

## 2022 Annual Report

Massachusetts
Department of
Agricultural Resources


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# The Commonwealth Of Massachusetts 

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## Commissioner's Letter

## John Lebeaux, Commissioner

After two years in which the Covid-19 pandemic dominated virtually all aspects of society, in 2022 the world began to pivot back from a world in emergency response mode and moved to the proverbial "new normal". Similarly, the Massachusetts Department of Agricultural Resources (MDAR), the State Reclamation and Mosquito Control Board, and the regional Mosquito Control Projects began to resume business more traditionally, but not identically to their pre-pandemic postures.

In 2022, as in countless other years, what most greatly affected MDAR's constituents was the weather. Drought conditions began to develop in the state in May, by July all regions were in drought conditions, and by August most regions were categorized as being at a Critical Drought Status by the state's Drought Management Task Force. Ironically, improvements to the drought conditions did not occur until late fall, well after the growing season was substantially completed. The 2022 drought was preceded by an extremely wet year in 2021. The weather conditions each year adversely affected agricultural production.

Included in this report are detailed summaries of the activities of the Massachusetts Department of Agricultural Resources, and its sister agency, the State Reclamation and Mosquito Control Board. I encourage you to review them to become aware of all the excellent work that occurred in 2022. There are a few highlights I'd like to feature.

Known by many as MDAR's signature program, its Agricultural Preservation Restriction Program increased the permanent protection of some of the best farmland in the Commonwealth in 2022 by adding nine projects, totaling 261 acres, bringing the total APR census at year-end to 968 active APRs on over 75,000 acres.

The Mass Animal Fund works to prevent animal homelessness through support from Massachusetts taxpayers for the responsible care of animals and the prevention of animal homelessness. In 2022, the Department of Agricultural Resources' Mass Animal Fund collected close to $\$ 400,000$ in taxpayer donations through line 33 f on the Resident Income Tax Form. In addition, the Fund also received a $\$ 75,000$ grant from The Stanton Foundation and $\$ 100,000$ in state support through the Massachusetts FY22 Budget. To date, the fund has collected over $\$ 3.9$ million in donations and state support for its efforts. This tremendous backing has allowed the Fund to help over 17,600 local Commonwealth animals in need and provide animal law and welfare training to over 700 Municipal Animal Control Officers so that they can better assist animals in the communities they serve.

MDAR formed an Environmental Justice Task Force comprised of representatives from each of the agency's division. The Task Force has made progress on improving language access, increasing
awareness of programs and services, and building a more inclusive outreach strategy, to ensure equal access to MDAR programs and services.

In 2022, MDAR received $\$ 7.5$ million from USDA to implement the Local Food Purchase Assistance Cooperative Agreement (LFPA) Program. Through a competitive RFR process, MDAR has selected sixteen (16) organizations to implement the goals of the LFPA Program. The purpose of the program is to maintain and improve food and agricultural supply chain resiliency through the purchase of domestic food from local and regional producers, by targeting purchases from Socially Disadvantaged farmers/producers and distribution to underserved communities.

In 2022, MDAR designed and developed the MassGrown Wellness Program to address the specific mental health and wellness needs of the Massachusetts agriculture community and its supporters. Ongoing resources and services are being organized and developed based on the specific conditions faced by the State's farmers, ranchers, supporters, stakeholders, and partner organizations to address mental health and wellness challenges throughout the State's agriculture community.

In 2022 MDAR found additional populations of Spotted Lantern Fly (SLF) in Fitchburg, Massachusetts making this invasive species established in Massachusetts. Additional populations were found in Springfield, Worcester, and Shrewsbury. MDAR's mission is to slow the spread as eradication of these populations is unlikely and if it were to happen would take several years. MDAR continues to survey, monitor, and follow up on reports.

In November of 2022 MDAR updated its policy relative to the use of pesticides on marijuana. With the federal legalization of hemp, EPA began approving use of pesticides on Hemp. MDAR recognized that hemp and marijuana are the same, only distinguished by a legal definition. MDAR also recognized that marijuana growers needed to expand their tools when combatting pest problems. The update allows the use of pesticides under certain conditions. The conditions set forth by MDAR will ensure that products used will pose the least amount of risk.

Production regulations for Hemp were promulgated on August 5, 2022, by MDAR. This allows for more clear and concise requirements for the growers and allows MDAR to enforce the requirements more efficiently.

The Mosquito Control for the Twenty-First Century Task Force ("MCTF") was created pursuant to Chapter 120 of the Acts of 2020. The MCTF was created to review the current structure and practices of state funded mosquito control. From the review the MCTF was to make recommendations to the legislature on how to change mosquito control. MDAR held a seat on the MCTF. The MCTF developed twenty-three majority voted recommendations, some of which would affect the State Reclamation and Mosquito Control Board ("SRB") and the MDAR Pesticide Program.

In October 2022, the Climate Smart Agriculture Program (CSAP) awarded $\$ 2,005,000$ in grants to Massachusetts agricultural operations to install practices that help them adapt to changing climate conditions and reduce their environmental footprints. CSAP is a competitive grant program that incentivizes voluntary adoption of conservation, soil health, renewable energy, energy efficiency, and climate smart agricultural practices allowing agricultural operations to advance conservation solutions and ensure economic resiliency. In addition, agricultural operations will install practices that help mitigate their impacts on climate change.

The Baker-Polito Administration came to conclusion in early 2023, and with that, along with a brief period assisting the incoming Healey-Driscoll Administration, my eight-year tenure as Commissioner of MDAR and Chair of the SRB. There are so many to thank, and rather than to inadvertently exclude
anyone, I will simply offer my profound thanks to the countless individuals who provided support and cooperation as we worked to the best of our abilities to deliver our services to the public.

I wish to publicly acknowledge my wonderful, talented colleagues at MDAR, the SRB, and the regional Mosquito Control Projects (MCPs). I came to my position eight years ago having never previously worked in state government. What I found was a group of very hard working, very thoughtful public servants who every day worked to advance our mission "to help keep the Massachusetts' food supply safe and secure, and to work to keep Massachusetts agriculture economically and environmentally sound".

I must recognize the three individuals with whom I most closely worked while I held my position at MDAR. Jason Wentworth, followed by Ashley Randle, served as Deputy Commissioner for Policy and Legislative Affairs. Each very greatly and very positively advanced the width and breadth of the agencies’ work. Alisha Bouchard served as Deputy Commissioner and Chief of Staff from my first day on the job to my last. Her wisdom, incredible work ethic, good humor, and incredible instincts were a tremendous asset to our colleagues, our constituents, and to me far beyond my ability to properly express.

Addendum 2/27/2023: Lastly, I am delighted to offer my deepest and most sincere congratulations and well wishes to Ashley Randle who is succeeding me as MDAR Commissioner and SRB Chair in the Healey-Driscoll Administration. I have great confidence that with the fabulous MDAR/SRB/MCP team she will do great things in the position.

Respectfully and very gratefully submitted,

## John Lebeaux

Commissioner
January 4, 2023

## 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.


## Snapshot of Massachusetts Agriculture

## Myron Inglis, Senior Economist

Massachusetts has 7,241 farms on 491,653 acres. ${ }^{1}$ 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" ( $94 \%$ ). ${ }^{2}$ 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. ${ }^{3}$

Massachusetts' farmers face several challenges including high land prices and developmental pressure. Massachusetts is the third most densely populated state in the U.S with 883 individuals per square land mile ${ }^{4}$, and is ranked the $4^{\text {th }}$ highest state for average farmland value at $\$ 11,100$ per acre. ${ }^{5}$ The high land prices and 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 $5^{\text {th }}$ in the nation for direct market sales with over $\$ 100$ million, and ranks $3^{\text {rd }}$ in the nation for direct market sales per farm at $\$ 55,384$. Direct market sales account for $21 \%$ of


[^0]the state's total sales of agricultural products; that is the highest proportion in the country. Additionally, Massachusetts ranks $8{ }^{\text {th }}$ in the nation for direct sales per capita.

Other input costs are high for Massachusetts farmers, particularly labor costs. Farmers on average spent $32 \%$ of their expense budget on hired labor costs. As a point of reference, the next highest expense on average is feed costs which accounts for $8 \%$ of total expenses.

## 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. ${ }^{6}$ 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. ${ }^{7}$ Massachusetts cranberry growers contributed over $\$ 59$ million and $\$ 49$ million to the agricultural economy in 2017 and 2018, respectively. ${ }^{8}$ The cranberry industry has struggled in recent years as the industry contributed as much as $\$ 103$ million to the Massachusetts agricultural economy in 2011. ${ }^{9}$

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.

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

[^1]offset negative impacts of trade disputes. ${ }^{10}$ 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 118 dairy farms in $2022^{11}$ that produced 197 million pounds of milk. ${ }^{12}$ 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 2022, 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). ${ }^{13}$ In 2022, the average cost of production exceeded the price of milk for all 12 months which triggered the tax credit for every month. This means that the full $\$ 6$ million was distributed to dairy farmers. The resulting tax credit payment to Massachusetts dairy farmers was $\$ 3.10$ per hundredweight of milk. 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 which ensures that a competitive milk market will exist. 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.

[^2]
## Financial Report

## Cullen Roberts, Chief Financial Officer

In FY22, MDAR had total expenditures of $\$ 65.0 \mathrm{M}$ which represented a $10 \%$ decrease, or $\$ 7.2 \mathrm{M}$, as compared to FY21 when expenditures were $\$ 72.2 \mathrm{M}$. The decline was primarily driven by the lack of one-time funding, of which MDAR spent $\$ 10.6 \mathrm{M}$ in FY21, which was authorized in Chapter 124 of the Acts of 2020 and went primarily to support food security measures in the early stages of the COVID-19 pandemic with $\$ 9,050,000$ of this going directly to the Greater Boston Food Bank to strengthen the Massachusetts Emergency Food Assistance Plan (MEFAP). This one-time funding that was exhausted in FY21 was partially offset by an increase in spending from a new supplemental budget, Chapter 102 of the Acts of 2021 (commonly referred to within MDAR as "ARPA 1.0"), which passed in FY22 providing MDAR with an additional $\$ 44.7 \mathrm{M}$ in funding of which $\$ 2.8 \mathrm{M}$ was expended in FY22. The remaining $\$ 41.9 \mathrm{M}$ from APRA 1.0 will be spent between FY23-FY27.

The chart below depicts MDAR expenditures, in FY22, by funding source:


Figures in Millions (rounded)

|  | FY22 |
| :--- | ---: |
| 1. State | $\$ 45.0$ |
| 2. Capital | $\$ 15.0$ |
| 3. Trust | $\$ 1.0$ |
| 4. Federal | $\$ 4.1$ |
|  | $\$ 65.0$ |

## Budgetary Appropriations

## Administration Appropriation (2511-0100)

The Administration appropriation funds the day-to-day operations of the agency.
MDAR had total expenditures of $\$ 8.6 \mathrm{M}$ in FY 22 which represented a $14 \%$ increase, or $\$ 1.1 \mathrm{M}$, as compared to FY21 when expenditures were $\$ 7.5 \mathrm{M}$. The primary drivers of this increase are an increase in the number of earmarks (grants) as well as an increase in employee salaries and benefits costs.

Administration appropriation spending by category in FY22 includes:

- Employee salaries and benefits were $\$ 5.9 \mathrm{M}$.
- Earmarks accounted for $\$ 1.7 \mathrm{M}$ including $\$ 0.75 \mathrm{M}$ for Buy Local organizations.
- Leased facilities and utilities were $\$ 0.2 \mathrm{M}$.

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.

MDAR had total expenditures of $\$ 2.2 \mathrm{M}$ which represented a $\$ 1.6 \mathrm{M}$ increase over FY21. The driver of this increase was a one-time expenditure with the University of Massachusetts Pesticide Analytics Laboratory (MPAL) for the costs associated with the purchase and setup of specialized equipment used to perform the necessary scientific tests required of the hemp regulation program. This funding was supported in previous state operating budgets and approved for a Legislative PAC (prior appropriation continued) in several previous budgets.

## Supplemental Food Appropriation (2511-0105)

The Supplemental Food appropriation provides for the purchase of supplemental foods for the Massachusetts Emergency Food Assistance Program (MEFAP). MDAR had expenditures of $\$ 30.3 \mathrm{M}$ in FY22 which represented a $0.4 \%$ increase, or $\$ 0.1 \mathrm{M}$, as compared to FY21 when expenditures were $\$ 30.2 \mathrm{M}$. The overwhelming majority of this funding goes to 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. In FY22, the funding provided to the Greater Boston Food Bank was able to provide $29,445,086$ equivalent meals.

