. A total of eleven (11) outreach events were attended and presented at.

## Pesticide Applicator and Licensing Program

### Steve Antunes-Kenyon

The Massachusetts Pesticide Control Act requires all persons who apply pesticides in public and private places used for human occupation and habitation, with the exception of residential properties with three or less dwelling units, to be in possession of a valid license or certification issued by MDAR. There are 4 types of pesticide licenses in Massachusetts: Commercial Applicator License, Commercial Certification License, Private Certification License and Dealer License. These licenses permit the legal use of pesticides including but not limited to the following: purchase, sale, application, mixing, loading, storage, disposal, and transport.

## Certification and Licensing

2018 was the first full year that the new online pesticide license system was in place. The 2019 renewal period was a success with many applicators and stakeholders pleased with the speed in which their renewed or new license was issued. The Department issued approximately 8,000-8,500 licenses during the 2018 year.

Pesticide examinations are offered to individuals seeking pesticide licensure throughout the year, with a minimum of one exam each month. The Department administered 30 pesticide exams for the four

licensure types. A total of 2,290 individuals registered for exams. 1,704 passed the exam. It should be noted that not all individuals that register for the exam arrive to take the exam.

### Continuing education

License holders must attend continuing education programs and obtain contact hours to maintain and enhance their pesticide application knowledge. Applicators who do not meet the required number of educational hours are obligated to retake the state examination to be recertified or relicensed. There were 545 (commercial applicator licenses) applicators chosen as part of a random audit to verify that they had met the required number of contact hours by the end of a three year training period.

### Pesticide Applicator Continuing Education (PACE)

#### **Trevor Battle**

MDAR staff, UMASS Cooperative Extension, and various industry associations and companies continued to educate the pesticide-user community regarding laws and regulations through lectures and presentations. The Department approved 600 continuing education programs to support the recertification requirements for all licensed applicators. 245 of those were online/webinar trainings while the remaining were traditional classroom trainings.

### Pesticide Product Registration

#### **Susie Reed and Hotze Wijnja**

Any person who has obtained a pesticide product registration from the EPA must then apply for a registration with MDAR. The registrant, or an agent acting on behalf of the registrant, is required to submit an "Application for New Pesticide Registration", a Material Safety Data Sheet (MSDS), and a product label. New products are usually registered on a monthly basis. Every product label is thoroughly reviewed for compliance with state and federal laws and then brought to the Pesticide Board Subcommittee for consideration. A registration is valid for a period beginning with the initial date of approval by the Subcommittee and ending on the next June 30th.

In 2019, the Department launched its online system in EIPAS for product registration. The system allows pesticide product registrants to submit applications for new product registration and allows them to renew existing products. The first year has had some difficulties, but the Department believes that is normal due to the newness of the system. It expects for the renewal process to go more smoothly in the following years as it did when pesticide licensing went to an online system.

### State Restricted Use Pesticide classification (SRUP)

A Federal General Use pesticide product registered by the Commonwealth may be classified as either general use or reclassified as State Restricted Use based upon its use pattern or the potential to become a groundwater contaminant



### Special Local Needs (SLN) registration

When a particular agricultural problem exists that can only be mitigated through the use of a pesticide that is not federally registered for that specific purpose, a Special Local Need registration may be issued by the state under section 24c of FIFRA.

### Experimental Use Permits (EUP)

State experimental use permits are required to control potential hazards of pesticide experimentation under outdoors, greenhouse, and domestic animal trial conditions. To obtain such a permit, a state application must be filed with the Pesticide Board Subcommittee along with a product label, a copy of the EPA EUP and a fee of \$300 dollars.

### Summary of product registration 2019

Products renewed: 7323

New products: 551

New Active ingredient: 15

EUP: none

24-C (SLN): 1 amendment: Intensity Herbicide (clethodim) on cranberry

Section 18 Emergency Exemption (specific): Kerb SC Herbicide on cranberry

### Summary of product registration 2018

Products renewed: 8,549

New products: 822

New Active ingredient: 7

EUP: 1

SLN: 2

### Rights-Of-Way (Row) Management

#### **Clayton Edwards**

The Rights-of-Way (ROW) program enforces the provisions of 333 CMR 11.00 by regulating the use of herbicides to control vegetation on all rights-of-ways within the Commonwealth. The ROW program has substantial interaction with many state agencies and municipalities through its administration and also provides public notification and opportunity for the general public and interested parties to comment on the various ROW treatments.

### Vegetative Management Plans (VMPs)

VMPs are an overview of an entire ROW System. They describe potential methods of herbicide control, including pesticides, mechanical and biological methods, or any Integrated Pest Management or IPM techniques. Plans must be renewed on a 5 year cycle and must be presented at public hearings in areas affected by ROW practices. In 2018, 7 plans were reviewed, brought to public hearing, and approved by the ROW Coordinator.

## Yearly operational Plans (YOPs)

These plans covered operational activities along ROWs within the Commonwealth. YOP's consist of the names, rates and amounts of pesticides to be applied along specific ROWs, as well as the individual sites, and identification of "sensitive areas" where prohibitions in standard application practices are warranted. Each plan was reviewed and comments were made by the ROW Coordinator. In 2018, 32 plans were reviewed.