The agency utilizes $2 \%$ of the Supplemental Food funding to administer the program.

## Community Food Security Appropriation (2511-0107)

This appropriation was first established in FY22 and is entirely earmarked, representing 21 earmarks in FY22 totaling $\$ 1.035 \mathrm{M}$. These earmarks are for the advancement of community food security and the protection of public access to sufficient, safe, and nutritious food.

## Integrated Pest Management Appropriation (2511-3002)

The Integrated Pest Management (IPM) program had expenditures of $\$ 74,587$ in FY22 which represented an $\$ 8 \mathrm{~K}$ increase over FY 21 .

## Capital Accounts

MDAR had capital (bond) expenditures of $\$ 15.0 \mathrm{M}$ in FY22 which represented a $14 \%$ decrease, or $\$ 2.5 \mathrm{M}$, as compared to FY21 when expenditures were $\$ 17.4 \mathrm{M}$. The decline was primarily driven by a decrease in spending on Food Security Infrastructure Grants (FSIG), with $\$ 3.3 \mathrm{M}$ spent in FY21 versus $\$ 2.2 \mathrm{M}$ in FY22. This capital program, which first launched in FY21 by EEA in response to COVID, was extremely popular and continues to be a priority for future investment despite the reduction in funding in FY22. The other primary reason spending was down in FY22 versus FY21 was due to the one-time authorization by the Secretariat of Administration and Finance (ANF) to allow carryforward of unspent funding from FY20 to FY21 due to the impact that COVID had on the ability of projects to be completed by June $30^{\text {th }}, 2020$. This primarily benefitted Agricultural Preservation Restrictions (APRs) and the Farm Viability Protective Covenants (FVPC) where $\$ 1.6 \mathrm{M}$ more was spent in FY21 than FY22 as the result of this FY20 carryforward funding.

Capital funded programs include the Climate Smart Agriculture Program (CSAP), Agriculture Preservation Restriction (APR) Program, Farm Viability Enhancement Program (FVEP), Urban Agriculture, Agriculture Food Safety Improvement Program (AFSIP), the Massachusetts Food Venture Program, the Cranberry Bog Renovation Program, Food Security Infrastructure Grants (FSIG) and the Massachusetts Food Trust which has been supported through an Interdepartmental Service Agreement (ISA) with the Executive Office of Housing and Economic Development for $\$ 1 \mathrm{M}$ each fiscal year (which will end in FY23).

In FY21 and FY22, there were payments made for $\$ 2.875 \mathrm{M}$ (each year) to the UMass Cranberry Research Station which was authorized in the 2018 Environmental Bond Bill.

## Federal Funds

MDAR had federal expenditures of $\$ 4.1 \mathrm{M}$ in FY22 which represented a $17 \%$ decrease, or $\$ 0.8 \mathrm{M}$, as compared to FY21 when expenditures were $\$ 4.9 \mathrm{M}$. The decline was primarily driven by a decrease in spending on APR Improvement Projects and other capital programs that are partially supported with the Farm and Ranch Lands Protection grant. This funding source represents 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 (WIC \& Senior) Coupon Program and Food (Produce) Safety which had expenditures in FY22 of $\$ 948 \mathrm{~K}$ and $\$ 558 \mathrm{~K}$ respectively.

## Trust Funds

Trust funds totaled $1.5 \%$ of agency spending in FY22 totaling $\$ 974 \mathrm{~K}$ which represented an $11 \%$ increase, or $\$ 0.1 \mathrm{M}$, as compared to FY21. The primary trust accounts from which spending occurred were the Homeless Animal Prevention and Care Fund (39\%), the Dairy Promotion Trust Fund (26\%), and the Regional Greenhouse Gas Initiative Auction Trust Fund (17\%).

## 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 was offset with an increase in revenue in FY20.

| Year | Revenue |
| :---: | :---: |
| 2018 | $\$ 6,563,048$ |
| 2019 | $\$ 5,093,355$ |
| 2020 | $\$ 7,705,511$ |
| 2021 | $\$ 6,672,992$ |
| 2022 | $\$ 6,823,370$ |

## Produce Safety Division

## Michael Botelho

The goal of the Produce Safety Program is to assist in the prevention of produce related food-borne illness in Massachusetts while increasing market opportunities for growers. The Produce Safety Division provides grower education, on-farm technical assistance, and conducts regulatory inspections and voluntary third-party audits.

## Produce Safety Inspection Program

The Produce Safety Division continues to enforce the Food Safety Modernization Act (FSMA) under the most recent Cooperative Agreement Program (CAP) with the FDA, signed in 2021. The funds of this CAP will be used for the further development and expansion of the Produce Safety Inspection Program. In the past few years, MDAR has formally adopted the Produce Safety Rule (PSR) in its entirety as state statute and obtained the regulatory authority to deploy a produce inspection program. 2022 served as the fifth year of compliance for eligible farms and the fourth year of PSR inspections in Massachusetts. The Program continues to utilize an "educate before and while we regulate" approach, allowing inspectors the latitude necessary to work with farmers to come into compliance under the PSR. From 2019 to date, the Produce Safety Division has successfully completed a total of 198 inspections on over 100 farms throughout the Commonwealth of varying sizes, types, crops, and methods of growing. In 2022, the Produce Safety Division performed 79 inspections, as well as assisted 1 FDA traceback investigation centered around tomatoes imported from out-of-state.

Continued Implementation of the PSR: In early 2023, FDA will end its enforcement discretion for Agricultural Water and has issued new guidance for Harvest and Post-Harvest Water, under Subpart E of the PSR. The Produce Safety Division, in coordination with the FDA and its neighboring state partners, has spent 2022 preparing technical assistance to support the first phase of implementation of the new rule in 2023. Additionally, 2022 saw the publishing by the FDA of the FSMA Food Traceability Rule, with an eye to begin implementation in 2026. The Produce Safety Division will continue to prepare technical assistance to support the roll out of the new traceability rule.

## Commonwealth Quality Program

The Commonwealth Quality Program (CQP) continues to serve an important role in promoting the safe growing, harvesting, packing, and holding of Massachusetts local fruit and vegetables as well as ensuring that local growers have market access for their crops. CQP continues to be the leading program of its kind in the United States and serves as a model for future adaptation by other states. Audits are conducted utilizing a program checklist, with both an audit report and certificate supplied to the farm upon the completion of the audit process. Importantly, CQP audits are free to growers, encouraging participation and relieving a costly financial burden from them. In addition to produce, CQP is also available to cranberry growers and maple syrup producers. CQP is an accepted third-party audit by all major New England retailers such as Wegmans, Whole Foods, Big Y and Hannafords. The Produce Safety Division has streamlined the Produce Safety Rule (PSR) requirements into the CQP standards to ensure that farms who receive audit support are also in compliance with the rule. This allows for farms that are both covered under the PSR and require a third-party market access audit to receive just one visit from the Produce Safety Division, saving growers valuable time during the growing season. Since any farm, regardless of covered status under the PSR, can request an audit, CQP continues to be a successful connection between the Produce Safety Division and smaller farms that would otherwise fall through the cracks. CQP has retained a steady membership since its inception. 2022 saw a grand total of 103 successful CQP audits spread out on 99 produce farms, 1 cranberry bog, and 3 maple sugar houses.

## Farm Registration

The Produce Safety Division is actively building an inventory of farms that grow, harvest, pack, or hold fruits \& vegetables. Growers are required to register their farm to determine their coverage status under the Produce Safety Rule. Registering also helps farms access resources on grant programs, receive news updates, request a pre-inspection visit, and engage in more training opportunities. In 2022, the Produce Safety Division developed and tested a registry website which is planned to be implemented in 2023. Registration also serves as the first step for produce farms interested in joining the Commonwealth Quality Program.

## Produce Safety Education and Technical Assistance

The Produce Safety Division offers education and technical assistance for produce farms to help prepare for inspections and compliance with the PSR as well as general farm food safety training. In 2022, the Program conducted technical assistance and educational visits on $100 \%$ of requesting farms in the jurisdiction. The Produce Safety Division successfully executed an ISA agreement with the UMass Agricultural Extension for the delivery of 3 Produce Safety Alliance Grower Training courses, with 2 more planned for early 2023. These Grower Training courses are required under the PSR for covered farms. The Produce Safety Division performed 102 technical assistance and educational visits in 2022. MDAR and UMass are also jointly participating in a USDA Specialty Crop Block Grant for educating farms on the importance of on-farm water quality and a cost-share reimbursement for agricultural water testing. The Produce Safety Program also supported state and regional partners, including the Northeast Center to Advance Food Safety, Produce Safety Alliance, National Association of State Departments of Agriculture, and the Association of Food and Drug Officials, through participation and leadership at conferences, meetings, and workshops. Program staff also attended state and regional annual meetings for commodity groups, Farm Bureau, buy-local organizations as well as beginning farmer groups to support education and outreach objectives.

## Division of Agricultural Markets

Mary Jordan, Division Director
The Division of Agricultural Markets Team offers expertise in the development and support of innovative market venues, business expansion, grant opportunities, consumer, and industry outreach.

This past year, the Division of Agricultural Markets Team acknowledged challenges as well as embraced opportunities to increase access to the local food system through creative marketing initiatives, promotion initiatives, strategizing on branding as well as creative content for social media messaging. Division staff have begun the journey of strategic planning to better understand the goals and objectives for the Division to initiate both for short and long program planning for both consumers as well as for the agricultural industry.

Please review in the next few pages of the programs and initiatives that the Markets Staff have implemented to accomplish the mission of the Division which is to foster the sustainability of Massachusetts agribusinesses through the innovative implementation of marketing, public relations and educational programs. These initiatives are designed to keep Massachusetts's agriculture economically viable, while also serving the needs of consumers by providing high quality, locally produced foods agricultural products.

## Agricultural Education

## Katie Rozenas-Hanson

Interest in agricultural education continues to be strong with student enrollment at the four Agricultural High Schools in the Commonwealth increasing year over year for the past two academic years (except for one where enrollment has stayed the same). These highly specialized public secondary schools provide the future generations 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 Agricultural High Schools are as follows

| Agricultural High School Enrollment by Year |  |  |
| :--- | :---: | :---: |
|  | $2020-2021$ | $2021-2022$ |
| Bristol | 448 | 499 |
| Norfolk | 588 | 588 |
| Essex | 1564 | 1654 |
| Smith | 528 | 547 |

Agricultural Education Youth Organizations continue to be a popular outlet for students with the Massachusetts Chapters of the FFA and 4-H Club. Although suspended for the last two years, due to the COVID-19 pandemic, the Massachusetts FFA Convention was back in full swing in March 2022, hosted in Sturbridge. Representatives of the Massachusetts FFA, from Minuteman High School, represented Massachusetts FFA with a booth in the Hall of State during the National FFA Convention and Expo, in Indianapolis. This event typically draws over 65,000 students from all over the United States.

Additionally, Agriculture Day at the State House was cancelled in 2020, 2021, and 2022 so FFA and the 4-H groups have not had the opportunity to work with other agricultural commodity and organizations
during their state-awareness day in Boston. Nevertheless, both groups not only emphasize the agricultural heritage of our past but also look to the future and impart relevant real-life skills that will serve members well as they come of age and enter society as prepared young adults.

Furthering Agricultural Education in the Elementary and Secondary Schools is so important. Massachusetts Agriculture in the Classroom (MAC) is an 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 22 years in producing a hard copy calendar filled with Massachusetts farming landscape photos - all selected via an annual public photography contest. The annual Calendar includes Fun Facts and Teaching Tips 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 2022, 2500 calendars were produced that were sold and distributed to teachers and the general public. As a means of promotion and awareness, MDAR maintains an Agriculture Education website that 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.

## Agricultural Event Certification Program

## Katelyn Rozenas \& Phu Mai

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 2022, MDAR processed 160 applications for certified agricultural events. This number represents an increase of about $20 \%$ from 2021 figures which shows increasing demand and interest for our wineries to sell direct to consumers in the Commonwealth.

## 2022 Massachusetts Fairs Annual Report

## Fran Pearson, Agricultural Fairs Coordinator

From the Berkshires to Cape Cod, Massachusetts boasts 39 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!

Commissioner Lebeaux, Deputy Commissioner Ashley Randle along with staff traveled throughout the commonwealth to visit approximately $90 \%$ of the state's 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).


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 National Competitions.


## 2022 Massachusetts Building 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 1.6 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.

In 2022, we had a total of 34 Exhibitors, which breakdown as follows:
> 6 Informational Government Agencies
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exhibitors included:
$>$ Common Ground Cidery, Inc.- North Brookfield, MA
$>$ Rustic Wood Flags by Wedge- Hadley, MA
$>$ S \& P Foodies- Agawam, MA
> The Happy Face Painter-Chicopee, MA
All four new exhibitors 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. 2022 Attendance total: 1,603,354

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

## 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 2022 recipient of the Massachusetts Building Wall of Fame award was presented to MDAR staff member Rick Leblanc for his 20 plus years of dedication to the building management. The 2022 Massachusetts Ag Calendar was unveiled, and the photo winners were recognized.

Despite heavy rain, several exhibitors including one band set up on the front lawn to sample products, sell goods and provide entertainment.

## 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 Executive Office of Energy \& Environmental Affairs (EEA), Massachusetts Office of Tourism and Travel (MOTT), Massachusetts State Lottery and Commissioner John Lebeaux, Deputy Commissioner Ashley Randle, Deputy Commissioner Alisha Bouchard, MDAR staff members: Rick Leblanc, Laurie Rocco, Katie RozenasHanson, Howie Vinton, Phu Mai, Bonita Oehlke, for all their assistance in a variety of ways to make the 2022 fair a success.

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

## Agricultural Tourism

## Phu Mai

2022 saw more of a return to near normal levels of public interest and engagement at agritourism farms in Massachusetts. During the late winter season, maple sugar houses and sugar shacks were busy welcoming guests in for tours and pancake breakfast events complete with local maple syrup. Pick Your Own (PYO) farms enjoyed steady business throughout the spring, summer, fall and early winter seasons with berries, apples, pumpkins, and Christmas trees along with adjacent family-friendly activities at the farm for people to experience and enjoy.

The Division of Ag Markets continues to promote agritourism through its social media channels. Even with the return of in-person events and industry trade shows, the value of social media promotion remains high and shows no signs of waning as more and more people turn to their personal devices for their entertainment and informational needs. Thanks to our consistent messaging of buying local and
supporting Massachusetts agriculture, we continue to grow our followers. We are excited to embark on a new strategic initiative in 2023 to increase our online social media presence with the goal of reaching even more people, further spreading our message of supporting our local farmers.

In March, the Final Report of the Massachusetts Agritourism Study Commission was published. It was the culmination of efforts by the Commission that was tasked with reviewing national best practices relative to agritourism to apply to Massachusetts and reviewing current state and municipal laws and regulations relative to agricultural zoning, policies and grant programs offered by various state agencies including MDAR and the Massachusetts Office of Travel and Tourism. Created by an act of the Massachusetts General Court, the Commission, comprised of and state officials, legislators, and agricultural industry representatives, met over the course of 2021 and made recommendations that include adding agritourism language to Massachusetts General Law Chapter 40A, Section 3 (c.40A § 3) and defining the term agritourism which was codified through legislation introduced by State Senator Edward Kennedy's Office. As always, MDAR will continue to be supportive of agritourism initiatives and programming and recognizes its economic benefit to Massachusetts farmers. The Final Report of the Agricultural Study Commission can be found here.

## Boston Public Market Commission

## David Webber

The Boston Public Market officially opened to the public on July 30, 2015. Located at 100 Hanover Street in Boston, in a building owned by the Department of Transportation, the market includes permanent and seasonal vendors which feature foods grown and produced from Massachusetts and New England.

The Public Market's Commission's role is to: Define the mission and vision of a public market in downtown Boston; Confer with participants and parties from the public and private sector involved with the planning, financing, design, and construction of said public market; Work with relevant public and private sector parties to write guidelines for
 an eventual market operator; Work with the appropriate state agencies to advertise for, and select, a market operator; Define the terms of a lease between the Massachusetts Department of Transportation (MassDOT) and the operator, subject to approval of MassDOT; and Receive and review quarterly updates from the operator on the financial health of the market, its adherence to the mission and other issues as necessary.

The Commission met on the following dates in 2022: May 19 and October 19. Due to the pandemic, meetings were held virtually pursuant to Chapter 639 of the Acts of 1950 and Section 2A of Chapter 17 of the Massachusetts General Laws.

The Public Market Commission is chaired by MDAR Commissioner John Lebeaux with 8 members from the following agencies and organizations: Executive Office for Administration and Finance; Executive Office of Energy and Environmental Affairs; The Department of Transportation; State Senate; House of Representatives; Boston Planning and Development Agency; The Rose Kennedy Greenway Conservancy and a City of Boston Appointee. New representatives from the following organizations joined the Commission in 2022: Boston Planning and Development Agency, City of Boston, Executive Office of Energy and Environmental Affairs and the Rose Kennedy Greenway Conservancy.

A focus of the meetings and conversation in 2022 focused on the market's recovery from the effects of the Covid-19 pandemic.

## Annual Tomato Contest

The 37th Massachusetts Tomato Contest was held on the Blackstone Street Plaza outside the Boston Public Market on Tuesday, August 23, 2022. The friendly contest, open to commercial tomato growers, is coordinated by the Massachusetts Department of Agricultural Resources and sponsored by the New England Vegetable and Berry Growers Association in cooperation with Mass Farmers' Markets and hosted by the Boston Public Market. It is designed to increase awareness of local agriculture.

The tomatoes were judges on flavor, firmness/slicing quality, exterior color, and shape by a panel of judges, including media, chefs, and government officials. Ninety-five entries were received. First, second, and third place tomato trophies were awarded in all four categories: heaviest, slicing, cherry, and heirloom. The top five in each category were given certificates. Coverage of the event included media representing radio, newspaper, and television news.


## Export Market Development

## Bonita Oehlke

Developing and expanding the sales of Massachusetts products internationally helps the Commonwealth's food and agriculture businesses to access more customers and diversify market opportunities. The Massachusetts total export value of Ag \& Related Products (including seafood) was valued at \$432 million. The value of Processed Food totaled $\$ 549$ million. Source: USDA/FAS/GATS

MDAR 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 Northeast, MDAR's major resource and partner. Funding is available through the USDA Farm Bill's Market Access Program, administered by Food Export. Small and medium size businesses can receive $50 \%$ reimbursement though the "Branded Program" for eligible expenses such international marketing and promotion support, trade events and label modification.

Branded Funds facilitated to Massachusetts companies in 2022 totaled over $\$ 908,840$ in awards to 33 Massachusetts food businesses. Over $34 \%$ of the awards were to 17 seafood companies, totaling $\$ 310,665$. MDAR has been supporting seafood export marketing since 2004. The Branded Program is facilitated by MDAR's membership in Food Export USA Northeast.

Due to the retaliatory trade tariffs in 2019, Agricultural Trade Promotion Program (ATP) funds became available from USDA FAS, providing support for new activities. Massachusetts continued a focus on
market development for the aquaculture sector last year, considering the value of the industry and since production has doubled in the past five years.

ATP funds were used in support an EU Focused Trade Mission in late September. Massachusetts shellfish farmer/dealers traveled to the EU and met with importers and buyers in the Netherlands and France, to explore market opportunities for oysters and clams. Representatives from ARC/Chapin Farms, Dennis; Island Creek Oyster, Duxbury; John Nagle Co, Boston; Plymouth Rock Shellfish Growers, Plymouth; and Wellfleet Shellfish Company, Wellfleet, sampled live Massachusetts oysters and clams with potential customers during one-on-one meetings and receptions in the two cities. The major EU shellfish importers are in the Netherlands. The highest EU country consumption of oysters is in France.

Educational programs during the Mission helped to convey that Northeast harvesters and dealers maintain stringent safety protocols in growing and handling oysters, and that the oysters are grown in clean health water which is routinely monitored.

The trade of molluscan shellfish (mussels, clams, oysters, and scallops) between the European Union and the U.S. resumed in early 2022, following a 10 -year break after the two sides resolved regulatory disputes. At this time, shellfish from the two states of Massachusetts and Washington are allowed to be exported to the EU.

The EU Focused Trade Mission was an important opportunity for Massachusetts shellfish dealers to explore a new market that appears to offer good potential. The European Shellfish trade representatives were enthusiastic about the quality and variety of the oysters and clams they sampled. They were also impressed with the professionalism and expertise of the US shellfish growers to produce highly marketable products that could be appealing to European consumers.

Plans for follow-up activities are in progress, including hosting EU importers and buyers to Seafood Export North America in 2023 and to Massachusetts growers in the spring. MDAR accessed USDA FAS funds through Food Export USA Northeast for this activity and had activity coordination support from the organization.

2022 featured the Massachusetts Avenue at Seafood Expo North America, Boston, organized in partnership with the Division of Marine Fisheries (DMF). Eight companies participated: Aquaculture Research Corporation, Dennis; Cape Seafoods, Gloucester; Channel Fish Processing, Braintree; Intershell International, Gloucester; John Nagle, Boston; North Atlantic Pacific Seafood, Gloucester; Plymouth Rock Oysters, Plymouth; and Superior Lobster, Marshfield. The USDA funded Branded Program offset $50 \%$ of eligible costs for these exhibitors and DMF's Marketing Program provided signage and merchandising.

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 one-on-one with international buyers. A Buyers Mission was held in Boston in early 2022. Massachusetts companies participated in Missions that followed including the Summer Fancy Food Show, Natural Products Expo, National Restaurant Association trade show, Private Label trade show, and Seafood Expo North America. MDAR participated in the Export Expo in Boston in 2022, coordinated by the MA Export Center in Boston. Other partners include the Cranberry Marketing Committee, the National Confectioners Association, and the Specialty Food Association.

Deputy Commissioner Ashley Randle joined two USDA Foreign Agriculture Service (FAS) Agricultural Trade Missions in 2022, to London, United Kingdom, and to Madrid, Spain. The Missions offered a unique opportunity to promote and educate about Massachusetts agriculture and learn more about international agriculture trade policy work that companies must navigate. The groups joined in-depth market briefings from FAS and participated in site visits to see American branded products and store promotions. Both programs focused on expanding U.S. exports and seeking ways to reduce tariffs and non-tariff trade barriers to create equitable access to the marketplace, and encourage science-based decision making in terms of agricultural and food policies.

## Farm \& Market Report

## Richard LeBlanc

MDAR's bimonthly e-newsletter, The Farm and Market Report, continues to be the Department's most important 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 8200 email subscribers. This Report, as well as timely eblasts, keeps the ag industry informed with up to date with grant information and resources. We encourage anyone looking for Massachusetts news related to agriculture, to subscribe by sending a request to Rick LeBlanc at Richard.LeBlanc@mass.gov.

## Farmers' Market Program

## David Webber



There were 217 farmers markets in 2022, an increase of five markets from 2021 and 22 more than 2020. Forty-one winter farmers markets were open during the 2021-2022 winter season, up from 36 winter markets in 2020. The number of farmers markets has been increasing after a slight decline during the 2020 season because of the Covid-19 Pandemic.

Massachusetts Farmers' Market Week was held the first week of August in conjunction with National Farmers Market Week. In celebration, MDAR Commissioner John Lebeaux along with federal, state, and local officials, visited farmers markets in Brighton, Cambridge Central Square, Holyoke, Northampton, Truro, Watertown, and Wayland to recognize farmers markets and their contributions to local communities and agriculture throughout the state.


Brighton


Central Square


Holyoke


Northampton


Truro


Watertown


Wayland

Farmers' Market 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 | $2 \%$ | 41 | $13 \%$ |
| 2013 | 249 | $-2 \%$ | 43 | $2.5 \%$ |
| 2014 | 251 | $.50 \%$ | 43 | $5 \%$ |
| 2015 | 256 | $2 \%$ | 47 | $0 \%$ |
| 2016 | 247 | $-4 \%$ | 53 | $9 \%$ |
| 2017 | 240 | $-3 \%$ | 53 | $13 \%$ |
| 2018 | 241 | $.5 \%$ |  | $0 \%$ |


|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 2019 | 227 | $-6 \%$ | 46 | $-13 \%$ |
| 2020 | 195 | $-14 \%$ | 36 | $-22 \%$ |
| 2021 | 212 | $9 \%$ | $41(2021-2022$ winter $)$ | $14 \%$ |
| 2022 | 217 | $2 \%$ | $49(2022-2023$ winter $)$ | $20 \%$ |

## Farmers' Market Resources

MDAR maintains a comprehensive library of farmers market resources on its website for market managers and farmers, including development, regulatory and promotional materials. A list of farmers markets seeking vendors is maintained for growers and local food producers who are looking for markets to participate in. Days, times, and locations for all markets 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.