## Industrial Hemp Program

### Sarah Grubin

Massachusetts voters passed a referendum allowing the adult use of recreational marijuana in the state. An Act to Ensure Safe Access to Marijuana, which updates the Commonwealth's laws that govern the use of marijuana, created a distinction between Marijuana, Hemp, and Industrial Hemp, allowing both Hemp and Industrial Hemp to be grown commercially or as part of an Agricultural Pilot Program. In amending M.G.L. c. 128 to include Sections 116 through 123, MDAR was given the authority to oversee Industrial Hemp in MA. MDAR established a new Industrial Hemp Program in 2017 which now employs 2 staff. There is no industrial hemp being grown or processed in Massachusetts yet, but the program is working on developing policy to allow commercial growers and processors to be licensed in MA, and is establishing an Agricultural Pilot Program which allows state departments and universities to conduct research on hemp as outlined in the 2014 Farm Bill.

MDAR released its 2018 Interim Grower Processor Policy on April 30, 2018. During the 2018 season the Department licensed 14 entities to either grow, process or perform both activities. A total of 21 acres were planted outside and 15,000 square feet planted indoors. The main reason for growing and processing hemp was for CBD production.

A total of 122 Hemp Licenses were issued in MA in 2019.

License Type	Number issued
Dual Grower/Processor	46
Grower	61
Processor	15
<b>Grand Total</b>	<b>122</b>

A total of 810 acres were licensed for hemp cultivation outdoors, and 213,824 ft<sup>2</sup> were licensed for indoor or greenhouse cultivation in 13 Massachusetts counties.

County	Outdoor Acres	Indoor Ft <sup>2</sup>
Barnstable	12	0
Berkshire	59	15,500
Bristol	14	8,600
Essex	5	7,300
Franklin	283	42,696
Hampden	90	16,900

Hampshire	138	55,796
Middlesex	26	6,500
Nantucket	<1	0
Norfolk	3	18,550
Plymouth	66	22,550
Suffolk	0	5,000
Worcester	113	14,432
<b>Grand Total</b>	<b>810</b>	<b>213,824</b>

Massachusetts requires that all hemp cultivated in MA be tested for total THC content prior to harvest for certification. Hemp produced in Massachusetts must be certified before it can enter the stream of commerce. Hemp must contain less than 0.3% THC to be certified. A total of 268 individual hemp crops were tested in 2019 in MA, from 77 different licensed growers. Of those 268 crops, 177 were certified after the first round of testing. Massachusetts allows for up to 2 additional re-tests if a crop does not meet the THC requirements after an initial test. Of the 87 crops that tested above 0.3% THC on their first test, 34 were destroyed voluntarily by growers and 53 were re-tested. Additional testing is ongoing, however to date, 21 additional crops were certified after a second round of testing, and 3 were destroyed voluntarily.

Overall, a total of 390 and hemp inspections were conducted the Hemp Program.

Harvest and yield data are still being reported. An estimate for the amount harvested by area and weight is expected after January 1.

## Division of Agricultural Conservation and Technical Assistance (DACTA)

**Gerard Kennedy, Division Director**

### Agricultural Business Training Program (ABTP)

MDAR offers agricultural business training courses and workshops throughout the state to Massachusetts farmers at various stages of business development. The courses are taught by experienced instructors who are familiar with the challenges and opportunities in the agricultural field, providing guidance and resources to help farm operators be successful.

In FY2018: MDAR offered two 5-session Exploring the Small Farm Dream courses - one in Fall of 2017 in Leominster to 12 participants representing 8 potential farm enterprises and one in Spring of 2018 in Amherst to 15 participants representing 11 potential farm enterprises. This course, developed by the New England Small Farm Institute, provided structure for participants exploring or planning to start a farm, to evaluate whether agricultural entrepreneurship was right for them, and to determine whether their small farm dream idea is feasible.

The Tilling the Soil of Opportunity business planning course using NXLevel curriculum for established agricultural entrepreneurs was offered in the Fall of 2017 in Leominster to 10 representatives of 6 farms. All participating farmers completed a business plan for their farm through this 10-week course.

A Farm Succession Planning training was offered to farm viability program contractors and MDAR staff in June to help increase awareness of the resources and tools available to farms to assist in farm transfer.

In FY2019: MDAR offered Exploring the Small Farm Dream course in Fall of 2018 in Sudbury to 9 participants representing 8 potential farm enterprises and in Spring of 2019 in Amherst to 10 participants representing 9 potential farm enterprises.

MDAR piloted a new, updated business planning course curriculum called Growing your Farm Business held in the winter in Amherst with 13 participants representing 8 farms. Through 7 class sessions from instructors and guest speakers on subjects including financial management, marketing, risk management, and succession planning as well as individualized assistance, all farms completed and presented a business plan for their farm by the last session of the course.

A Planning for the next Generation workshop was offered in two locations: Amherst in Feb and Leominster in March to provide APR farmers with information about succession planning and transferring their farm to the next successor. Speakers included staff from Land for Good and MDAR's APR Program. There were 25 attendees at the workshop in Leominster, 19 of them farmers; and 23 attendees in Leominster, 19 of them farmers.

### Agricultural Climate Resiliency & Efficiencies Program (ACRE)

**Laura Maul**

The Agricultural Climate Resiliency & Efficiencies (ACRE) Program is a new program that started in Fiscal Year 2018. The program was created as part of the implementation of Governor Baker's Executive

Order 569, which lays out a comprehensive approach to further reduce greenhouse gas emissions, safeguard residents, municipalities, and businesses from the impacts of a changing climate, and build a more resilient Commonwealth.

The ACRE Program funds projects to address the agricultural sectors vulnerability to climate change, mitigate climate change in agriculture, and improve economic resiliency. This includes projects that improve soil health, improve water use efficiency and availability, promote efforts to reduce or limit greenhouse gas emissions, or to enhance greenhouse gas sequestration. In addition, projects that reduce post-harvest produce loss, improve energy efficiency, and facilitate clean energy adoption are also eligible.

In Fiscal Year 2018, 17 projects were awarded funding totaling \$500,000. In Fiscal Year 2019, 40 projects were awarded funding totaling \$1,000,000 in funding. Examples of funded projects include no-till planters, no-till drills, electronic irrigation controls, moisture and temperature sensors, compost application equipment, and controlled atmosphere storage bins.

### [Agricultural Food Safety Program \(AFSIP\)](#)

#### **Laura Maul**

The Agricultural Food Safety Improvement Program (AFSIP) is a program which was created to help produce operations address farm food safety risks and work towards compliance with food safety regulations and third party audits. Since 2014, the program has awarded 165 projects and over \$1.5 million dollars in funding statewide to upgrade their farm food safety practices in order to maintain or increase market access, to meet regulatory requirements, and in doing so, work towards protecting public health.

Some examples of projects include wildlife exclusion fencing, packing shed upgrades, produce washing equipment, field harvest systems, hand washing sinks, and drainage systems. For FY2018, the program awarded 20 projects were funded totaling \$275,000 in awards. For FY2019, the program awarded 21 projects were funded totaling \$300,000 in awards.

### [Agricultural Environmental Enhancement Program \(AEEP\)](#)

#### **Laura Maul**

AEEP is a voluntary program that provides financial support to agricultural operations to help implement conservation practices intended to protect the Commonwealth's natural resources by the prevention or mitigation of pollution that may arise from agricultural practices. Since 1999, the program has awarded 637 projects statewide that improve water quality, conserve water, reduce greenhouse gas emissions, and conserve energy. Agricultural operations have received over \$8 million dollars to help them address environmental concerns on their farms. In Fiscal Year 2018, 23 projects were funded totaling \$350,000 in awards. In Fiscal Year 2019, 23 projects were funded totaling \$350,000 in awards. Projects are selected based on their potential to impact the most sensitive resources, including drinking water



supplies, wetlands, Department of Environmental Protection (DEP) priority water bodies, and Areas of Critical Environmental Concern.

A strength of AEEP is its ability to complement federal funding from the Natural Resource Conservation Service (NRCS) programs for environmental practices on farms, enabling the completion of, for example, a costly manure management structure that the farmer otherwise could not afford to complete. Examples of funded projects include the installation of manure management systems, pesticide storage facilities, fencing to keep livestock out of wetlands, energy efficient pumps with low emissions, drip irrigation, automated irrigation systems, and water control structures.

### Matching Enterprise Grants For Agriculture (MEGA)

Recognizing the importance of new farmers to the agricultural industry, the Department initiated the MEGA Program in 2010 in response to the needs of new and beginning farmers in Massachusetts. The program offers business and technical assistance to farm operators between 1 and 5 years in business that aspire to have commercially viable farm businesses along with 1 to 1 matching grants of up to \$10,000 per farm. Selected farmers participate in a business planning process to narrow down the best use of the grant funds, which must be spent on equipment or capital improvements that will enhance farm viability.

In FY2018, \$99,925 in total grants of up to \$10,000 per farm and a total of \$46,920 of technical assistance (an average of \$3,910 per farm) were provided to 12 participating MEGA farms. These farmers contributed more than the required combined total of more than \$99,925 of their own funds for identified farm improvements.

In FY2019, \$82,359 in total grants of up to \$10,000 per farm and a total of \$38,240 technical assistance (an average of \$3,476 per farm) were provided to 11 participating MEGA farms. Farmers contributed more than what was required with a combined total of \$134,452 of their own funds for farm improvements.

Since MEGA began in 2010, \$724,880 total grants (an average of \$8,949 per farm) and \$337,424 of technical assistance (an average of \$4,017 per farm) have been provided through 9 rounds of the program to 84 diverse beginning farms located across the state.

### Agricultural Preservation Restriction Program (APR)

#### **Ron Hall**

The Agricultural Preservation Restriction Program (APR) preserves and protects agricultural land, including soils, as a finite natural resource, and prevents them from being built upon for non-agricultural purposes or used for any activity detrimental to agriculture. The program is designed to keep APR land values at a level that can be supported by the land's agricultural uses and potential.

Over the course of calendar years 2018 and 2019 the APR program protected 15 farm projects covering over 750 acres for a total consideration of over \$6.5 million. This raised the total farm properties

enrolled to 924 and the total farmland protected to just shy of 74,000 acres. To acquire most of these restrictions, the program partnered with the federal Natural Resources Conservation Service (NRCS) through the federal Agricultural Lands Easement Program (ALE).