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

Program


It's $\mathbb{\$ ( P )}$ to be healthy!

MDAR maintains information on how farmers can apply for, and receive, SNAP retailer authorization. Information on subsidized SNAP equipment options is also included on the website. For Federal fiscal year 2021, USDA listed 410 SNAP authorized direct marketing farmers and farmers markets in Massachusetts. This is an increase from 384 retailers the previous year.
MDAR continues to collaborate with the Department of Transitional Assistance (DTA) on the Healthy Incentives Program (HIP). HIP matches the purchase of fruits and vegetables when SNAP recipients shop with participating vendors at farmers markets, farm stands, Community Supported Agriculture Programs (CSA's), and mobile markets. A credit is instantly applied on participants' EBT cards, up to $\$ 40, \$ 60$ or $\$ 80$ month.

HIP rebates earned in 2022 (through November) totaled \$12,196,970.38.
In 2022, MDAR worked with DTA to administer a USDA funded grant that provided mobile SNAP/HIP processing equipment to eligible farms and farmers markets. The program which ended in September 2022 , provided over $\$ 160,000$ in equipment to 110 farms and farmers markets.

MDAR also supported DTA on a Notice Opportunity (NOO) to on-board new vendors for HIP. DAR assisted with the NOO development, the applicant review, and on-boarding and training. As a result of the NOO, over half of towns previously without any HIP access points will be served by at least one new HIP vendor, and $76 \%$ of towns previously identified as having low HIP access for their SNAP client population will be served by the newly selected HIP vendors. Newly selected vendors will serve families
in 25 of 26 Gateway Cities. Collectively, selected vendors will be able to provide HIP access in more than 25 languages.

In total, 123 new vendors were announced, with 64 new vendors fully on boarded by December 2022. On-boarding and training continues through the winter of 2022/2023.

Farmers' Market Nutrition Program

## Rebecca Davidson

In 2022, the USDA FNS awarded Massachusetts with $\$ 554,708$ in federal food dollars to distribute to low-income elders along with $\$ 61,634.00$ to use to administer the program state-wide. In 2022, 25,446 Massachusetts seniors and disabled individuals participated in the program compared with 24,780 in 2019. Participating elders received a benefit of $\$ 25$ per person for the 2022 growing season. $73 \%$ of issued coupons were redeemed at Massachusetts farmers markets and farmstands. This figure is slightly higher than the $70.9 \%$ redemption rate in 2021. In 2022, the program utilized $89.2 \%$ of the USDA 2022 Food Allocation, as compared to $88.7 \%$ of the 2021 Food Allocation. The Senior FMNP home bound delivery program served 4,483 seniors in 2022 throughout the Commonwealth of Massachusetts. 24 Elder Nutrition Programs distributed coupons and produce to seniors and disabled individuals across the state of Massachusetts. MDAR distributed a nutrition education flyer and a regional list of farmers' markets and farmstands.

In 2022, the USDA FNS awarded Massachusetts with $\$ 841,622.00$ in federal food dollars to distribute to participants in the WIC (Women, Infants and Children) program. The 2022 WIC Farmers‘ Market Nutrition Program (FMNP) served 22,522 women, children, and infants over 4 months with coupons to buy fresh produce at farmers markets, which is a decrease from the 33,847 served in $2021.65 \%$ of WIC FMNP coupons were spent at farmers' markets and farmstand vendors. The WIC FMNP redemption figure is up by $32.5 \%$ when compared to last year's $33.2 \%$. MDAR stipulates that the increase is due to the distribution of coupons at farmers' markets across the state, which is an initiative the state hopes to continue in 2023. The program utilized $52.1 \%$ of the USDA FNS 2022 allocated food dollars, which is a slight increase from the $51 \%$ utilization rate of the USDA FNS 2021 allocated food dollars. Participants received a benefit of $\$ 30$ per person for the 2022 growing season.

The program certified 208 farmers‘ markets, 116 farmstands, and 428 growers to serve the recipients of the Senior and WIC Farmers Market Nutrition Programs.

Overall, these funds successfully allowed for the purchase of $\$ 934,327.00$ worth of fresh, local produce, which represents a $14 \%$ increase from 2022. To continue the increase in spending, MDAR will use enhanced outreach strategies and continue to distribute at farmers' markets.

## Farm to School Program

## David Webber

The Massachusetts Farm to School Project, (MFTS) of which MDAR is a primary sponsor through a budgetary earmark of $\$ 120,000$, provides technical assistance to Massachusetts farmers and schools and helps to connect Massachusetts farmers with school districts looking for locally grown foods.

Interest in Farm to School activities is strong in Massachusetts. Of the respondents in the latest UDSA Farm to School Census, $81.2 \%$ of the school food authorities serve local food, $48.5 \%$ have edible gardens and $23.1 \%$ host student field trips to local farms. Farm to School activities in Massachusetts reach over 594,000 students.


In 2020, MDAR partnered with Mass Farm to School to submit a proposal to the USDA Farm to School Grant Program to develop scale appropriate school garden food safety audit tools and provide technical support and training to school garden staff and other school garden partners. Planning began in 2021 and was completed in early 2022. The materials, including the School Garden Food Safety Manual can be found here: www.massfarmtoschool.org/school-garden-food-safety-manual/. MFTS, with support from MDAR and program partners, held an on-line workshop for school food service staff, school garden coordinators and support personnel on March 8, 2022. An additional training is scheduled for Spring, 2023.

In 2022, MDAR joined the Department of Elementary and Secondary Education (DESE) and MFTS in the planning for new grant programs to support Farm to School in Massachusetts, including MA FRESH and the Local Foods for Schools Cooperative Agreement Program (LFS). MA FRESH funds will support schools to have adequate kitchen equipment to prepare food for school meals and snacks including, but not limited to, local, fresh produce, meats, seafood and dairy items; training school kitchen staff in preparing fresh meals using local ingredients and in procuring such ingredients; training educators and other school staff in adding or integrating food system lessons to their curriculum; and infrastructure and programming for curricular and extracurricular activities, such as school gardens, for students to learn about agriculture and the food system. LFS will provide one time funding from USDA to support schools' ability to purchase local unprocessed or lightly processed foods. These programs, administered by DESE, will roll-out beginning in 2023.

## Massachusetts Building

## Fran Pearson

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## The Massachusetts Grown \& Fresher Program

## Rick LeBlanc

## The MassGrown Exchange

This online platform was developed in 2020 in response to the impacts of Covid shutdowns, which caused interruptions of food supply chains, but now continues as a platform to connect businesses with other businesses. It allows Massachusetts businesses to post available crops, value added products, and services to connect with potential buyers in the region. It connects a range of businesses, including farms, fisheries, food buyers, service providers, schools, supermarkets, and food banks. In 2022, 125 new businesses registered, for a total of 495 businesses by year end on the Exchange. There were also 220 products \& services listed, with 16,200 email notifications sent, with 18,168 pageviews to the site.

We continue to brand and offer the "MassGrown \& Fresher" logo to farms, and offer posters, stickers, and price cards, with order form here. The logo identifies and promotes crops and products grown in Massachusetts.

The "MassGrown \& Fresher" homepage: www.Mass.gov/Massgrown continues to be a great source of seasonal information for the public to learn more about local agriculture, and where to find farms and farmers markets in Massachusetts. It includes timely links, updates, and a Culinary and Ag-tivities Calendar.

The featured MassGrown Map continues to be the most visited webpage at MDAR with over 175,000 pageviews in 2022. It maps over 1500 locations of farms, as well as farmers markets and agricultural fairs. The Map is now location specific and mobile-friendly, as it defaults to locations in a 3-mile radius
to the user, with options to expand the search statewide. This past year we enhanced the Search box to make it easier for the user to search by town, zip code, or farm name in the same search box, as well as a new legend and feedback box. We continue to promote it thru social media, eblasts, and at a booth in the Massachusetts Building at the annual Big E.

## 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. Ensuring owners provide proper care for their animals reduces the animals' stress levels. Increased stress can weaken an animal's immune system and has a direct effect on their susceptibility to illness. Considering this, animal welfare becomes 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. The Division regulates certain animal-related agricultural activities, which may include the inspection, examination, and licensing of both food-producing and companion animal businesses. These efforts provide additional oversight where there may be increased risk to animal or human health. The Division has programs that require the licensing and inspection of dairy farms (both raw milk and pasteurized milk producers); commercial cattle, poultry, and swine dealing operations; thoroughbred and standardbred racehorse breeding; horseback riding stables; pet shops; and animal rescue organizations. 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. The Division is also responsible for providing training to municipal animal inspectors and animal control officers, on these and other related matters.

The Division of Animal Health is continuing to adjust to a hybrid work model. Much of the spontaneous collaborations on issues and problem solving has been lost. Attempting to replace those organic conversations with scheduled meetings has resulted in varied levels of success. Coupling that with a planned move to a new office space in the upcoming months has increased anxiety levels among staff. We are working on ensuring lines of communication remain open, and that those that need assistance are encouraged to ask. Efforts to digitize what has largely been a paper-based operation continue.

The Division of Animal Health is comprised of 21 full-time employees, including two veterinarians, program coordinators, inspectors, and administrative support staff. Staff deal with issues related to all domestic animals, from cats to cattle. The Division of Animal Health works with officers from the MSPCA, Animal Rescue League of Boston, and local police departments to address matters involving animal cruelty, as those are criminal offenses that require attention from law enforcement. Additionally, the Division receives some funding through cooperative agreements with the United States Department of Agriculture to address animal health issues that are important locally, nationally, and even internationally (see chart below). Disease surveillance and response efforts, including Avian Influenza, African Swine Fever, and other foreign animal diseases have the potential to be catastrophic to Massachusetts agriculture but also could impact interstate and international trade. Cooperating with the USDA to mitigate the risk of these diseases and sharing responsibility for response should they be detected here ensures the least impact to animal owners and their businesses.

For 2022:

| Cooperative Agreement | 2022 FUNDING |
| :--- | :---: |
| Animal Disease Traceability | $\$ 55,461.99$ |
| Active and Passive Surveillance for the avian program (formerly <br> Notifiable Avian Influenza) and Annual Livestock Inventory (Barn Book) <br> Data Entry | $\$ 62,879.54$ |


| Foreign Animal Disease Prevention (including Scrapie Prevention <br> Program) | $\$ 19,572.96$ |
| :--- | :---: |
| Swine Garbage Feeding Surveillance | $\$ 27,454.37$ |
| All Non-Avian Foreign Animal Disease <br> (including Small Ruminant, Bovine, Swine, One Health) | $\$ 17,825.15$ |

## 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

## 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 800 swine tags and 3225 bovine tags to producers and veterinarians in 2022. In addition, 200 Scrapie prevention program tags for sheep and goats were distributed and 14 flocks were referred to USDA APHIS for flock identification numbers and tags. Education and outreach efforts focused on biosecurity and transitioning to the use of electronic (RFID) livestock tags. An additional 112 premises identification numbers (PINs) were created for Massachusetts livestock owners and producers 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 and distributed 4 RFID readers/ wands to veterinarians. MDAR began the implementation of a state-owned instance of CoreOne software in 2022, which will I both improve animal disease traceability efficiency and facilitate the integrated electronic management of animal health records and licenses across the division. ADT Information was included in the veterinary accreditation materials for 47 Massachusetts veterinarians and for 166 municipal animal inspectors who attended the fall 2022 in-person and live-streamed training sessions.
In addition, livestock and poultry dealers and transporters are licensed and their equipment and facilities
are inspected. In 2022 there were 26 licensed livestock dealers and 8 licensed equine dealers in Massachusetts.

## Dairy Program

## Claire Lavina

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 federal and state laws and regulations. The Program monitors milk production, hauling, distribution, 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 2021 there were 110 bovine dairy farms and 7 caprine and 1 ovine dairy farm certified as dairies. At the end of 2022 there were 103 bovine dairy farms and 8 caprine dairy farms.

## 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.

| ENFORCEMENT ACTION | 2022 |
| :--- | :---: |
| 10-day Letter of Warning | 4 |
| 2 out of 4 Letters of Warning | 11 |
| 3 out of 5 Shut-Off Orders | 5 |
| Cease and Desist (Immediate Shut-Off) | 22 |
| Antibiotic Residue Shut-Offs | 1 |

## Equine Licensing Programs

## Michael Gold

The Division of Animal Health administers a number of licensing programs involving horses and other equine species. Licenses are issued to horseback riding instructors, the riding schools/stables where they operate, and equine dealers and transporters engaged in significant levels of activity. Riding stable licenses are issued to any business where horse-drawn hayrides, 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 2022, the Program administered 128 exams. Of those taking the exam, 121 passed all sections, 5 failed the exam and 2 others passed all but the legal section covering the Department's regulations at 330 CMR 16.02 and 16.03. Applications received in 2022 matched those submitted in 2021 at 153 total. This indicates the that the total number of applicants per year has stabilized.