	Municipalities	County	Closing Date	Acreage	Total Consideration
1	Agawam	Hampden	9/10/2019	66.855	\$300,000
2	Seekonk	Bristol	8/21/2019	9.8	\$180,000
3	Sheffield	Berkshire	6/20/2019	176	\$1,692,000
4	Princeton	Worcester	12/12/2018	60.64	\$450,000
5	Southwick	Hampden	8/23/2018	34.165	\$730,000
6	Hadley	Hampshire	6/28/2018	107.94	\$500,000
7	West Bridgewater	Plymouth	6/20/2018	71.2	\$1,073,870
8	Westport	Bristol	5/29/2018	15.418	\$625,000
9	Granby	Hampshire	4/3/2018	14.632	\$132,350
10	Westport	Bristol	4/3/2018	71.99	\$0
11	Westport	Bristol	4/3/2018	68.1	\$0
12	Whately	Franklin	3/30/2018	13.2	\$102,314
13	Whately	Franklin	3/14/2018	5.719	\$77,314
14	Whately	Franklin	2/8/2018	17.6	\$198,314
15	Stow	Middlesex	1/26/2018	23.12	\$497,805
				756.379	\$6,558,967

### APR Improvement Program (AIP)

The purpose of the APR Improvement Program (AIP) is to help sustain active commercial farming on land that has already been protected through the Department's Agricultural Preservation Restriction (APR) Program. AIP provides business planning and technical assistance to help improve the productivity and profitability of participating farms with the goal of enhancing the significance of APR farm operations and their contribution to the state's agricultural industry. Participating farmers may be eligible for grant funds for projects identified through the planning process which must be spent primarily on farm infrastructure - capital projects to build or improve farm buildings or resource improvements that will help maintain or enhance the farm property.

In FY2018, \$525,000 in total grants (an average of \$87,500 per farm) and \$28,093 in planning and technical assistance (an average of \$4,682 per farm) were provided to 6 participating AIP farms from across the state with a combined total of 454 acres of APR land.

In FY2019, \$525,000 in total grants (an average of \$75,000 per farm) and \$26,440 in planning and technical assistance (an average of \$3,777 per farm) were provided to 7 participating AIP farms from across the state with a combined total of 1,218 acres of APR land.

Since the program began in 2009, AIP has provided a total of \$5,875,000 in grant funding and \$486,920 of planning and technical assistance to 85 participating Massachusetts farms through 10 rounds of the

program. These farms own a combined total of 11,993 acres of farmland that has been permanently protected from development under APRs.

### Stewardship Assistance and Restoration on APRs (SARA)

The purpose of the Stewardship Assistance and Restoration on APRs (SARA) program, initiated in Fiscal Year 2016, is to improve the overall utilization of APR land resources for commercial agriculture. SARA provides grant funding of up to \$25,000 per farm, with a 15% required cash match, for identified improvements that will help restore or enhance protected resources on an APR farm property. The Program assists participants with conducting activities that will enhance the continued use of the agricultural resource, which may include but are not limited to: improving soil health; stabilizing soil loss; reactivating cropland use that had been negatively impacted by erosion, flooding, natural disasters or inactivity.

In FY2018, 12 respondents applied to 2 rounds of SARA and a total of \$125,917 in grants were provided to 6 APR farms. These funds helped to clear field edges, remove stumps and reseed cropland, clear out drainage ditches, restore pasture, pick stones and restore cropland, repair an irrigation pond, and make drainage improvements.

In FY2019, 17 respondents applied to 2 rounds of SARA and a total of \$130,675 in grants were provided to 7 APR farms. These funds helped to clear field edges, restore farm access roads, remove stumps and reseed cropland, clear out drainage ditches, restore pasture, pick stones and restore cropland, and make drainage improvements.

### Agricultural Composting Program

#### Sean Bowen

MDAR's Agricultural Composting Program (330 CMR 25.00) encourages and supports composting on farms by providing technical assistance to compost operators as well as an Agricultural Composting Registration process that allows qualifying farms to register their operations with MDAR under an agricultural waste composting exemption in MassDEP's Site Assignment Regulations for Solid Waste Facilities (310 CMR 16.00). Under that exemption, any farm that wishes to compost organic materials other than those that are generated on their own farms, must register their operation with MDAR.

Agricultural Composting is defined in 330 CMR 25.02 as: "The composting of agricultural wastes and other compostable materials on an agricultural unit resulting in stabilized compost products for agricultural and horticultural uses." In addition to agricultural wastes, registered composters may utilize the following compostable materials, provided the operation complies with policies of the Department of Agricultural Resources:

- Leaf and yard waste
- Wood wastes

- Paper and cardboard
- Clean compostable (i.e. thin) shells
- Non-agricultural sources of manures and animal bedding materials
- Vegetative material
- Food material

The program is responsible for registering new agricultural composting sites, as well as renewing the registration of existing sites annually. In 2019, a total of 53 sites were registered in the MDAR Agricultural Composting Program. Throughout the course of the year, MDAR's Agricultural Composting Specialist conducts site visits to registered composters and prospective farms wishing to engage in agricultural composting to address any concerns that arise on registered sites, providing technical assistance and troubleshooting to improve the composting operation.

A new grant program was developed in 2019, MDAR's Agricultural Composting Improvement Program (ACIP), designed to facilitate on-farm composting and compost use to improve soil on farms. During this first year, over \$150,000 was awarded to six farms statewide, and assisted in the funding of screeners, spreaders, alternate composting technologies, and other beneficial equipment and projects.

During 2019, public hearings were held to receive comments relative to proposed changes to MDAR's Agricultural Composting Program Regulation, 330 CMR 25.00. Recommendations and comments were received and several were integrated into a final proposed regulation, which was promulgated in February of 2020.

## Aquaculture Program

### Sean Bowen

Agriculture in Massachusetts comes in all shapes and sizes. One of the most diverse segments of the agriculture industry is the cultivation of marine and freshwater animals and plants - aquaculture. The Commonwealth's aquaculture industry produces aquatic species for food, education, restoration, research, ornamental, bait and sport fishing activities, including species of shellfish and at least 10 species of finfish – freshwater and marine. There has also been some small scale culture of marine macro-algae (seaweed), which has shown promise, and may help to diversify aquatic farms.

The largest segment of the state's aquaculture industry is the culture of bivalve shellfish. In 2018, 391 licensed farms grew shellfish on 1,200 acres of tidal land in the Commonwealth. By far, the largest farm raised shellfish crop is the Eastern oyster, however other species are grown, such as hard shell clams, bay scallops, softshell clams, and blue mussels.

Due to the environment and location in which they are grown, coupled with their role as "filter feeders", raising shellfish presents unique challenges. Naturally occurring bacteria and algae blooms, weather events, regulatory adaptation, and competing uses of the coastal area are recurring themes for shellfish farmers. Notwithstanding these challenges, the sector remains strong - and growing. The most recent

studies have shown the value of the shellfish aquaculture industry in Massachusetts to be in excess of \$27 Million.

MDAR supports three Aquaculture Centers which provide technical support, marketing assistance and promotion, and education to the industry and the public. The Northeastern MA Aquaculture Center (NEMAC) is located within Salem State University, Southeastern MA Aquaculture Center (SEMAC), located within Barnstable County Cooperative Extension, and the Western MA Center for Sustainable Aquaculture (WMCSA) operated through UMASS Amherst. During FY18-19, a total of \$100,000 was provided to the Centers to support the Massachusetts aquaculture industry.

The Food Safety and Aquaculture Specialist, within MDAR's Division of Agricultural Conservation and Technical Assistance, provides a variety of services to support the promotion and development of Massachusetts aquaculture. The integration of food safety and aquaculture within DACTA enables MDAR to assist the industry by facilitating regulatory compliance, offering permitting assistance, and affording more effective inter-departmental policy discussion.

## Energy Efficiency, Conservation, And Renewables Program (Energy Program)

**Gerry Palano, Alternative Energy Specialist**

### Introduction

Since 2009, the Massachusetts Department of Agricultural Resources (MDAR) annually requests Massachusetts agricultural operations to submit proposals seeking funding for agricultural energy projects under our Agricultural Energy (AgEnergy) Grant Program. This is in an effort to improve energy efficiency and to facilitate adoption of alternative clean energy technologies in order that farms can become more sustainable and the Commonwealth can maximize the environmental and economic benefits from these technologies. By implementing these projects, the agricultural operation will help farms become more sustainable while contributing to the goals of: the MA Food Systems Plan; MA Energy Efficiency and Renewable Energy Implementation; and the climate change MA Global Warming Solutions Act. Since inception our annual AgEnergy Grant has now helped fund over 225 farms for a variety of energy efficiency and renewable energy projects, providing total funding of over \$3.6 million dollars toward almost \$18.5 million dollars of total project construction costs, achieving over \$1,200,000 in either annual energy savings or energy generation.

Of significance in FY2018 and FY2019 was supplemental funding of \$1 million dollars from the MA Department of Energy Resources (DOER) for MDAR's energy grant programs from DOER's Alternate Compliance Payment fund. This funding was well received by our agricultural community, enabling MDAR to expand the existing annual AgEnergy Grant Program in both per applicant amounts and in total grants awarded, as well as continuing the new Special Projects Grant, intending to provide funding for agricultural energy projects that would typically require higher capital cost but could potentially yield greater savings and/or positive agricultural impacts. All this was done in an effort to improve the farm's energy efficiency and to facilitate adoption of less conventional, alternative clean energy technology applications, and to advance technologies that can be replicated at other agricultural operations in Massachusetts. These projects also contribute to the goals stated above.



## AgEnergy Grant Program

### AgEnergy-FY2018

In FY2018 the Baker-Polito Administration awarded 37 AgEnergy Traditional and Special Projects grants totaling \$908,259 to Massachusetts farmers to implement renewable energy systems and improve energy efficiency on farms. The awarded farms are projected to save over \$200,000 annually and reduce greenhouse gas emissions (GHGs) by over 660 tons each year.

Awarded through the Massachusetts Department of Agricultural Resources' (DAR) Agricultural Energy Traditional Grant Program (AgEnergy) in partnership with the MA Department of Energy Resources (DOER), funding was provided to farms in the towns of Hardwick, Lanesboro, Shelburne Falls, Chesterfield, West Wareham, Lunenburg, Marstons Mills, Shelburne, Deerfield, Dracut, East Sandwich, Westminster, Easthampton, Carver, Shrewsbury, Hadley, Rehoboth, West Brookfield, Upton, Sterling, Saugus, Berlin, Warwick, Conway, West Barnstable, Lincoln, Grafton, Worthington, West Brookfield, Lowell and Upton.

The grants are part of two agricultural energy programs, namely Traditional and Special Projects. Traditional projects focus on conventional energy efficiency and renewable energy technologies while Special Projects focuses on technologies that typically require higher capital cost but could potentially yield greater savings and/or positive agricultural impacts in an effort to improve the farm's energy efficiency and to facilitate adoption of less conventional, alternative clean energy technology applications.