In 2022, there were a total of 2,196 licensed riding instructors. This represents a small increase over 2021 licensees of 2,192. In 2018 we had a high of 2,348 instructors up from 2,312 in 2017 and have since declined slightly by about 2 percent annually, this hopefully represents a stabilizing of trends which began before Covid. The Department licensed 445 Riding Stables in 2021, down slightly from the 459 in 2021. Of these, 31 were newly licensed stables or those coming back from closed operations. A few licensed operations had decided to combine with other licensed operations resulting in fewer licenses issued, a trend the Department noticed during Covid. But with the increase in newly licensed operations this year we may be witnessing a reversal. We continue to monitor these numbers. All figures for stables and instructors are based on the licensing period running from April $1^{\text {st }}$ to March $31^{\text {st }}$ each year.

In 2022, there were 5 licensed Equine Dealer / Transporters in the state.

## Enforcement Actions

In 2022, the Division followed up on 16 reports of non-compliant operations. 9 operations were contacted and achieved compliance after receiving the required licenses. 2 applicants were denied a license due to inadequate conditions at the facility. 2 other operations were issued orders to cease and desist operating without a license, one of which was then fined for continuing to operate in non-compliance with the regulations. 2 investigations remain open, and one complaint was determined to be unfounded.

## 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 its inception in 2012, the Fund has acquired $\$ 3,935,807$ 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 $85 \%$ of this revenue through voluntary donations on Line 33f of the Massachusetts Income Tax Return and online giving. In 2022, the Fund received \$396,479 in donations and $\$ 75,000$ in grant funding. Additional funding was provided through a Commonwealth of Massachusetts Budget Line Item of $\$ 100,000$.

The Mass Animal Fund Spay/Neuter/Vaccination Voucher Program sent its first voucher in July 2014; since then, the program has disseminated 24,791 vouchers and has provided no-cost assistance to 18,053 animals through one of 63 veterinary providers/municipal partners across the state. The Fund's veterinary network completed 1,990 voucher surgeries in 2022. The largest population served was dogs and cats from low-income households ( $76 \%$ ), followed by animals in municipal care ( $19 \%$ ) and feral cats ( $5 \%$ ). The most surgeries completed were on female cats ( $30 \%$ ), followed by male cats ( $27 \%$ ), female dogs $(22 \%)$, and male dogs ( $21 \%$ ). The average cost of surgery is currently $\$ 184$ for standard surgeries and $\$ 230$ for emergency surgeries. In 2022, the Fund also provided 564 dogs free vaccines to address disease outbreak situations. In 2022, the Fund distributed spay/neuter/vaccination assistance to local animals in need totaling $\$ 400,015$ of which $\$ 101,044$ was spent on animals in emergency situations.

The Fund rolled out the Animal Control Officer Core Competencies Training Program in the March of 2016. Since the training program inception, 736 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 300 courses for continuing education credit. ACOs in Massachusetts completed 3,728 hours of continuing education in 2022.

## Municipal Animal Inspector Program

## Ashley Kraft

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 2022 there were 458 municipal animal inspectors appointed to fulfill the above duties for cities and towns across the Commonwealth.

## Pet Shop Program

## Elsie Colon

The Division of Animal Health has the statutory responsibility to license any entity engaging in the business of selling mammals, birds, or reptiles that are not the offspring of their personally owned
animals. In 2022, the number of licensed pet shops dropped by 2 , to a total of 130 . The Division conducts inspections of pet shops for initial licensure and for annual license renewals, as well as in the process of investigating any complaints received. Each establishment must meet strict facility requirements designed to promote sanitary conditions and improve animal health. These efforts protect the health of the animals, as well as that of the visiting public and the employees who work in the shop. In 2022, 2 entities were found operating without the required license. Both were issued an Order to Cease and Desist and were required discontinue operation unless they came into compliance with the regulations. There were 51 entities that received 10 -day compliance letters in 2022, due to failures of their facility to meet compliance with the regulations. These violations are frequently related to matters like chipped paint, cracked tiles, or rusted metal, making it impossible to fully clean and disinfect and thus a risk of harboring harmful pathogens. These 10-day "warning" letters grant the licensee 10 days to correct the violation before fines may be issued. Fines were issued on 16 different occasions in 2022, either for a failure to fix a violation noted on a 10-day letter, or for violations of animal care standards such as a failure to provide fresh food and water or failing to maintain a sanitary environment.

## 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 for-profit poultry production here in Massachusetts. The Division of Animal Health strives to educate our residents so that we can reduce the potential for conflicts between abutting neighbors, regulatory officials, and poultry enthusiasts. The Division of Animal Health supports the keeping of poultry when it is done responsibly. Responsible poultry ownership benefits the birds, the owners, and the communities in which those flocks are located.

Massachusetts law requires live poultry and hatching eggs moving into and within the Commonwealth to originate from flocks tested for and confirmed free of Salmonella pullorum. Avian Influenza screening of a percentage of these tested flocks is part of the program. Annual testing for participating flocks is performed by the Division of Animal Health staff. Additional testing may be available for some producers. Inspections, advice, testing, and possible necropsy services are some of the tool's staff uses to assist farmers to mitigate problems that may develop.

In 2022, Animal health staff collected 5,920 serology samples for Salmonella pullorum. The serology samples were collected from 206 poultry flocks. Screening tests for salmonella pullorum identified 8 flocks with a total of 11 non-negative birds. Several of the flock owners opted to submit their nonnegative birds for necropsy. Eight of the 11 birds were submitted for necropsy. Five of the birds were negative for salmonella. Test results on 3 of the birds submitted in late December are pending. Follow up testing on the other non-negative birds was negative.

In addition to AI screening of Salmonella pullorum samples, the department also provides AI screening for participants in the National Poultry Improvement Plan (NPIP) AI Clean programs. NPIP requirements dictate the frequency of testing for these participants. The total number of serology samples screened for AI in 2022 was 2,283. Cooperative agreements with the United States Department of Agriculture (USDA) support these efforts.

Early in 2022, Highly Pathogenic Avian Influenza (HPAI) was detected in New England in wild and domestic birds. Education and outreach efforts were increased to prevent the spread of HPAI to the commercial poultry industry and backyard flock owners. The department used social media and email notifications to stress the importance of increased biosecurity for poultry flock owners. An online reporting form was also developed to facilitate sick bird reports from hobbyists, producers, veterinarians, and members of the public.

Highly Pathogenic Avian Influenza (HPAI) was detected in a non- poultry backyard flock in Berkshire County in March of 2022. As part of efforts to minimize potential spread of the virus, MDAR issued an order in April cancelling all fairs, shows and poultry gatherings. The order was allowed to expire on July 1. Two more cases of HPAI were identified later in the year in Bristol and Middlesex counties. All three flocks exhibited high mortality rates and were humanely depopulated to prevent further suffering of the remaining sick birds.

Increased public awareness of HPAI in poultry generated 212 calls/online submissions from flock owners reporting sick poultry in their flocks. Reports were screened and calls to poultry owners were made to further investigate perceived HPAI risk. In response to sick bird calls from flock owners with sick or deceased poultry 41 deceased birds were submitted for HPAI testing. HPAI samples were also collected and submitted from 172 live birds. Only three (non-poultry classification) backyard flocks were found infected with HPAI.

Mycoplasma Gallisepticum, Marek's disease, Coccidiosis, flock management and predation were among the other issues found to be causing morbidity and mortality in the reported flocks. Animal Health staff worked with owners to correct these problems through education, ensuring an increased awareness of animal health and welfare.

The NPIP Program has maintained steady participation. In 2022 there were a total of 33 active participants in the NPIP program. Twenty-one of the participants are using the electronic 9-3 forms when selling their poultry and hatching eggs. This feature has benefited the department by eliminating the use of paper forms.

The NPIP 9-3 database is searchable, and import/export reports are easily generated. For instance, there were a total of 220,097 hatching eggs/live poultry imported into MA in 2022. This number does not include the poultry imported on paper forms.

In 2022, Massachusetts producer's using electronic 9-3 forms produced 46,908 poultry and 48,018 hatching eggs for export. During 2022 MA producers hatched 15,656 poultry and 480 hatching eggs that were sold within the Commonwealth.

## Rabies Program

## Ashley Kraft

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 2021 there were 2375 reported bite incidents involving domestic animals and humans. That number increased to 2615, in 2022. In 2022, 939 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. Some of the wildlife involved in those exposure cases were submitted for rabies testing at the Massachusetts Department of Public Health's Rabies Laboratory. A total of 91 animals tested positive in 2022.

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/. There was a significant drop-off in participation due to the Covid pandemic, but the numbers have begun to bounce back. In 2021, there were only 12 rabies vaccination clinics promoted through this service. In 2022, that number increased to 26 .

## Reportable Disease Program

## Elsie Colon

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 186 suspected or confirmed cases of reportable diseases in 2022, including the following:

| 2023 CASES | DISEASE | ANIMAL(S) IMPACTED |
| :---: | :--- | :--- |
| 98 | Parvovirus | $\operatorname{dog}$ |
| 38 | Leptospirosis | $\operatorname{dog}$ |
| 38 | Panleukopenia | cat |
| 6 | Canine Distemper | dog |
| 9 | Strep equi (Strangles) | horse |
| 16 | Feline Calicivirus | cat |
| 1 | Eastern Herpes Virus-1 | horse |
| 2 | Brucellosis | dog, goat |
| 1 | Erysipelas | swine |
| 1 | Babesia | dog |
| 6 | Canine Distemper | dog |
| 4 | Equine Coronavirus | Horse |
| 1 | Tularemia | cat |
|  |  |  |

## Shelter and Rescue Program

## Patricia Cabral

The Division of Animal Health‘s Animal Shelter and Rescue Program ensures the health and safety of companion animals being offered for adoption to the public. The Division of Animal Health licenses individual animal shelters and rescue groups who operate within Massachusetts and those that import and adopt animals into Massachusetts from other states. The Division responds to reports of infectious or contagious disease found in imported animals, or disease outbreaks occurring at local shelters. The Department also fields complaints from adopters who receive animals with concerning physical or mental health issues.

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. In March of 2020, the Division of Animal Health promulgated 330 CMR 30.00, the regulations for operating animal shelters and rescues in Massachusetts. These regulations replaced the outdated Animal Health Order issued in 2005. The new rules added several requirements for shelters and rescues, including vaccination and testing for certain diseases; behavioral observations and disclosure of any concerning behaviors noted; a requirement that all animals must be examined by a veterinarian prior to adopting them out; required spay and neuter surgeries for healthy animals; and maintenance of records for all the animals handled. The rules 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 humans who seek to help them through adoption. For more information, see https://www.mass.gov/animal-shelter-and-rescue-program

The Department witnessed a huge spike in pet adoptions during the pandemic. During lockdown, many families felt it was an ideal time to bring a pet into their home. The increase in demand for pets was met by start-up rescue groups translocating animals across the country. While the demand for pets slowed in 2022 rescues are seeing an in surrendered pets requiring homes. A significant shift was noted over 2020 and 2021 in the primary sources of animals. In years past, most imports were coming from shelters along the east coast from Tennessee to the Carolinas. Through the pandemic, more animals were originating from Texas. Many of the groups from Texas seem to be unaware of the regulatory requirements in place here in Massachusetts. This trend has continued into 2022.

## Enforcement Actions

In 2022, the number of registered shelters and rescues operating in Massachusetts increased by 7 to 455 . The Division issued 4 Orders to Cease and Desist to unlicensed organizations in 2022.5 organizations were issued fines. 3 of the fines were issued to registered organizations that failed to comply with the regulations, and the other 2 organizations were fined for violating the order to cease and desist for operating without a license.

## Swine Program

## Elsie Colon

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 2022, 11 permits to feed garbage were issued to swine operations in the Commonwealth.

## Division of Crop and Pest Services 2022

## Taryn Lascola

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. Hemp Program: oversees the inspection and licensing of individual growing and processing hemp.
5. Invasive Pest Program: oversees the introduction and response to invasive pests into the Commonwealth.

## Farm Products and Plant Industries

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. FFPI 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

Specialty fertilizers (Non-Agricultural Use) are required to be registered while companies that product Agricultural Use fertilizer are required to be licensed. Inspectors conduct marketplace inspections where they ensure that products are registered. Samples of product are also collected to ensure that the NPK values of the product are as stated on the label.

In 2022, 6,428 specialty fertilizers were registered, and 447 manufacturers were licensed. 310 fertilizer samples were collected and of those 26 fines were issued because of incorrect NPK values.

## Feed Program

Pet food and feed are required to be registered and companies are required to be licensed. Inspectors conduct marketplace inspections to ensure that products are registered. Samples of pet food and feed are collected to ensure that the products are safe.

In 2022, 526 companies were licensed, and 17,517 products were registered. 229 products were sampled. 304 products were found to be unregistered and because of that 44 letters of warning were issued.

## Nursery Inspections

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.

In 2022, there were 143 Growers licenses and 1014 Agent licenses issued. 174 nursery inspections were conducted. During the nursery inspections the common issues found were:

- Anthracnose
- Black Spot
- Black Vine Weevil
- Cedar Apple Rust
- Daylily Rust
- Gypsy Moth
- Lily Leaf Beetle
- Willow Leaf Beetle
- Powdery Mildew
- Scorch
- 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

32 stop sales were issued due to Agents/Growers selling plants that are on prohibited plants. Stop Sales issued relative to the following prohibited plant list.

- Creeping Jenny (Lysimachia nummularia) - the majority of stop sales were for creeping jenny at big box stores at the beginning of the growing season.
- Norway Maples (Acer platanoides)
- Gooseberries, Black Currants, Red Currants (Ribes sp.)
- Oriental Bittersweet (Celastrus orbiculatus)


## Prohibited Plant List

MDAR added the following species to the Massachusetts Prohibited Plant List:

- Cytisus scoparius (L.) Link (Scotch broom)- Designated as Likely Invasive
- Eragrostis curvula (Schrad.) Nees (Weeping Lovegrass)- Designated as Invasive
- Pinus thunbergii Parl. (Japanese Black Pine)- Designated as Likely Invasive

Agents/Growers can no longer receive new stock or begin growing new stock but may sell any existing stock during the phase out period listed below:

- Cytisus scoparius (L.) Link (Scotch broom)- 2 years, No longer for sale after December 31, 2024
- Eragrostis curvula (Schrad.) Nees (Weeping Lovegrass)- 1 year, No longer for sale after December 31, 2023
- Pinus thunbergii Parl. (Japanese Black Pine)- 3 years, No longer for sale after December 31, 2025


## Federal and State Phytosanitary Inspections

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 2022, MDAR issued 634 federal phytosanitary certificates. Over a third of all federal phytosanitary certificates issued by MDAR inspectors during the 2022 season were for orders going to Canada ( 227 out of 634). The remaining federal phytosanitary certificates were issued for shipments going to: Australia, Austria, Barbados, Belgium, Bermuda, Cayman Islands, China, Czech Republic, Dominican Republic, El Salvador, Estonia, Finland, France, Germany, Greece, Grenada, Guatemala, Hungary, Ireland, Israel, Italy, Japan, Kazakhstan, Latvia, Lithuania, Malawi, Mexico, Monaco, Netherlands, New Zealand, Poland, Romania, Russian Federation, Saint Lucia, Slovakia, South Africa, Spain, Sweden, Taiwan, The Republic of Korea, The Republic of Turkey, United Arab Emirates, and the United Kingdom.

1371 State phytosanitary certificates were issued for shipments going to: Alaska, Arizona, California, Colorado, Florida, New Jersey, North Carolina, Oregon, Puerto Rico, Texas, Utah, and Washington

## Trace Forward and Trace Back

In 2022, Inspectors followed up on a large trace forward for plants that came from a Washington nursery where Phytophthora ramorum (Sudden Oak Death) had been detected. These plants were purchased by individuals throughout the state of Massachusetts through several online retailers. In total, 37 sites were visited, and 63 samples were collected. All samples came back negative for $P$. ramorum.

Inspectors assisted the MDAR Spotted Lanternfly (SLF) Survey Team with SLF work throughout the state. 83 total site visits were conducted for Spotted Lanternfly Sites by the three state nursery inspectors. This includes visiting and surveying known infestations, as well as following up on possible SLF finds throughout the state.

## Invasive Plant Site Visit

14 Giant Hogweed (Heracleum mantegazzianum) site visits were conducted throughout the year. Management of cutting and pulling plants was also conducted at several sites. Several GHW reports were received by the Department throughout the summer. No new GHW sites were found in 2022. The majority of the known GHW sites in the state are being controlled and slowly eradicated.

17 Mile-a-minute vine (Polygonum perfoliatum) site visits took place throughout the year by nursery inspectors. These site visits included hand pulling of MAM plants and looking for signs of weevil biocontrol damage.

6 Kudzu Vine (Pueraria montana) site visits were conducted.

## Country of Origin Labelling ("COOL") Inspections

Since 2006, MDAR has been working under a Cooperative agreement with the USDA to perform audits relative to COOL requirements. COOL 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. MDAR had two staff members that work on the COOL program. USDA assigned and MDAR completed 64 inspections/reviews.

## Invasive Pest Program

## Spotted Lantern Fly ("SLF")

During 2022, MDAR staff applied for and received funds to conduct SLF survey through USDA PPA 7721. SLF staff surveyed 593 individual stands of trees across the state for Spotted Lanternfly. Positive sites were found in Hampden Co.

During this time, MDAR staff responded to reports of SLF and found established populations in Springfield and Worcester. The Fitchburg population was not eradicated in 2021 and spread. In response to the finds, MDAR did the following:

- Performed a $1 / 4$ mile radius survey as well as grid surveys around positive sites found in Worcester Co.
- Oversaw the removal and destruction of SLF infested trees from 2 known infestations in Worcester Co.
- Responded to reports from the nursery industry of SLF egg masses being imported. Oversaw quarantine and destruction of infested materials.
- Deployed 112 traps across the Commonwealth as early detection for Spotted Lanternfly. All the originally deployed traps were negative.
- Responded to public reports of SLF throughout the Commonwealth. Several reports led to the discovery of new SLF populations. These new infested areas were delimited.
- Oversaw mitigating pesticide sprays at 2 of the known SLF infestations.
- Worked to manually destroy as many SLF egg masses as possible within known infestations.


## Education and Outreach

MDAR provides educational outreach about invasive insect pests through the Forest Pest Outreach Program, run by the Forest Pest Outreach Coordinator and the Environmental Biologist. Staff participated in 17 presentations and 16 tabling events in 2022, and distributed materials to an additional 68 events/programs, with the majority of outreach focused on spotted lanternfly (SLF). Highlights included continuation of our successful quarterly series of free online webinars about SLF, hosted by MDAR and offering free pesticide license and other educational credits to encourage participation. Well over 50,000 people were reached through our 2022 program efforts, with thousands more viewing our display at the MDAR booth at the Big E.
The program also responded to more than 550 pest reports that came in through the reporting website or via phone or email, including suspected sightings of SLF, emerald ash borer (EAB), Asian long horned beetle (ALB), Northern giant hornet, and jumping worms. While the majority of these reports were negative, they did lead to the discovery of an additional infestation of SLF in the City of Springfield as well as confirmation of EAB in 10 new municipalities in 7 different counties.

The program distributed more than 31,000 pieces of pest outreach materials in 2022, for SLF, EAB, and ALB, and reworked our popular SLF stickers into a new holographic design. Staff also developed several print outreach materials related to SLF, including a management guide for homeowners in SLF-infested areas, and made these available to print on demand via our pest website (https://massnrc.org/pests/slf/).

Staff continued to push outreach through social media (@MassPests on Twitter) and blog posts (https://massnrc.org/pests/blog/) and by amplifying this message through the MDAR Facebook account. We posted 22 different invasive species articles on our blog and deployed two press releases related to new finds of spotted lanternfly. The program's monthly pest newsletter also continued to grow its readership, and currently reaches almost 3000 subscribers (https://massnrc.org/pests/signup.aspx).

## Apiary Program

## Honey Beekeeping in the Commonwealth

It is estimated that approximately $6-6,500$ resident and migratory honey beekeepers currently maintain over 40-45,000 colonies in Massachusetts throughout the year. These numbers vary annually due to winter mortality rates, fluctuations in the numbers of hobby beekeepers given the continued increased interest and challenges of honey beekeeping and pollination contracts. While the largest volume of colonies belongs to commercial beekeepers, the Commonwealth is mainly comprised of hobby and sideliner beekeepers who maintain less than 100 colonies. A total of 203 apiaries were voluntarily registered with Massachusetts Department of Agricultural Resources (MDAR) Apiary Program in 2022 bringing the grand total presently to 1,132 registered apiaries.

## Apiary Inspection

Honey bee health inspections are conducted by the Apiary Program Team as visits by Apiary Inspectors
to apiaries containing honey bees or used equipment located in the Commonwealth. Inspections are performed for regulatory purposes at the discretion of the inspectors, as certification for interstate movement, for mosquito control monitoring, during emergencies and routinely upon beekeeper request. Live, declining, and expired honey bee colonies, packages, nucleus colonies (nucs) and used equipment are visually inspected for the presence of pests, parasites, pathogens, pesticides, and invasive species. The goal of such inspections is to detect, mitigate, manage, and ultimately suppress the occurrence and spread of these agents contagious and infectious disease. Inspectors routinely take samples during these inspections and analysis is performed by certified diagnostic labs.

In 2022, a total of 528 inspection requests were received and of these 371 were completed leaving 157 unfilled inspection requests. The unfilled inspection requests consisted of 93 that were not able to be inspected because of the inspection team availability, 29 were canceled by the beekeeper, and 35 did not respond to their request to schedule an inspection with an inspector. An additional 60 inspections were performed for regulatory purposes and not associated with an inspection request. The team of four inspectors visited 14 counties, 246 cities/towns, 408 apiaries and inspected 4,512 honey bee colonies. Of these, 142 inspections were for Dead-out and used equipment. The main cause of death for the Dead-outs was determined to be related to AFB, Varroa Mites and associated viruses, or Nosema spp. This information was shared with beekeepers as an educational tool. Inspectors also conducted import inspections of 21 shipments of package bees ( 14 suppliers, 8,230 imported packages total), 18 shipments of nucs ( 14 suppliers, 1,601 inspected from 4,154 imported nucs total) and 1,236 colonies used for cranberry pollination ( 5 commercial beekeepers, 16 bogs) to ensure regulatory compliance. A total of 354 samples were taken during inspections and sent to labs for analysis. Findings from visual inspections, sampling and lab analysis are as follows:

| Type | Honey Bee Health Issue | Total Colonies Detected |
| :---: | :---: | :---: |
| Bacteria | American Foulbrood (AFB) | 7 (apiaries) |
|  | European Foulbrood (EFB) | 351 |
| Fungi | Chalkbrood | 50 |
|  | Nosema spp | 109 |
|  | Parasitic Mite Syndrome (PMS)/Idiopathic Brood |  |
|  | Disease Syndrome (IBDS)/Snot Brood/Varroosis | 41 |
|  | Sacbrood Virus (SBV) | 435 |
|  | Deformed Wing Virus (DWV) | 355 |
|  | Black Queen Cell Virus (BQCV) | 174 |
|  | Chronic Bee Paralysis Virus (CBPV) | 9 |
| Management | Small Hive Beetle (SHB) | 9 |
| Pesticides | Wax Moth | 14 |
|  | Mice | 8 |
|  | Bear Damage | 2 |
|  | Africanized Honey Bees (AHB) | 0 |
|  | Queen issues | 30 |

The Apiary Program Team had limited availability to conduct routine health inspections this year due to a surge in AFB cases which resulted in the reallocation of time and resources to these investigations.

Inspections will resume for these cases as needed for follow up in 2023. A total of 4 reports were received of aggressive colony behavior potentially due to the presence of Africanized Honey Bees (AHB). After investigation, only a single sample was submitted for lab analysis and found to be negative for AHB. The Apiary Program Team also received 20 Bee Kill complaints and investigated 5 cases collaboratively with the MDAR Pesticide Enforcement Team. A total of 2 of these cases were confirmed to have pesticides in samples and at the level detected, these chemicals were found to be the cause of the observed bee death.