The FY2018 Traditional AgEnergy Program funded twenty-nine (29) projects, a combination of energy efficiency and renewable energy projects including: over twenty roof- and ground-mounted photovoltaic systems for a variety of farm sector operations including vegetable & fruit, cow dairy cheese-making, vegetable & horticultural, year-round greenhouse, cut flowers, livestock, aquaculture, malting and vineyard operations.

As well several maple syrup operations will become more efficient by incorporating new reverse osmosis, evaporators, pre-heaters and steam hoods for their operations, a hog farm will well insulate a piglet stall with heating pads in lieu of heat lamps, and greenhouse operations installing new higher efficiency heating systems and higher efficiency glazing.

FY2018 Special Projects Program, in its second year, funded nine (8) projects, including for the first time a co-location solar PV projects, otherwise known as dual use of land. This technology emphasizes optimization of both farm land use for crops, grazing, etc. and energy generation to optimize a balance between agricultural production and solar energy generation. The project was a creative use of co-location to support a fresh water raceway and tank production aquaculture system.

Other Special Projects are for zero net energy structures and centralized walk-in coolers/freezers.

### AgEnergy - FY2019

In FY2109 the Baker-Polito Administration awarded 40 grants totaling \$954,803 to Massachusetts farmers to implement renewable energy systems and improve energy efficiency on farms. The awarded farms are projected to save over \$195,000 annually and reduce greenhouse gas emissions (GHGs) by 780 tons each year.

Awarded through the Massachusetts Department of Agricultural Resources' (DAR) Agricultural Energy Traditional and Special Projects Grant Programs in partnership with the MA Department of Energy Resources (DOER), funding was provided to farms in the towns of Amherst, Boston, Bridgewater, Charlton, Chesterfield, Colrain, Dalton, East Bridgewater, Harwich, Holliston, Hyde Park, Lakeville, Lanesborough, Leverett, Lincoln, Milton, Needham, Northborough, Pittsfield, Plymouth, Raynham, Royalston, Salisbury, Seekonk, Sheffield, South Deerfield, Stockbridge, Tyngsboro, Vineyard Haven, Wareham, West Barnstable, Westhampton, Westport, Winchendon and Worthington.

The grants are part of two agricultural energy programs, namely Traditional and Special Projects. Traditional projects focus on conventional energy efficiency and renewable energy technologies while Special Projects focuses on technologies that typically require higher capital cost but could potentially yield greater savings and/or positive agricultural impacts in an effort to improve the farm's energy efficiency and to facilitate adoption of less conventional, alternative clean energy technology applications.

The 2019 Traditional AgEnergy Program funded thirty-one (31) projects, a combination of energy efficiency and renewable energy projects. These include: a compost heat recovery project for a large-scale, dairy composting operation; a centralized chip wood boiler plant to serve multiple farm structures including greenhouses, maple sugar house, and farm stand replacing fossil fuels and an older cord wood boiler; a vertical well geothermal system for a new construction apiary production facility; maple syrup operations improvements with new reverse osmosis, evaporators, pre-heaters and steam hoods; energy efficiency improvements for greenhouse operations including insulation and thermal curtains; an add-on battery storage system to an existing PV installation; HVAC and walk-in cooler energy efficiency improvements for a newly renovated aquaculture production facility; and nineteen roof- and ground-mounted photovoltaic systems for a variety of farm sector operations including vegetable, fruit & berry, cranberry, livestock, mushroom, aquaculture and quail operations as well as for a new construction apiary production building.

The 2019 Special Projects Program, now in its third year, funded nine (9) projects. These include: a zero net energy greenhouse operation utilizing a centralized wood chip boiler plant and an add-on to an existing PV array, replacing propane and conventional electric; a centralized wood chip boiler heating plant serving a greenhouse operation, replacing an old inefficient outdoor wood boiler; a super-efficient urban greenhouse, with claims to be the first commercial agricultural operation under the City of Boston's new agricultural zoning regulations, and includes solar PV glazing integrated in the greenhouse roof, also a first use of this technology in MA; and six (6) projects are for walk-in coolers or freezers upgrades.

### Massachusetts Farm Energy Program (MFEP) -2018

MFEP is a full-service technical assistance program helping over 800 agricultural producers across all agricultural sectors for the past 10+ years. These projects range from simple lighting or refrigeration efficiency upgrades to commercial-scale solar photovoltaic systems, helping to improve the viability of agricultural businesses across the state.

In 2018, MFEP provided more than 100 Massachusetts farms with technical and financial assistance, and partnered with federal and state agencies, public utilities, and nonprofits to develop and complete 19 farm energy projects throughout the state. MFEP also helped 35 farms secure targeted audits or access public utility assessments that outline recommendations, payback periods, and fulfill funding requirements, providing essential information for farm business decision-making.

Projects installed in 2018 resulted in annual savings of over 440,000 kWh of electricity, and more than 300 tons of CO<sub>2</sub>. Twelve solar photovoltaic projects completed in 2019 are generating over 240,000 kWh of electricity annually.

Energy efficiency improvements installed at farms ranged from solar powered electric fencing for stables, to efficient refrigeration for fruit and vegetable producers, to energy efficient lighting across all farm sectors.

MFEP leveraged over \$123,000 in federal and ratepayer funds, and committed \$271,705 in MDAR incentives (including \$9,596 in MFEP funds) to energy efficiency and renewable energy projects in 2018. Farm energy projects for 2018 resulted in annual energy cost savings of approximately \$75,000, helping farms create and maintain jobs and reinvest savings into the farming operation and local economy.

In 2018, MFEP also matched MDAR funds with a USDA Rural Business Enterprise grant of \$33,000.

MFEP staff also provided one-on-one mentoring to 15 farms preparing to submit projects for MDAR's Agricultural Energy Grant Program and 17 submitting to USDA REAP – resulting in several highly competitive grant awards. Staff also presented information on completing these applications to farms via webinar, and distributed a bi-monthly newsletter. MFEP staff gave an interview about the program to Energy News Network, promoted the program at the Amherst Farmers' Market, and met with The Carrot Project about potential collaboration opportunities.

### Massachusetts Farm Energy Program (MFEP) -2019

MFEP is a full-service technical assistance program helping over 800 agricultural producers across all agricultural sectors for the past 11+ years. These projects range from simple lighting or refrigeration efficiency upgrades to commercial-scale solar photovoltaic systems, helping to improve the viability of agricultural businesses across the state.

In 2019, MFEP provided more than 110 Massachusetts farms with technical and financial assistance, and partnered with federal and state agencies, public utilities, and nonprofits to develop and complete 23 farm energy projects throughout the state. MFEP also helped 21 farms secure targeted audits or access public utility assessments that outline recommendations, payback periods, and fulfill funding requirements, providing essential information for farm business decision-making.

Projects installed in 2019 resulted in annual savings of over 525,000 kWh of electricity, over 11,000 therms, and more than 400 tons of CO<sub>2</sub>. Twelve solar photovoltaic projects completed in 2019 are generating over 430,000 kWh of electricity annually.

Energy efficiency improvements installed at farms ranged from energy efficient evaporators and reverse osmosis systems for maple producers, to compost heat recovery for dairies, to efficient refrigeration for fruit and vegetable producers.

MFEP leveraged over \$195,000 in federal and ratepayer funds, and committed \$293,549 in MDAR incentives (including \$15,133 in MFEP funds) to energy efficiency and renewable energy projects in 2019. Farm energy projects for 2019 resulted in annual energy cost savings of approximately \$118,000, helping farms create and maintain jobs and reinvest savings into the farming operation and local economy.

In 2019, MFEP also matched MDAR funds with a USDA Rural Business Enterprise grant of \$33,500.

MFEP staff also provided one-on-one mentoring to 17 farms preparing to submit projects for MDAR's Agricultural Energy Grant Program and 18 submitting to USDA REAP – resulting in several highly competitive grant awards. Staff also presented information on completing these applications to farms via webinar, and distributed a bi-monthly newsletter. MFEP staff tabled at the NOFA Conference and New England Vegetable & Fruit Conference, attended a ribbon cutting ceremony at We Grow Microgreens in Roslindale, and presented about the program to the Cape & Islands Farm Bureau in Yarmouth.

## Farm Viability Enhancement Program

Results as Of June 30, 2018

During Fiscal Year 2018, the Farm Viability Enhancement Program provided technical assistance to 11 farms with 11 completing business plans. Of these, 8 farms received funding and were placed under Agricultural Covenants protecting 371 acres. The Program impacted an additional 410 acres of leased land and protected land under participant management. FY2018 spending was \$325,000 in direct grants to farms and \$44,877.50 was spent on technical assistance costs to consultants and business plan writers. For FY18, 4 of the 8 participants invested \$97,821 in additional capital or an average of \$24,455 per farm.

Improvement projects for the year included: 1 farm purchased walk-in cooler, another a new tractor/loader, 1 farm purchased new truck, a farm bought 3 grain bins and an auger system, there was new hay shed, a farm purchased and construction of four high tunnels, one farm added a shop and equipment shed, three farms bought field equipment, and there was a farm stand addition project with an expanded parking area.

Since the Farm Viability Program was initiated in 1996, 501 farms have been selected to participate in the program. A total of 431 farms have now been protected by Covenants and received grant awards.

The 431 farms that have participated in the Farm Viability Enhancement Program result in:

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- 41,937.50 acres placed in protective covenants; 40,171 acres were impacted (additional acreage leased or used by participant farms.)
- A total of 82,108.50 acres of Massachusetts farmland have been impacted by the Farm Viability Program.
- Total of grants paid to participant farms \$19,096,472. Total spending on grants per acre placed in protective covenant: \$455 per acre.
- 73% of farmers in the Program invest additional capital beyond the grant amount to implement business improvement strategies. The average additional investment is about \$36,000 per farm.

## Massachusetts Emergency Food Assistance Program (MEFAP)

### Rose Arruda

Established to ensure that residents in need have access to a supply of quality food in the Commonwealth.

The Massachusetts Emergency Food Assistance Program (MEFAP) was established in 1995 to ensure that residents in need have access to a supply of quality food in the Commonwealth. The program is implemented through a unique partnership between the state and a private, non-profit food distribution network made up of four regional food banks. Funding is provided by the Massachusetts Department of Agricultural Resources.