## Education

The MDAR Apiary Program Team continued to provide outreach educational programming and extension to stakeholders virtually and in person in 2022. The Apiary Program team created, led, and coordinated a total of 64 educational outreach programs ( 33 virtual, 33 in-person, some were offered in both format at same time) consisting of 202.5 instructional hours that reached 5,525 attendees from all over the United States. One series of unique virtual events focused for beekeepers in the Northeast, the New England (+New York) Honey Bee Update Lunch and Learn (created in 2020 as a response to COVID-19) was offered again this year. This series is particularly popular since it offers a regional update on honey bee health and a facilitated discussion with beekeepers between the collaborative of apiary inspectors from New England and New York states. The Apiary Program was also invited by EPA to offer a webinar on Varroa Mite IPM which was well received (728 attendees).

New this year, the Apiary Program was finally able to fulfill its commitment to veterinary education (arranged in 2020 and postponed due to COVID-19) through a collaboration with the Cummings School of Veterinary Medicine at Tufts University. A total of 5 senior students worked alongside and learned from the Apiary Program Inspection Team for a week to gain exposure to the field of apiculture, bee disease, and hands-on techniques related to inspecting honey bee colonies. Finally, the Apiary Program (e)Mailing List created in 2018 in response to the need for communication with the growing beekeeper population added 162 members in 2022 and now has a total of 962 members. This list along with the registry and inspection database allows for a comprehensive emailing list to communicate with stakeholders.

## Massachusetts Honey Bee Health Survey

The 2021-2022 Massachusetts Bee Aware Honey Bee Health Survey had 706 beekeeper responses managing 4,247 hives with a reported $28 \%$ overall total loss and $36 \%$ average loss of honey bee colonies in the Commonwealth. Since 2015/2016, this health survey has had a total of 3,162 beekeeper responses allowing for an important tool to gather local data on honey bee health as well as gaining vital feedback regarding beekeeper needs and programmatic focus. Results of the survey indicate that beekeepers attributed the top causes of colony losses this year to Varroa mites ( $22 \%$ ), queen loss/failure ( $20 \%$ ), starvation ( $17 \%$ ) and environmental factors/climate change ( $17 \%$ ). Beekeepers also reported that the single greatest problem affecting beekeepers in the Commonwealth was Varroa mites (84\%), pesticides $(47 \%)$, beekeeper mismanagement (39\%) and environmental factors/climate change (34\%).

## State Apiaries

The MDAR Apiary Program Inspection Team also managed the State Apiary locations in Amherst and Danvers, MA which are comprised of 4-20 active honey bee colonies that serve as outdoor classrooms for hands-on demonstrations and education. A total of 12 in-person educational programs with 375 attendees
were held at the State Apiaries. Honey harvested from these colonies consisted of a total of 222lbs of which all was donated to The Greater Boston Food Bank.

## Research and Monitoring

The MDAR Apiary Program Team also participated in the USDA-APHIS National Honey Bee Survey which involved visiting 9 counties, 18 towns, 19 beekeepers, and 24 apiaries consisting of 985 colonies of which 190 were sampled for a total of 58 submitted samples. The program team also collected 17 European Foulbrood (EFB) swab samples for researchers at the University of Saskatchewan as part of their evaluation of this bacterial disease in commercial beekeepers who provide pollination services.

## Pesticide Program

The Massachusetts Department 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.

## Enforcement

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.

Overall, a total of 306 pesticide inspections of which 60 were investigations relative to pesticide complaints. These inspections covered a wide range of pesticide use in the Commonwealth were completed.

Please note, numbers reported are for the 2022 federal fiscal year and do not include the pending enforcement actions on open investigations during that time.

## Pesticide Applicator and Licensing Program

Federal Fiscal Year 2022 saw approximately 2,672 individuals signed-up for and complete the Department's online pesticide examinations. This total includes Pesticide (core) Applicator, Pesticide Dealer, and both Commercial and Private Certification exams. Out of these 2,672 exams taken, some 1,738 received a passing score and were offered the opportunity to apply for a license or certification to be issued by the Department.

In FY 2022 there were approximately 640 programs approved or reapproved for Massachusetts Pesticide Applicator Continuing Education (PACE) Credit Hours by the Department PACE Coordinator, Trevor Battle. The types of programs approved for PACE credit hours includes:

- Approximately 180 livestreaming interactive / virtual classroom online trainings-approved and/or reapproved
- Approximately 300 "on-demand" or continuously available online trainings-approved and/or reapproved
- Approximately 160 traditional in-person workshop / classroom trainings—approved and/or reapproved


## Pesticide Product Registration

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.

Each year MDAR registers approximately 7000-8000 products. Of significance in 2022, on July 1, 2022, all products containing neonicotinoids that are labeled for lawn/turf, tree/shrub, vegetable gardens are state restricted use. This is a result from the 2021 Pesticide Board Subcommittee conducting an individual review of neonicotinoids and their decision to restrict neonicotinoids.

## Industrial Hemp Program

The MDAR Hemp Program provides oversight and regulation of legally grown hemp for commercial purposes under M.G.L.c. 128 Section 116-123 in Massachusetts. The Hemp Program oversees all licensing for hemp cultivators and processors, and enforcement of laws and regulations pertaining to Industrial Hemp in the Commonwealth.

A total of 95 licenses were issued, of the 51 Grower/Dual Licenses issued, 15 Licensees did not grow a crop on 2022.

| License Type | \# Licenses |
| :---: | :---: |
| Dual | 44 |
| Grower | $\mathbf{7}$ |
| Processor | 44 |
| Grand Total | $\mathbf{9 5}$ |

The overall certification rate for hemp crop so far is $96.6 \%$, with four (4) of the six (6) failed crops pending retests.

A total of 163.4 acres were licensed for hemp cultivation outdoors, and $71,568 \mathrm{ft}^{2}$ were licensed for indoor or greenhouse cultivation in 13 Massachusetts counties.

| County | Outdoor Acres | Indoor Ft |
| :---: | :---: | :---: |
|  | ² |  |
| Barnstable | 0.2 | 0 |
| Berkshire | 12 | 2,950 |
| Bristol | 8.25 | 0 |
| Essex | 0.02 | 1,750 |
| Franklin | 2.01 | 0 |
| Hampden | 26.15 | 37,000 |
| Hampshire | 14.5 | 5,016 |
| Middlesex | 0 | 640 |
| Nantucket | 0.11 | 1,000 |
| Norfolk | 4.82 | 5,850 |
| Plymouth | 19 | 900 |
| Suffolk | 0 | 0 |
| Worcester | 76.4 | 12,462 |
| Grand Total | $\mathbf{1 6 3 . 4 6}$ | $\mathbf{6 7 , 5 6 8}$ |

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 183 individual hemp crops were tested in 2022 in MA, from 31 different licensed growers. Of those 183 crops, 176 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 7 crops that tested above $0.3 \%$ THC on their first test, 2 were destroyed voluntarily by growers and 5 were re-tested. Additional testing is ongoing, however to date, 1 additional crop was certified after a second round of testing.

On August 5, 2022, 330 CMR 32.00: Hemp Production went to Regulation. 330 CMR 32.00 establishes the requirements for the production and research of Hemp within the Commonwealth of Massachusetts. 330 CMR 32.00 is intended to ensure consistency and compliance with Pub. L. No. 115-334, as amended, and 7 CFR Part 990, as amended, and to allow the Commonwealth, through the Department, to exercise primary regulatory authority over the production of Hemp in the Commonwealth in accordance with federal law.

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

## Gerard Kennedy, Division Director

## Agricultural Business Training Program (ABTP)

## Melissa Adams

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 learn business skills to improve their success.

In FY2022: MDAR offered a 6 -session Exploring the Small Farm Dream course in Winter of 2022 online to 12 participants representing 11 potential farm enterprises. The session was adapted to a virtual format due to the COVID pandemic.

MDAR did not offer the Growing Your Farm Business course in Winter 2021 due to inperson meeting constraints related to the COVID pandemic.

MDAR offered a 3-session in-person Succession School course in Winter of 2022 in collaboration with Land for Good in Greenfield, MA to 12 participants representing 7 farms. The Succession School course offers comprehensive guidance and resources to senior operators both with and without identified successors to plan the next steps of their farm transfers.

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

## Laura Maul

The Agricultural Climate Resiliency \& Efficiencies (ACRE) Program 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 Fiscal Year 2022, 20 projects were awarded funding totaling $\$ 500,000$. Examples of funded projects include reduced tillage or no-tillage equipment, small-scale no-till equipment, irrigation controls, compost spreader, and dairy barn modifications.

## Agricultural Food Safety Program (AFSIP)

## Laura Maul

The Agricultural Food Safety Improvement Program (AFSIP) is a program which was created to help produce and aquaculture operations address farm food safety risks and work towards compliance with food safety regulations and third-party audits. Since 2014, the program has awarded 210 projects and over $\$ 2.6$ 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 produce projects include wildlife exclusion fencing, packing shed upgrades, produce washing equipment, field harvest systems, hand washing sinks, and drainage systems. Examples of aquaculture projects include ice machines, oyster sorters, refrigerated vehicles, and cold storage. For FY2022, the program awarded a total of 29 projects, 19 to produce operations and 10 to aquaculture operations, with a combined total of $\$ 750,000$ 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 over 650 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 2022, 11 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, and Department of Environmental Protection (DEP) priority water bodies.

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, irrigation, automated irrigation systems, and water control structures.

## Matching Enterprise Grants for Agriculture (MEGA)

## Jessica Camp

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 6 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 which helps identify the best use of the grant funds, which must be spent on equipment or capital improvements that will enhance farm viability.

In FY2022, $\$ 63,788$ in total grants of up to $\$ 10,000$ per farm and a total of $\$ 27,600$ (an average of $\$ 3,943$ per farm) were provided to 7 participating MEGA farms. Farmers contributed an additional $\$ 99,966$ towards these farm improvement projects. Grant projects include: farm equipment, walk-in cooler, farm equipment, greenhouse, fencing, and equipment, tractor and implements, chicken housing and egg processing room, and oyster tumbler.

Since MEGA began in 2010, $\$ 892,608$ total grants (an average of $\$ 8,501$ per farm) and $\$ 424,717$ of technical assistance (an average of $\$ 4,045$ per farm) have been provided through 12 rounds of the program to 105 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 FY22 the APR program protected 11 farm projects covering over 378 acres for a total consideration of over $\$ 4.4$ million. 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 |  |  |  | \(\left.\begin{array}{c}Article <br>

97 <br>

Acreage\end{array}\right]\)| Total |
| :---: |
| Consideration |$|$| 1 | Stow | Middlesex | $4 / 26 / 2022$ | 5.251 | $\$ 85,500.00$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 2 | New Braintree | Worcester | $3 / 16 / 2022$ | 48.66 | $\$ 147,250.00$ |
| 3 | Sunderland | Franklin | $12 / 20 / 2021$ | 11.093 | $\$ 175,000.00$ |
| 4 | Sunderland | Franklin | $12 / 20 / 2021$ | 26.95 | $\$ 180,000.00$ |
| 5 | Sheffield | Berkshire | $12 / 7 / 2021$ | 31.231 | $\$ 391,500.00$ |
| 6 | Whately | Franklin | $11 / 16 / 2021$ | 20.12 | $\$ 215,000.00$ |
| 7 | Sheffield | Berkshire | $10 / 21 / 2021$ | 48.63 | $\$ 534,100.00$ |


| 8 |  <br> Holliston | Middlesex | $10 / 21 / 2021$ | 28.74 | $\$ 1,110,000.00$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 9 | Hawley | Franklin | $9 / 28 / 2021$ | 76.82 | $\$ 191,250.00$ |
| 10 | Northampton | Hampshire | $9 / 21 / 2021$ | 45.105 | $\$ 635,000.00$ |
| 11 | Westport | Bristol | $8 / 4 / 2021$ | 35.48 | $\$ 820,000.00$ |

## APR Improvement Program (AIR)

## Diego Irizarry-Gerould

The APR Improvement Program (AIP) helps to 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 FY2022, the APR Improvement Program signed grant contracts awarding \$400,000 to 6 farms across Massachusetts, for an average of $\$ 66,667$ per farm. The program also awarded $\$ 32,545$ in planning and technical assistance, for an average of $\$ 5,424$ per farm. These farms have a combined total of 501 acres in APR land. Grant projects include construction of new vegetable washing, packing, and storage buildings as well as equipment and hay storage barns.

Since the program began in 2009, AIP has provided a total of $\$ 7,425,000$ in grant funding and $\$ 591,503$ of planning and technical assistance to 106 participating Massachusetts farms through 13 rounds of the program. These farms own a combined total of 15,191 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. In 2022, SARA provided grant funding of up to $\$ 35,000$ 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 FY2022, 11 respondents applied for SARA funds and a total of $\$ 155,733$ in grants were
provided to 6 APR farms in 5 different counties. These funds helped to clear field edges and fence lines and renovate pasture and hay land ( 30 acres improved), restore orchard access roads ( 3000 feet road repaired), and make drainage improvements to eliminate field wetness and erosion ( 2200 feet of drainage installed).