MEFAP ensures a consistent supply of quality nutrient dense foods and locally grown fresh produce to a statewide network of over 800 emergency food providers. Each provider is a member of one of the four food bank distribution centers:

- The Greater Boston Food Bank
- The Merrimack Valley Food Bank
- The Food Bank of Western Massachusetts
- The Worcester County Food Bank

For Fiscal Year 2019, the most recent year for which data is available, the four regional food banks collectively distributed over 87.1 million pounds of food, about 27 million pounds (31%) of which was purchased through MEFAP. Total funding provided through the Department of Agricultural Resources for MEFAP was \$18,000,000, with \$1 million provided for operational costs for administrative and distribution costs.

## Urban Agriculture Program

### Rose Arruda

Urban Agriculture is an important component to the growing local food movement, nationally and across the Commonwealth.



MDAR recognizes that urban food production is playing an important role in addressing health, social, economic and environmental issues and is working with organizations and sister agencies to support initiatives for sustainable, urban food production.

Since its establishment in 2014, grants from the Urban Agriculture Program have been awarded to over 70 urban farming projects. The program addresses challenges facing urban farmers and supports municipalities with technical assistance to help with the development of zoning ordinances, public education and land assessments. The program is designed to build community partnerships, increase access to fresh, nutritious food for urban residents and to promote viable farming methods and support local initiatives that organizations and cities can replicate and benefit from.

### **Urban Agricultural Grant Awards**

Municipalities, non-profit organizations and other governmental entities are eligible to apply for grants in the range of \$5,000 to \$50,000 with preference for projects that attract multiple partners and funding sources. \$100,000 is also available for the purchase of land, applicant must have 25% cash match.

The Urban Agricultural Grant Awards helps more enterprises in cities across the Commonwealth to grow their own food. The funds help to address some of the challenges facing urban farmers, such as suitable land, nutrient-poor soils, high start-up costs, restrictive zoning rules and lack of farming and business training.

2018: MDAR received 11 proposals in fiscal year 2018; a total of 8 grants were awarded for proposals totaling \$342,775.00.

2019: MDAR received ten (10) proposals; a total of nine (9) grants were awarded for proposals totaling \$315,000. Projects ranged from soil regeneration, commercial greenhouses, mobile market vehicles, and infrastructure improvements.

### [Massachusetts Food Venture Program \(MFVP\)](#)

#### **Rose Arruda**

The Massachusetts Food Ventures Program (MFVP) is designed to advance the objectives of the Massachusetts Local Food Action Plan by providing funding through grants to support food ventures, primarily in communities of low or moderate income, including Gateway Cities and rural communities. Participants who are selected to participate in the program will be reimbursed up to \$500,000, and the minimum award is \$50,000. These grants are competitive one-year grants and are not re-occurring.

MFVP investments will include food processing infrastructure to meet the needs of the growing local food system; improved distribution systems to support opportunities for equitable access to fresh local food; and innovative retail outlet strategies that enhance access to healthy food.

**2018:**

MDAR received \$1,500,000 in funding for the Food Ventures Program in fiscal year 2018; the program received 10 applications; a first round of funding awarded a total of \$700,205.00 to 4 projects. A second round of funding awarded \$799,795 to three projects. Projects include new construction that will create temporary and full-time employment, as well as create food-based facilities that will foster job creation and expansion of food access and distribution in low to moderate income areas.

**2019:**

MDAR received \$1,000,000 in funding for the Food Ventures Program in fiscal year 2019; in Round one, the program received 3 applications, all three grants were awarded for proposals totaling \$811,176. In round 2, MDAR received 2 applications for FY'19-2 funding for the MFVP; one grant awarded, totaling \$67,154.

### Massachusetts Food Trust Program (MFTP)

**Rose Arruda**

The Massachusetts Food Trust Program (MFTP) is a statewide healthy food financing initiative aiming to increase access to healthy, affordable food in low-income urban, suburban, and rural communities with an emphasis on entrepreneurs producing, promoting, and selling healthy food grown, caught, or harvested in Massachusetts. The MFTP offers critical financing tools and business resources to launch and expand businesses, create jobs, increase economic opportunities, and stimulate the local economy.

**Eligible Applicants:**

A CDFI or Consortium of CDFIs with a designated lead, that demonstrates its ability to provide grants and loans across the Commonwealth which will further the goals of the Food Trust Program. Eligible applicants were: Community Development Financial Institutions certified by the United States Treasury. Preference was given to applicants that had previous experience working with food related entities that operate in underserved communities and that have strong finance backgrounds. Applicants had to demonstrate the ability to leverage private and federal funds.

The Massachusetts Department of Agricultural Resources awarded \$1,080,000 to the Consortium of Local Enterprise Assistance Fund (LEAF) - Lead; The Franklin County Community Development Corporation (FCCDC) for its management of the Massachusetts Food Trust Program (MFTP) in FY'19.

In FY'19, the program selected 12 applications, awards were a combination of grants and low-interest loans, totaling \$1,185,325.00 in FY'19. (Note that additional match funding is provided by LEAF and FCCDC).

The 12 projects, representing 7 counties, have some impressive economic impacts: they combine to have created or retained 421 jobs by our latest estimates, and will affect an estimated 500,000 people. Not all the projects have retail space, but the ones that do combine for around 90,000 square feet of retail space. All 12 projects accept or plan to accept SNAP and half accept WIC; all 12 offer local MA food. Two businesses are immigrant-owned, 6 are women-owned, and 5 are owned by entrepreneurs-of-color. Since its inception, the program has received 57 total applications to the MFTP to date, 45 applications were submitted before June 30, 2019 (FY19).