## Agricultural Composting Program

## Sean Bowen

Through its Agricultural Composting Program, MDAR encourages and supports composting on farms. Application of compost to agricultural soil improves tilth, soil organic matter, water holding capacity, and contributes nutrients. Composting farm manure provides a more stable form of nutrients, reducing odor, and resulting in a material which is lighter and easier to spread than manure.

Within its Division of Agricultural Conservation and Technical Assistance, MDAR administers an Agricultural Composting Registration process which allows qualifying farms to register their operations with the Department under an agricultural waste composting exemption in MassDEP's solid waste regulation, 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, may register their operation with MDAR, while adhering to MDAR's Agricultural Composting Program regulations, 330 CMR 25.00.

Agricultural Composting is defined in 330 CMR 25.02 as: "The composting of agricultural materials 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
- Vegetative material
- Food material

The Department is responsible for registering new agricultural composting sites, as well as renewing the registration of existing sites annually. In 2022, a total of 45 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.

MDAR's Agricultural Composting Improvement Program (ACIP), a grant program established in 2019 and designed to facilitate on-farm composting and compost use to improve soil on farms, provided $\$ 185,000$ in funding to 6 farms during FY22. This money helped these farms purchase
equipment such as compost spreaders, turners, and screeners, as well as the construction of new compost pads and an advanced composting system.

## Aquaculture Program 2021-2022

## Sean Bowen

Aquaculture is the 5th highest valued agriculture sector in the Commonwealth of Massachusetts. Due to the economic downturn caused by the Covid-19 pandemic, the value of the Massachusetts oyster farming industry was just over $\$ 17$ million dollars - a $40 \%$ drop since 2019 ( $\$ 29$ million) In 2020, a total of 386 aquaculture growers cultivated 1304.5 acres of area in Massachusetts. The value of the quahog industry (hard clams) was just over $\$ 1$ million, which was an increase over 2019. In addition to oysters and quahogs, Massachusetts growers also culture soft shell clams, blue mussels, bay scallops, surf clams, and a type of seaweed called sugar kelp.

In November of 2021, the Massachusetts Shellfish Advisory Panel held its first official meeting. Established in law following the recommendation of the Massachusetts Shellfish Initiative, the SAP brings together members from the Executive and Legislative branches and 15 shellfish stakeholders representing commercial, recreational, research, enforcement, and trade associations. Chaired by the Director of the Division of Marine Fisheries, the mission of the SAP is to advise the director on matters of concern relevant to shellfish fisheries, provide a forum for Massachusetts governmental entities to receive and disseminate information relevant to shellfish resources and shellfish management, and allow members of the public and representatives of governmental entities of Massachusetts to bring forth emerging issues in shellfish fisheries. Within the enabling legislation, the Commissioner of MDAR is pleased to be one of the members of the SAP.

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 FY 22, a total of $\$ 60,000$ was provided to the Centers to support the Massachusetts aquaculture industry.

## 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. Now part of the Climate Smart Agricultural suite of Programs, CSAP, AgEnergy continues to be 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 also help farms contribute to the local food production goals of the MA Food Systems Plan and the MA 2050 Zero Net Energy and De-Carbonization Goals. Since inception our annual AgEnergy Grant has now helped fund over 300 farms for a variety of energy efficiency and renewable energy projects, providing total funding of over $\$ 4.25$ million dollars toward approximately $\$ 22$ million dollars of total project construction costs, achieving over $\$ 1,500,000$ in either annual energy savings or energy generation.

2022 also represented the fourth year of DOER's SMART Program and the Agricultural Solar Tariff Generation Unit (ASTGU) incentive for dual use of agricultural land with solar PV. To date the program has now pre-approved 30 ASTGU projects through the required Pre-Determination process, totaling 38.75 MW AC and 71.4 DC in capacity. Due to Covid-19 many of those projects were placed on hold and are now beginning to initiate construction. Four projects have now been completed including Knowlton Farm in 2022. There are an additional 18 projects totaling 33.6 MW AC and 50.80 MW DC currently under review.

## AgEnergy Grant Program 2022

In FYs 2022 the Baker-Polito Administration awarded 23 AgEnergy grants totaling \$750,000 to Massachusetts farmers to implement renewable energy systems and improve energy efficiency on farms, reducing equivalent CO 2 emissions by approximately 490 tons.

Awarded through the Massachusetts Department of Agricultural Resources’ (DAR), funding was provided to farms in twenty-three (23) towns in the Commonwealth, including Brewster, Bolton, , Canton, Carver, Chilmark, Cummington, Dracut, Granville, Hadley, Hardwick, Hyannis, Leominster, Lincoln, Orange, Pepperell, Rehoboth, Shelburne, Sunderland, Truro, Vineyard Haven, Westfield, Williamstown and Worthington. -

The projects were a combination of energy efficiency and renewable energy projects including: Eleven roof- or ground-mounted, behind the meter, solar photovoltaic systems totaling over 410 kW , for a variety of farm sector operations including vegetable, cranberry, dairy , horticultural, and vineyard; Maple syrup operations improvements including new reverse osmosis, evaporators, or pre-heaters; Energy efficient s refrigerated display cases;

Heat recovery refrigeration and new compressors for a dairy; and two all-electric refrigeration delivery trucks.

Massachusetts Farm Energy Program (MFEP) - 2022

MFEP is a full-service technical assistance program helping over 800 agricultural producers across all agricultural sectors for the past $12+$ 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 2022, MFEP provided more than 130 Massachusetts farms with technical and financial assistance, and partnered with federal and state agencies, public utilities, and nonprofits to develop and complete 11 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.

The 11 projects installed in 2022 resulted in annual savings of over $11,000 \mathrm{kWh}$ of electricity, 29 cords of wood, and more than 224 tons of CO2. Seven solar photovoltaic projects completed in 2022 are generating over $365,000 \mathrm{kWh}$ of electricity annually.

Energy efficiency improvements installed at farms in 2022 included energy efficient lighting and efficient evaporators for maple producers.

MFEP leveraged over $\$ 159,000$ in federal and ratepayer funds and committed $\$ 293,076$ in MDAR incentives (including \$4,000 in MFEP funds) to energy efficiency and renewable energy projects in 2022. Farm energy projects for 2022 resulted in annual energy cost savings of approximately $\$ 61,111$, helping farms create and maintain jobs and reinvest savings into the farming operation and local economy.

MFEP staff also provided one-on-one mentoring to 13 farms preparing to submit projects for MDAR's Climate Smart Agriculture Program (CSAP) and 2 submitting to USDA REAP - resulting in several highly competitive grant awards. Staff presented information on completing these applications to farms via webinar and distributed a bi-monthly newsletter. In addition, MFEP staff collaborated with Berkshire Agricultural Ventures to discuss what MFEP can offer to farms in the Berkshires, as well as with National Resource Management (NRM) to discuss how we can partner to help farms with their refrigeration needs. MFEP staff also exhibited at the New England Vegetable and Fruit Conference in December and shared resources and information about Program.

MFEP also generates newsletters and conducts webinars. Past MFEP newsletters and webinar recordings are available to anyone at any time on the News page News \& Events - MA Farm Energy Program (massfarmenergy.com) of the MFEP website. The link to the webinar recording is also distributed to all registrants after each session, regardless of attendance.

## Farm Viability Enhancement Program - FY2022

## Melissa Adams

During Fiscal Year 2022, the Farm Viability Enhancement Program selected 7 farms to participate in the Program, and provided $\$ 25,644$ in business planning and technical assistance to 5 farms ( $\$ 5,129$ average per farm). Of these, 4 farms received grant funding and were placed under Agricultural Covenants protecting 322 acres. A total of $\$ 300,000$ in direct grants was provided to these four farms. Improvement projects funded with FVEP grants include: a new farm store with commercial kitchen, a wash pack building, an equipment storage barn, blueberry processing equipment, barn renovations, and farm road improvements.

Since the Farm Viability Program was initiated in 1996, 534 farms have been selected to participate in the program. A total of 459 farms have now been protected by Covenants and received grant awards.

Farm Viability Enhancement Program Results to date include:

- 459 farms have benefited from assistance and grant funding;
- 45,036 acres placed in protective covenants;
- Total of grants paid to participant farms $\$ 21,296,472$, an average of $\$ 46,398$ per farm;
- Total spending on grants per acre placed in protective covenant: $\$ 472$ per acre.

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 95 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

## Rose Arruda

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, and restrictive zoning rules.

FY 2022: MDAR received sixteen (16) proposals; a total of eleven (11) grants were awarded for proposals totaling $\$ 288,188$. Projects ranged from soil regeneration, commercial greenhouses, and infrastructure improvements.

## Massachusetts Food Venture Program

## 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 $\$ 250,000$, 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.

## FY 2022:

The Food Venture Program received $\$ 1,000,000$ in funding for the Food Ventures Program in fiscal year 2022; the program received fourteen (14) applications; funding was awarded to seven (7) projects and totaled $\$ 1,000,000$.

## Massachusetts Food Trust Program

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 \$1,300,000 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'22.

Since its inception in FY' 19, 48 (forty-eight) projects, representing 10 (ten)counties, have made some impressive economic impacts: they combine to have created or retained 678 jobs by our latest estimates, and will affect an estimated 250,000 people with greater access to fresh food. Almost $90 \%$ of the projects accept or plan to accept SNAP and half accept WIC; all offer local MA food. Two businesses are immigrant-owned, 25 (twentyfive) are women-owned, and 16 (sixteen) are owned by entrepreneurs-of-color.

## MA Emergency Food Assistance Program (MEFAP)

MEFAP provides food products for citizens of the Commonwealth in need. Through the
program, a consistent supply of quality, nutrient-rich foods and locally grown fresh produce has been provided through four food banks to 968 emergency food providers (pantries, kitchens, shelters). MEFAP consists of two food purchasing programs - Core Food, representing $90.5 \%$ of funding for food purchases and The Massachusetts Grown Initiative, representing $7.5 \%$ of food purchase funding; an administrative charge of $2 \%$ is retained by the Dept. of Agricultural Resources.

The Greater Boston Food Bank is the largest food bank in the state and receives $68.5 \%$ of MEFAP funding in FY'21.

Current Total MEFAP funding in the FY 2022-line item is $\$ 30,000,000$. FY'22:

## Total Funding: \$30M

Core Food Purchases:
$\$ 26.2 \mathrm{M}$
Mass Grown Initiative: \$ 2.191M

## Food Banks Operating

Funds: \$1M


[^0]:    ${ }^{1}$ All statistics are from the 2017 USDA Census of Agriculture unless noted otherwise.
    ${ }^{2}$ The United States Department of Agriculture defines small farms as farms with sales below \$250,000.
    ${ }^{3}$ 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
    ${ }^{4}$ 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/statearea.html [Accessed May, 2018]
    ${ }^{5}$ United States Department of Agriculture. (2017). Land values 2017 summary. Retrieved from
    https://www.nass.usda.gov/Publications/Todays Reports/reports/land0819.pdf [Accessed February, 2020]

[^1]:    ${ }^{6}$ All numbers in the produce section includes cranberries.
    ${ }^{7}$ Cape Cod Cranberry Growers' Association. (2018). Frequently asked questions. Retrieved from https://www.cranberries.org/faqs [Accessed February, 2020]
    ${ }^{8}$ National Agricultural Statistics Service. (2019). Cranberry highlights. Retrieved from https://www.nass.usda.gov/Statistics by State/Wisconsin/Publications/Crops/2019/WI-Cranberries-Annual-0619.pdf [Accessed February, 2020]
    ${ }^{9}$ National Agricultural Statistics Service. (2012). Cranberries. Retrieved from https://www.nass.usda.gov/Statistics by State/New England includes/Publications/Annual Statistical Bulletin/2 012/crans2012.pdf [Accessed February, 2020]

[^2]:    ${ }^{10}$ Cranberry Marketing Committee. (2019). Industry News. Retrieved from https://www.uscranberries.com/industry-news/mfp-tariff-relief-payments/ [Accessed February, 2020]
    ${ }^{11}$ Internal MDAR Animal Health records
    ${ }^{12}$ 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 [Accessed May, 2018]
    ${ }^{13}$ Average cost of production for milk is determined by UMASS Amherst studies

